

ORACLE®

Managing the Oracle Application Server with Oracle Enterprise Manager 10g Grid Control

Agenda

- Grid Management Challenges
- Oracle's Grid Management Solution
- Management Architecture
- Application Server Management Features
 - Grid Management
 - Application Server System Management
- Q&A

Grid Management Challenges

Grid Management Challenges

- Deliver highest quality of service for wide variety of services
- Maintain or lower IT management costs

Traditional management tools
are not up to this task

Traditional Management vs Grid Management

Traditional Management assumes...

- Lots of systems
- All different
- All special
- **COMPLEXITY**

Traditional management tools

manage complexity

Traditional Management vs Grid Management

Grid Management delivers...

- Lots of systems organized into few groups of like systems
- All standardized
- Zero exceptions
- **SIMPLICITY**

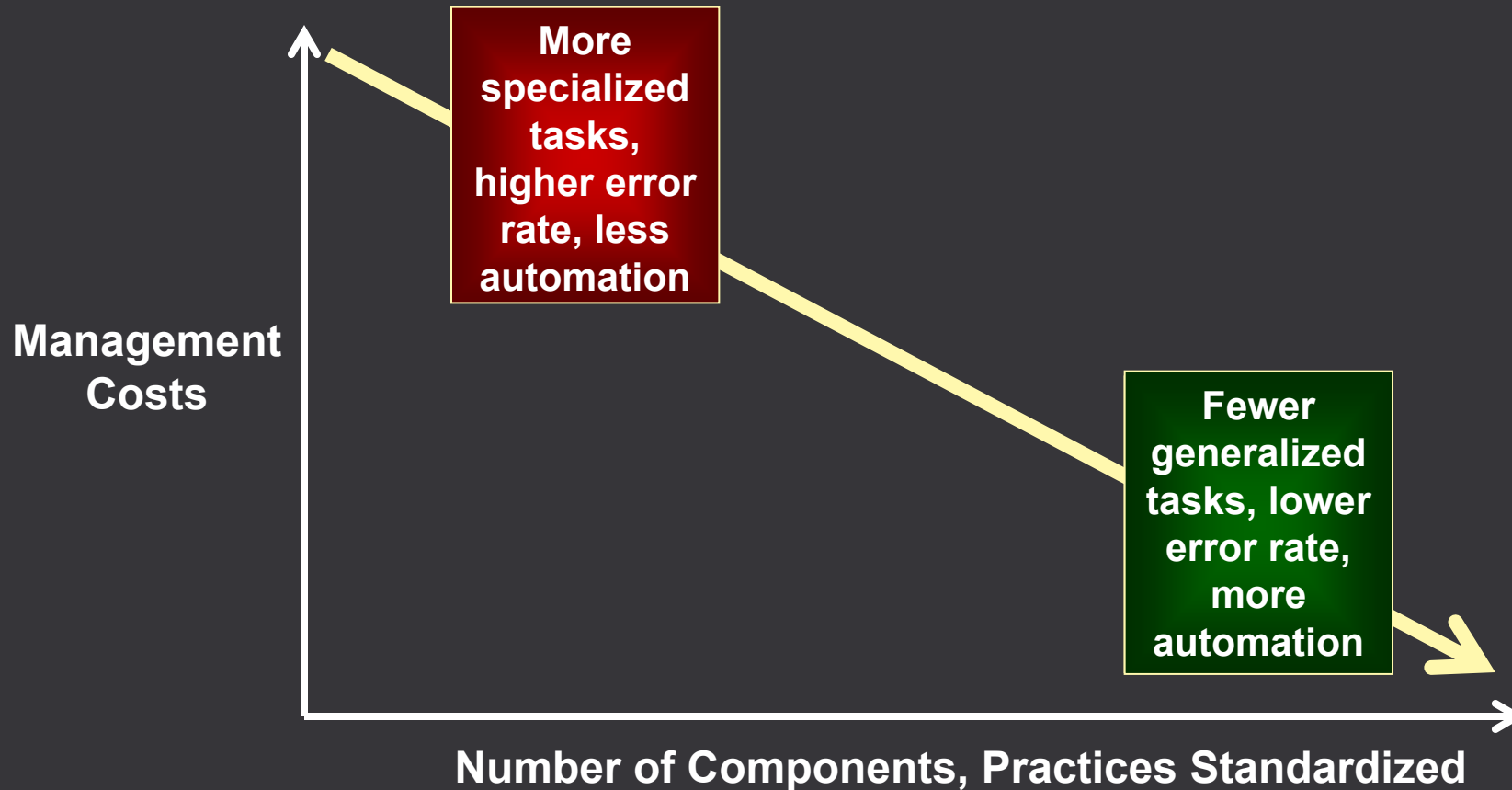
Grid management tools

eliminate complexity

Grid Management Mandates a New Management Approach

- **Traditional:** Support complexity
- **Grid:** Reduce/eliminate complexity
- **Traditional:** Expensive human specialists
- **Grid:** Automated standard tasks
- **Traditional:** Complex "unifying" frameworks
- **Grid:** Well tested simple tools
- **Traditional:** Error prone
- **Grid:** Highly reliable

The Value of Standardization



Grid Management Bottom Line

Simplicity of systems is inherently

- more reliable
- more predictable
- lower cost

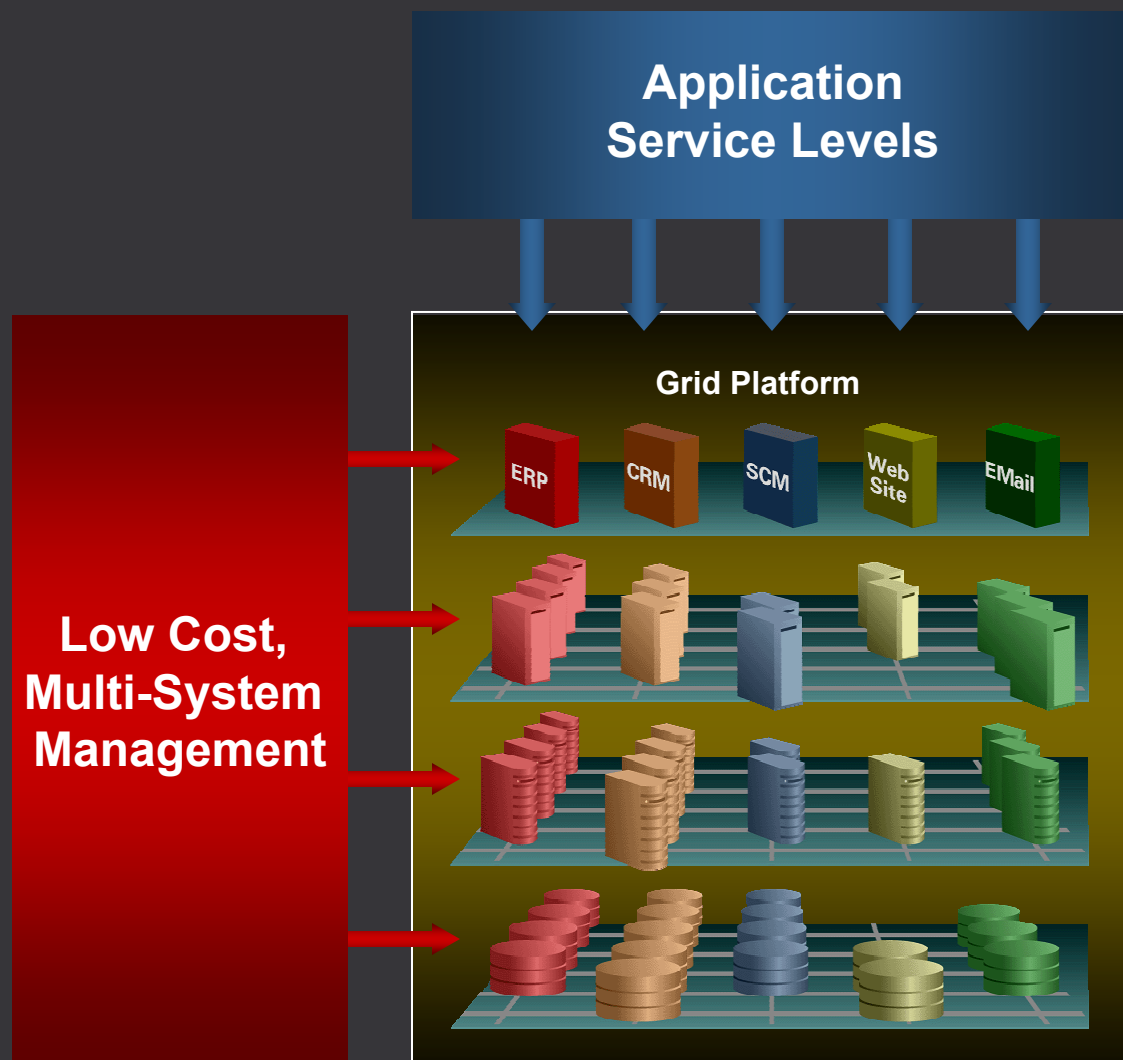
Oracle's Grid Management Solution

ORACLE®

Grid Control Mission

- Optimize application service levels
 - Better availability
 - Greater reliability
 - Consistent predictability
 - Improve speed of change
- Lower total cost of ownership
 - Simplify through standardization
 - Manage more with less
 - Eliminate human error

Grid Control Solution



Optimize Service Levels

- Model topologies
- Measure performance
- Diagnose root cause

Lower Costs with Grid Management

- Model 'like' components
- Manage sets as one
- Enforce standardization
- Automate tasks

Manage the Complete Oracle Grid

Application Service
Level Management



Oracle Collab Suite

Oracle Applications

Integrated Suite
Management



Oracle AS

J2EE

Integration

Web Services

OHS

Web Cache

Portal

Wireless

SSO



Component Level
Management



WebSphere software

Management for
Oracle Eco-System

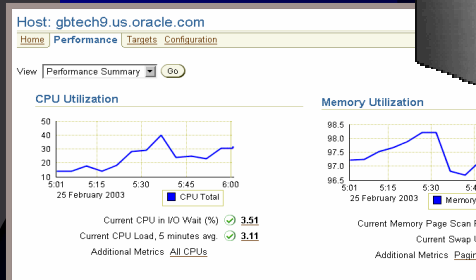


ORACLE

Integrated

One tool lowers learning curve, improves Quality of Service

Host and Hardware



Database

State

Active Sessions 19
SQL Response Time (%) 83.87
(compared to baseline)
Bad SQL 11
Top SQL Report 238
Duplicate SQL 738
Latest Alert Log Entry No ORA- errors

OracleAS

Application Server: ias902.dlsun1641.us.oracle.com

Home Applications Websites Performance

View Top Applications by Average Servlet/JSP Processing Time

Name	OC4J Instance	Total Processing Time (seconds)	Average Servlet/JSP Processing Time (seconds)	Servlet/JSP Requests Processed	Servlet Processing Time (sec)
hrapp	home	167.28	12.69	11	1
default	home	562.77	0.17	3,235	5
...

Network and Load Balancer



Administration Configuration Monitoring Provisioning Security

Grid Control

Applications/ Collab Suite



Collaboration Suite: My Collaboration Suite

Home | Suite Infrastructure Administration Performance Maintenance

Component Status

Component Name	Status	Target Name	Target Type	Severity	Alert Triggered
Calendar	OK	MyCollabSuite	Collaboration Suite	OK	Oct 17, 2002 6:15:42 PM
Calendar	OK	MyCollabSuite	Collaboration Suite	OK	Oct 15, 2002 6:43:42 AM
Files	OK	Host	Host	OK	Oct 14, 2002 12:00:03 PM
Files	OK	Host	Host	OK	Oct 11, 2002 1:50:02 PM
Files	OK	Host	Host	OK	Oct 10, 2002 4:41:32 PM

Alerts

Related Links

Components

Select Name	Status	Status Details	Response Time (seconds)
Calendar	OK	10 of 20 down, 1 blackedout, 1 unavailable	2.50
Files	OK	All 10 instances are up	5.50
Files	OK	All 12 instances are down	10.50

Storage

Qtrees (ordered by Used (%))

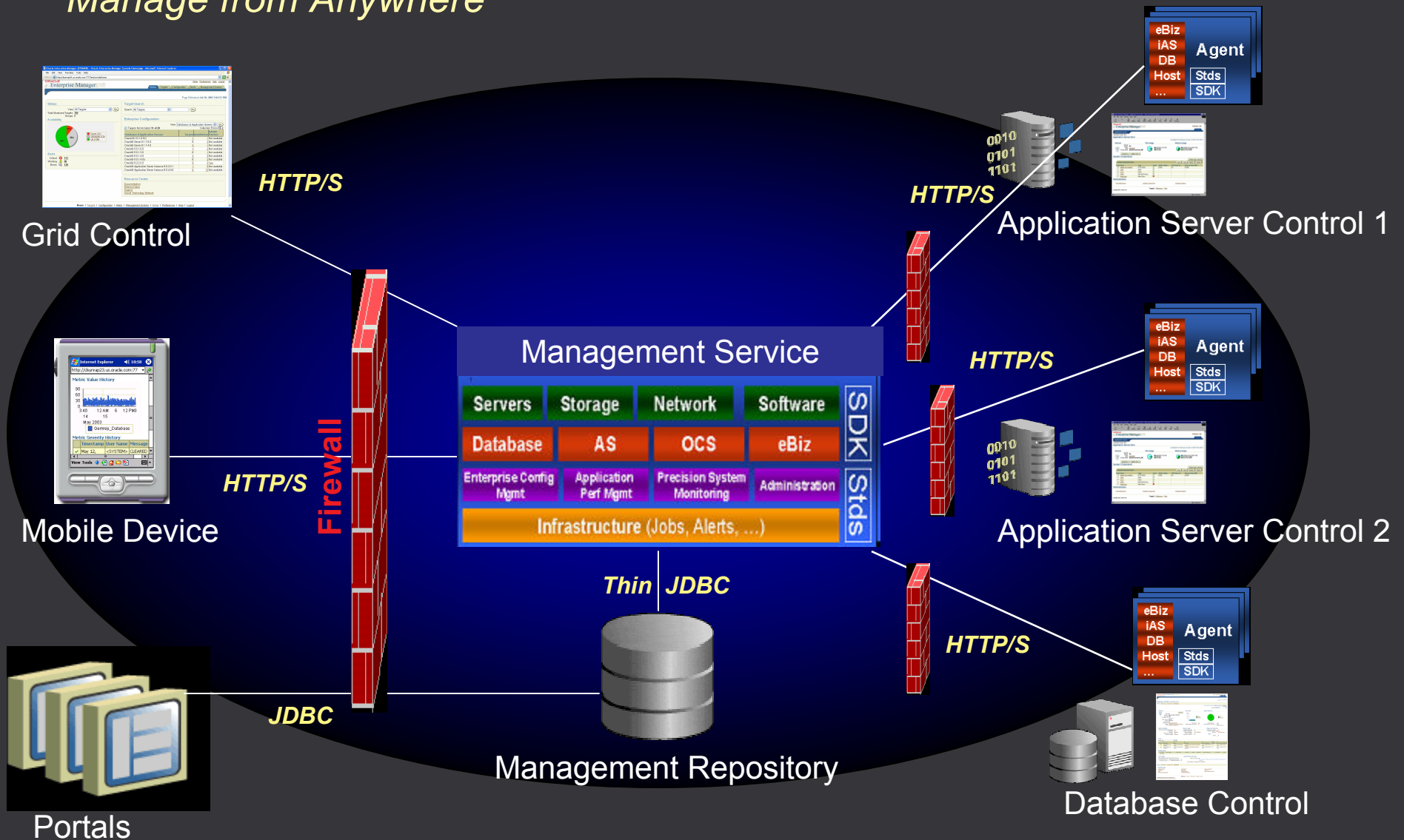
Status	Name	Volume	Total(GB)	Used(GB)	Used (%)
OK	slot3	db04	60.0	58.82	98.03
OK	edw_top	apptop04	250.0	231.46	92.59
OK	local_backup	backup04	250.0	219.68	87.87
OK	opm_top	apptop04	350.0	298.85	85.39
OK	slot1	db04	60.0	48.51	80.85
OK	slot2	db04	60.0	47.92	79.87
OK	slot4	db04	60.0	47.65	79.41
OK	arubackup	backup04	100.0	62.67	62.67
OK	ap981sun	apptop04	50.0	26.3	52.61

ORACLE

Management Architecture

Management Architecture

Manage from Anywhere

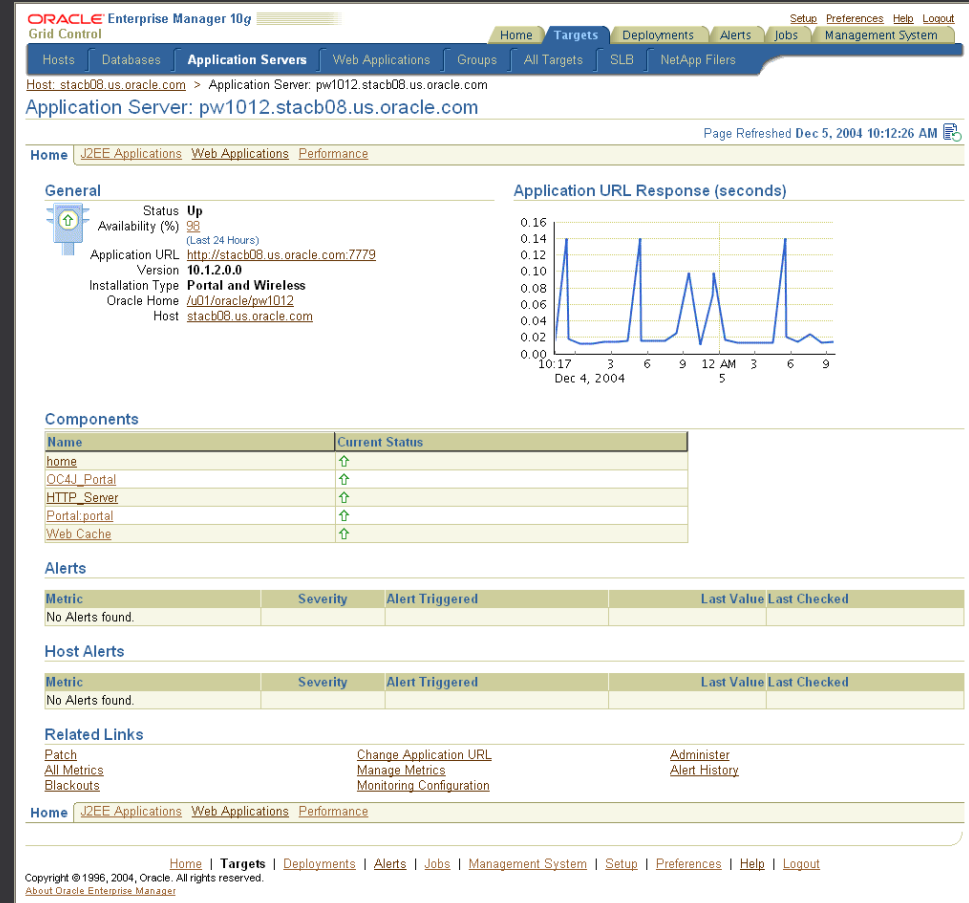


ORACLE®

Out-of-Box Ready

Realize Immediate Value

- Grid Control
 - Management of all the Oracle Grid components
 - Centrally manage entire enterprise
 - Out-of-box management for all Oracle products
- Product Controls
 - Fully functional standalone management
 - Out-of-box with each product



Application Server Management Features

Application Server Management Features

- Grid Management
- Application Server System Management

Application Server Management Features: Grid Management

Application Server Management Features: Grid Management

- Application Server Discovery
- Topology View
- Consolidated Group Management
- Out-of-box Monitoring
- Historical Collections & Analysis
- Task Automation
- Configuration Management
- Automated Provisioning & Administration
- Application Service Level Management

Application Server Discovery

- Discovery is process of adding targets to Agent for central monitoring
- Three different ways to discover Application Server instances
 - Install Agent on Application Server machine (i.e. automatic discovery)
 - From Grid Control, click Add from Application Servers subtab
 - From OracleAS Control, click Configure from Central Mgmt area of Infrastructure property page

Topology View

Visualize and easily manage Application Server environment

- Graphical representation of Application Server topology
- Real-time view of processes managed by OPMN
- Perform common administrative tasks from topology view

Topology View

ORACLE Enterprise Manager 10g
Application Server Control

[Logs](#) [Topology](#) [Preferences](#) [Help](#)

Topology

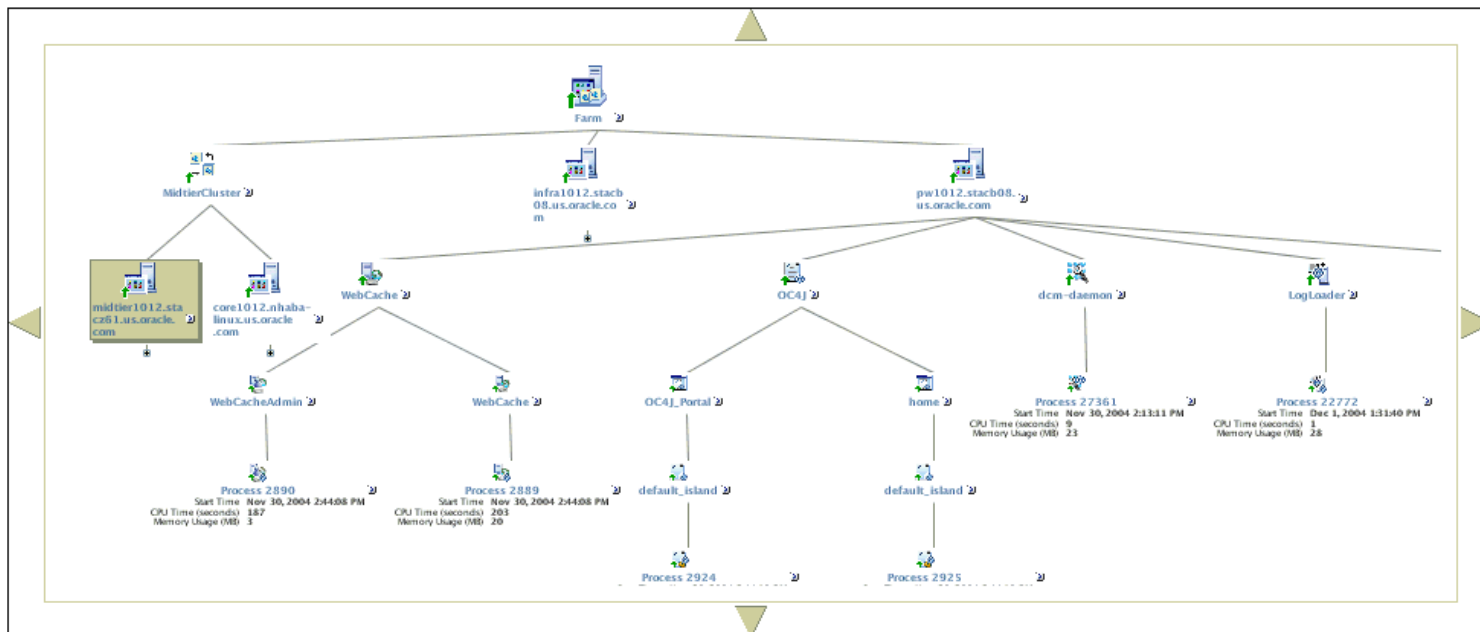
[Return to Farm](#)

Page Refreshed Dec 5, 2004 8:07:32 AM

View Data 1 Minute Refresh

[Show Navigator](#)

Search midtier1012 Go Zoom Small



[Return to Farm](#)

[Logs](#) | [Topology](#) | [Preferences](#) | [Help](#)

Copyright © 1996, 2004, Oracle. All rights reserved.
[About Oracle Enterprise Manager 10g Application Server Control](#)

ORACLE

Consolidated Group Management

Manage many distributed systems as one



- Logical modeling of sets of systems
 - Applications
 - Farms
 - Clusters
- Managed from a single-view
 - Monitoring and automated operations
- Leveraged by all services – notifications, blackouts, jobs...

Consolidated Group Management

ORACLE Enterprise Manager 10g
Grid Control

[Setup](#) [Preferences](#) [Help](#) [Logout](#)

[Home](#)

[Targets](#)

[Deployments](#)

[Alerts](#)

[Jobs](#)

[Management System](#)

[Hosts](#)

[Databases](#)

[Application Servers](#)

[Web Applications](#)

[Groups](#)

[All Targets](#)

Group: Production Application Servers

Page Refreshed Jun 5, 2004 4:23:23 PM

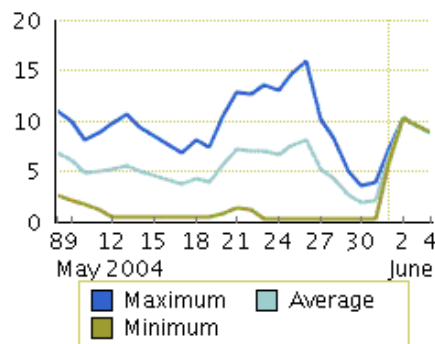
[Home](#)

[Performance](#)

[Member Targets](#)

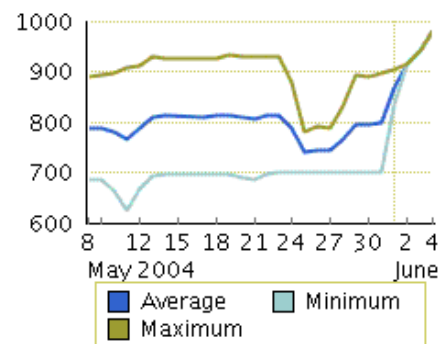
View Data

Application Server : Resource Usage : CPU Usage (%)



[Compare Metrics](#)

Application Server : Resource Usage : Memory Usage (MB)



[Compare Metrics](#)

[Home](#)

[Performance](#)

[Member Targets](#)

[Home](#) | [Targets](#) | [Deployments](#) | [Alerts](#) | [Jobs](#) | [Management System](#) | [Setup](#) | [Preferences](#) | [Help](#) | [Logout](#)

Copyright © 1996, 2004, Oracle. All rights reserved.

[About Oracle Enterprise Manager](#)

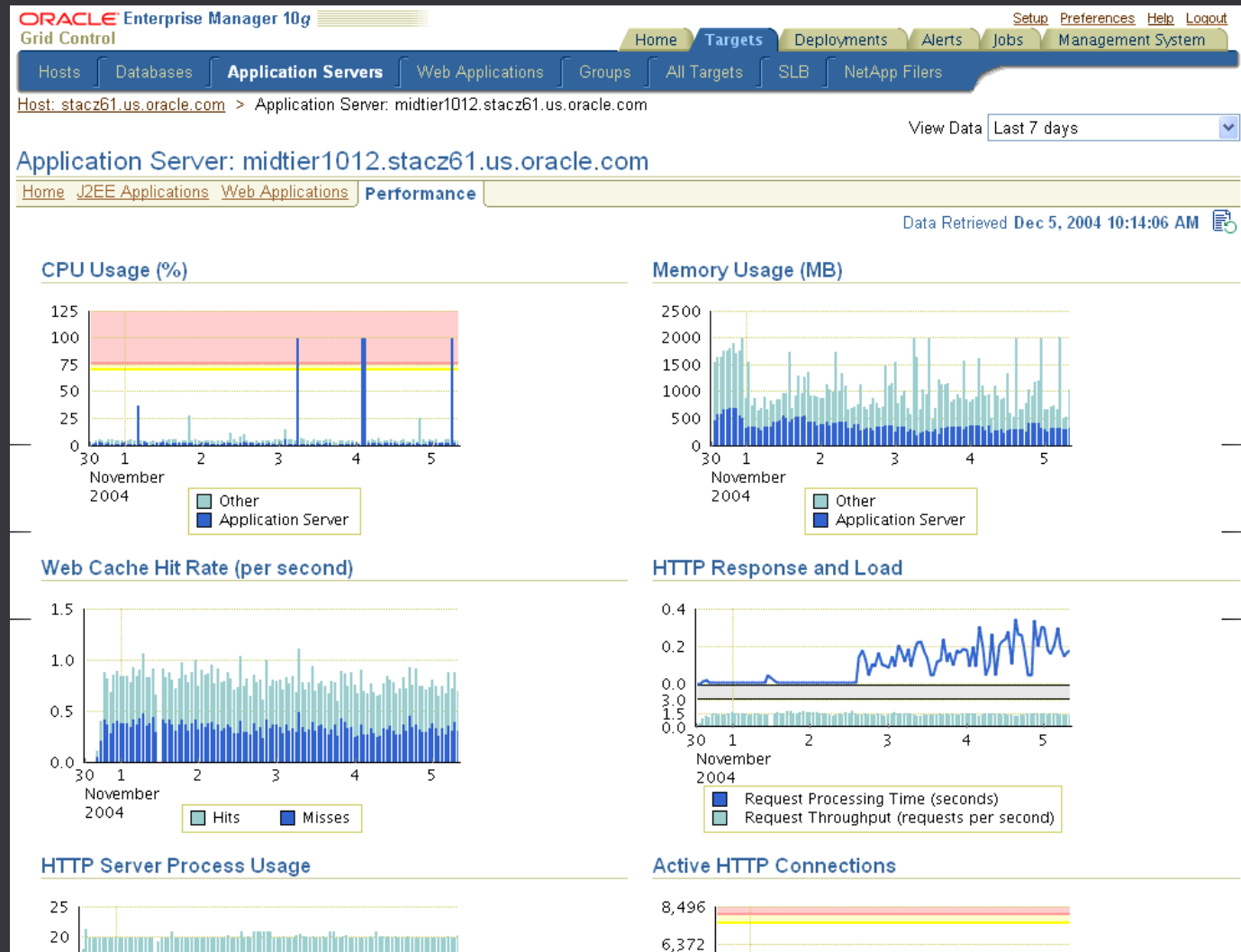
ORACLE

Out-of-Box Monitoring

Realize immediate monitoring value

- Monitor Application Server level as well as component level
- Automatic performance and availability monitoring with Oracle recommended settings
- Out-of-box notifications for critical alerts
- Summary view for rapid problem identification

Out-of-Box Monitoring



Historical Collections & Trending

Easily track performance trends

- Performance and availability data automatically collected
- Data stored in Management Repository
- Analyze performance and availability data over time
 - Diagnose past problems as they occurred
 - Look for trends

Historical Collections & Trending

ORACLE Enterprise Manager 10g
Grid Control

HomeTargetsDeploymentsAlertsJobsManagement System

HostsDatabasesApplication ServersWeb ApplicationsGroupsAll Targets

Application Server: oas904.dlsun1648.us.oracle.com > All Metrics > CPU Usage (%) > Compare Targets

CPU Usage (%)

Latest Data Collected From Target Jun 5, 2004 4:04:31 PM
View Data Last 24 hours

Statistics for Last 24 Hours

Last Known Value **8.62**
Average Value **8.87**
High Value **16.46**
Low Value **5.52**
Warning Threshold **70**
Critical Threshold **75**
Threshold Occurrences **2**

Metric Value, From Repository

4:27 6 8 10 12 AM 2 4 6 8 10 12 PM 2
Jun 4, 2004 5

EnterpriseManager0.stams03.us.oracle.com
oas904.dlsun1648.us.oracle.com

Alert History for Last 24 Hours

Severity	Timestamp	Message	Details
(No alerts)			

Related Links

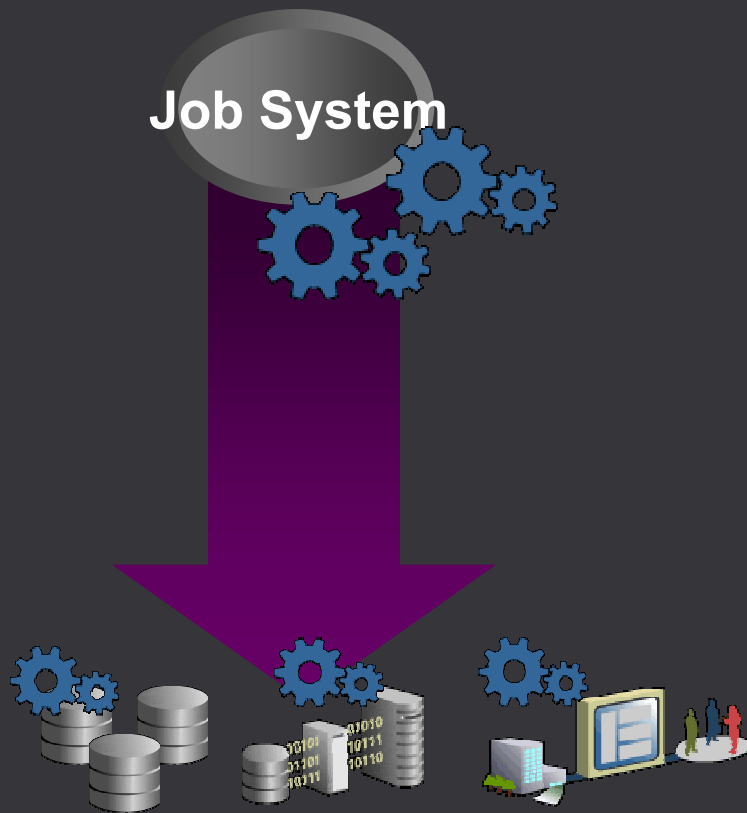
Compare TargetsManage Metrics

HomeTargetsDeploymentsAlertsJobsManagement SystemSetupPreferencesHelpLogout

Copyright © 1996, 2004, Oracle. All rights reserved.
About Oracle Enterprise Manager

Task Automation

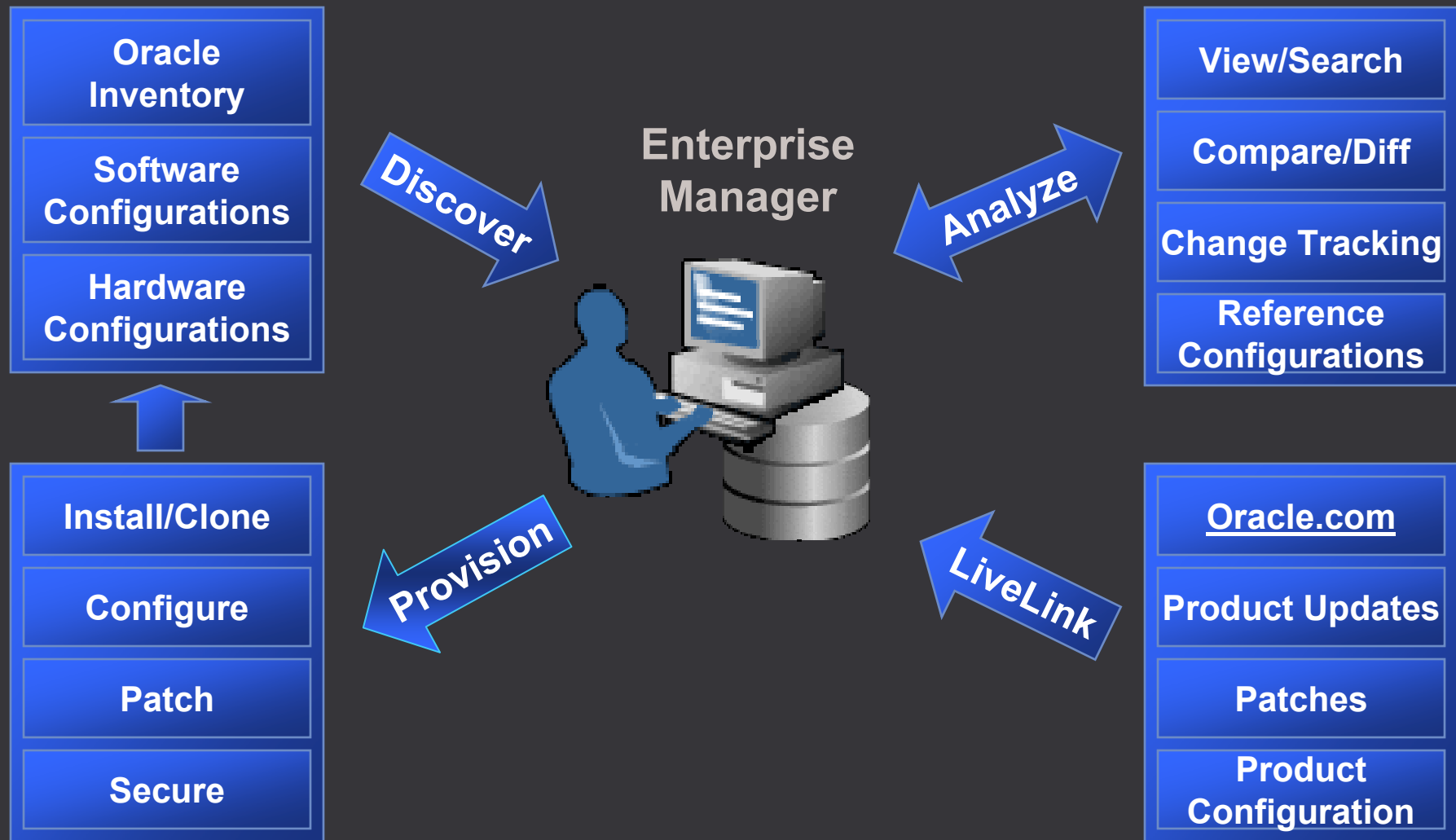
Automate any operation across large sets of systems



- Execute simple or complex tasks across 100's of systems
- Pre-packaged jobs
- Generic job types
 - OS command
- Ad hoc job creation
 - Custom scripts
- Flexible scheduling

Configuration Management

Reduce costs associated with software and hardware inventory and maintenance



ORACLE®

Configuration Management

ORACLE Enterprise Manager 10g
Grid Control

HomeTargetsDeploymentsAlertsJobsManagement SystemSetupPreferencesHelpLogout

Comparison Results Summary

Comparison Results Summary

First Host **nhaba-linux.us.oracle.com**
Date **Jun 5, 2004 10:59:57 AM**

Second Host **stams03.us.oracle.com**
Date **Jun 5, 2004 8:28:42 AM**

Hardware & Operating System

Comparison Result	nhaba-linux.us.oracle.com	stams03.us.oracle.com
Different	i686, 2 CPUs, 500.15625 MB Memory	i686, 2 CPUs, 5793.0546875 MB Memory
Different	Red Hat Linux Advanced Server release 2.1AS (Pensacola) 2.4.9 e.25enterprise (32-bit)	Red Hat Enterprise Linux AS release 3 (Taroon) 2.4.21.9

Oracle Software

Compare Products

Product	nhaba-linux.us.oracle.com	stams03.us.oracle.com
Additional Management Agent 10.1.0.2.0	✓	✓
Enterprise Manager 10g Grid Control Using an Existing Database 10.1.0.2.0		✓
Oracle Universal Installer 10.1.0.2.0		✓
Oracle9i Database 9.2.0.1.0		✓
OracleAS Infrastructure 10g 9.0.4.0.0	✓	

OS-Registered Software

Previous 1-10 of 1961 Next 10

Product	Vendor	nhaba-linux.us.oracle.com	stams03.us.oracle.com
4Suite 0.11	Red Hat, Inc.	✓	
4Suite 0.11.1	Red Hat, Inc.		✓
a2ps 4.13b	Red Hat, Inc.	✓	✓
acl 2.2.3	Red Hat, Inc.		✓
adjtimex 1.11	Red Hat, Inc.	✓	
alchemist 1.0.18	Red Hat, Inc.	✓	
alchemist 1.0.27	Red Hat, Inc.		✓
alchemist-devel 1.0.18	Red Hat, Inc.	✓	
alien 7.24	Red Hat, Inc.	✓	
am-utils 6.0.6	Red Hat, Inc.	✓	

Previous 1-10 of 1961 Next 10

HomeTargetsDeploymentsAlertsJobsManagement SystemSetupPreferencesHelpLogout

Copyright © 1996, 2004, Oracle. All rights reserved.
About Oracle Enterprise Manager.

Configuration Management

ORACLE Enterprise Manager 10g
Grid Control

Setup Preferences Help Logout

Home Targets Deployments Alerts Jobs Management System

Select Patch

Select Destination

Set Credentials

Stage or Apply

Schedule

Summary

Patch: Select Patch

Cancel Step 1 of 6 Next

To look up patches at OracleMetaLink, enter search criteria and click Search. This may take a few moments depending on the number of matches found. From Search Results, select the patch to be applied and click Next.

Search by Criteria

Search by Number

Product Family

Oracle Application Server Products (iAS)

Product

Containers for J2EE

Release

9.0.4.0

(Find patches matching the release, and the most recent patchset for the release.)

Platform

Solaris Operating System (SPARC 32-bit)

(If you run a 32-bit Oracle product on a 64-bit operating system, choose a 32-bit platform.)

Language

any

Begin Date

(Example: 12/15/02)

End Date

(Example: 12/15/02)

Search Clear

Search Results

View Details View ReadMe

Previous 1-10 of 26 Next 10

Select	Created On	Patch Number	Type	Product	Platform	Release	Description	Status
<input checked="" type="radio"/>	May 25, 2004	2923640	Patch	Containers for J2EE	Generic Platform	9.0.4.0	NLS: FATAL OUTPUT LACK OCCURS IN THE JSP USING TAGLIB UNDER THE NLS ENVIRONMENT	available
<input type="radio"/>	May 6, 2004	2938646	Patch	Containers for J2EE	Generic Platform	9.0.4.0	9IAS CLUSTER USING 2 NICS FAILS SESSION REPLICATION	available
<input type="radio"/>	Mar 26, 2004	3382872	Patch	Containers for J2EE	Solaris Operating System (SPARC 32-bit)	9.0.4.0	LRG: DEPLOYMENT OF EJB APP USING DCMCTL FAILED	available

Configuration Management

ORACLE Enterprise Manager 10g
Grid Control

HomeTargetsDeploymentsAlertsJobsManagement SystemSetupPreferencesHelpLogout

Source HomeSource SettingsDestinationParametersScheduleReview

Clone Oracle Home: Source Settings

Source Host dlsun2305.us.oracle.com
Source Location /private/oracle/core10gprod

CancelBackStep 2 of 6Next

Working Directory

A working directory on the source host, is required to stage files for cloning. Supply the name of an existing directory on the host.

* Working Directory Location /tmp

Files to Exclude

Specify the files that you do not want to clone. Separate files using a comma. Use * for wildcarding.

Files to Exclude *.log,*.dbf

Host Credentials

Provide the host username and password for the home to be cloned.

* Username oracle
* Password

CancelBackStep 2 of 6Next

HomeTargetsDeploymentsAlertsJobsManagement SystemSetupPreferencesHelpLogout

Copyright © 1996, 2004, Oracle. All rights reserved.
[About Oracle Enterprise Manager](#)

Configuration Management: Capacity-on-Demand



1

Load increase
identified --
additional resources
required

2

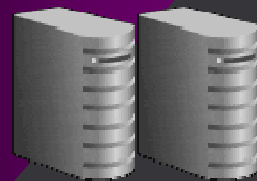
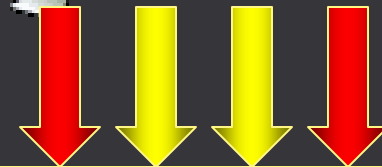
Systems chosen for
deployment from
available hardware

3

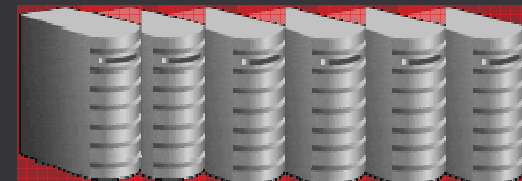
New servers added to
application

- Image/Clone OracleAS
- Instantiate the new OracleAS instance:
 - Associate OracleAS with Infrastructure
 - Add OracleAS to cluster

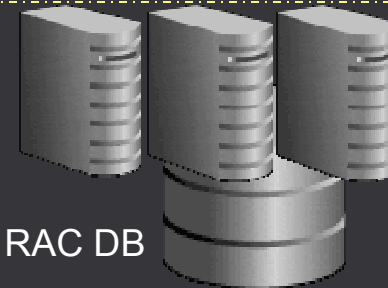
Production Application



New Hardware



Application Servers



RAC DB

ORACLE®

Configuration Management: Policy Management

Standardize and enforce best practices

- Out-of-box policy definitions
- Identify security vulnerabilities
 - Process permissions
 - Access logging turned on
 - Enabled directory indexing
- Search enterprise for policy violations

Configuration Management: Policy Management

ORACLE Enterprise Manager 10g
Grid Control

Setup Preferences Help Logout
Home Targets **Deployments** Alerts Jobs Management System

Manage Policy Violations

Page Refreshed Jul 11, 2004 1:32:26 PM

This page shows existing policy violations for your enterprise. You can ignore existing policy violations so that they are not included on summary pages that display violation counts. Ignoring an existing policy violation does not prevent future violations for other targets. You can completely disable a policy on the [Manage Policy Library](#) page.

Search Criteria

Priority: High

Category: Security

Policy Rule: any

Violation Value: contains

Non-Compliant Since: (Example: 12/15/02)

Target Type: HTTP Server

Target Name: contains

Group Name: contains

Specify groups that contain targets

☐ Include Ignored Violations

Search

Clear

Results

To ignore a policy violation, check Ignore and then click Apply. You can check Ignore or uncheck Ignore for all of the violations in the search results table using Mark All Ignored and Clear All Ignored.

Apply

Revert

Mark All Ignored

Clear All Ignored

Priority	Target Name	Target Type	Policy Rule	Category	Violation Name	Violation Value	Last Evaluation	Non-Compliant Since	Ignore
✖	oas904.dlsun1648.us.oracle.com_HTTP_Server	HTTP Server	HTTP_Server_Directory_Indexing	Security	Directory Indexing	enabled	Jul 10, 2004 1:57:35 PM	Jul 1, 2004 12:05:23 PM	<input type="checkbox"/>
✖	core904prod.dlsun2305.us.oracle.com_HTTP_Server	HTTP Server	HTTP_Server_Directory_Indexing	Security	Directory Indexing	enabled	Jul 10, 2004 2:28:41 PM	Jul 1, 2004 12:54:06 PM	<input type="checkbox"/>
✖	EnterpriseManager1.stams03.us.oracle.com_HTTP_Server	HTTP Server	HTTP_Server_Directory_Indexing	Security	Directory Indexing	enabled	Jul 10, 2004 3:27:41 PM	Jun 30, 2004 3:27:40 PM	<input type="checkbox"/>

Home | Targets | **Deployments** | Alerts | Jobs | Management System | Setup | Preferences | Help | Logout

Copyright © 1996, 2004, Oracle. All rights reserved.
[About Oracle Enterprise Manager](#)

Automated Provisioning & Administration

Automate configuration changes across cluster

- Application Server Farm
 - Collection of instances using same Farm Repository
 - Clustering operation driven off instances in farm
- Application Server Clusters
 - Management support for DB-based repository and file-based repository
 - Automate instance configuration across cluster
 - Automate application deployment across cluster

Automated Provisioning & Administration

ORACLE® Enterprise Manager 10g
Application Server Control

[Topology](#) [Preferences](#) [Help](#)

Farm: infradb.us.oracle.com

Instances can be grouped and managed together by configuring standalone instances in a common repository. This collection of instances is known as an Oracle Application Server Farm.

Repository Type **Database**

Clusters

[Create Cluster](#)

[Start](#) [Stop](#) [Restart](#) [Delete](#)

Select	Name	Status	Instances
<input checked="" type="radio"/>	MidtierCluster	↑	2

Standalone Instances

These instances belong to the farm but are not part of any cluster.

[Join Cluster](#)

Select	Name	Host	Oracle Home
<input checked="" type="radio"/>	infra1012.stacb08.us.oracle.com	stacb08.us.oracle.com	/u01/oracle/infra1012
<input type="radio"/>	pw1012.stacb08.us.oracle.com	stacb08.us.oracle.com	/u01/oracle/pw1012

[Topology](#) | [Preferences](#) | [Help](#)

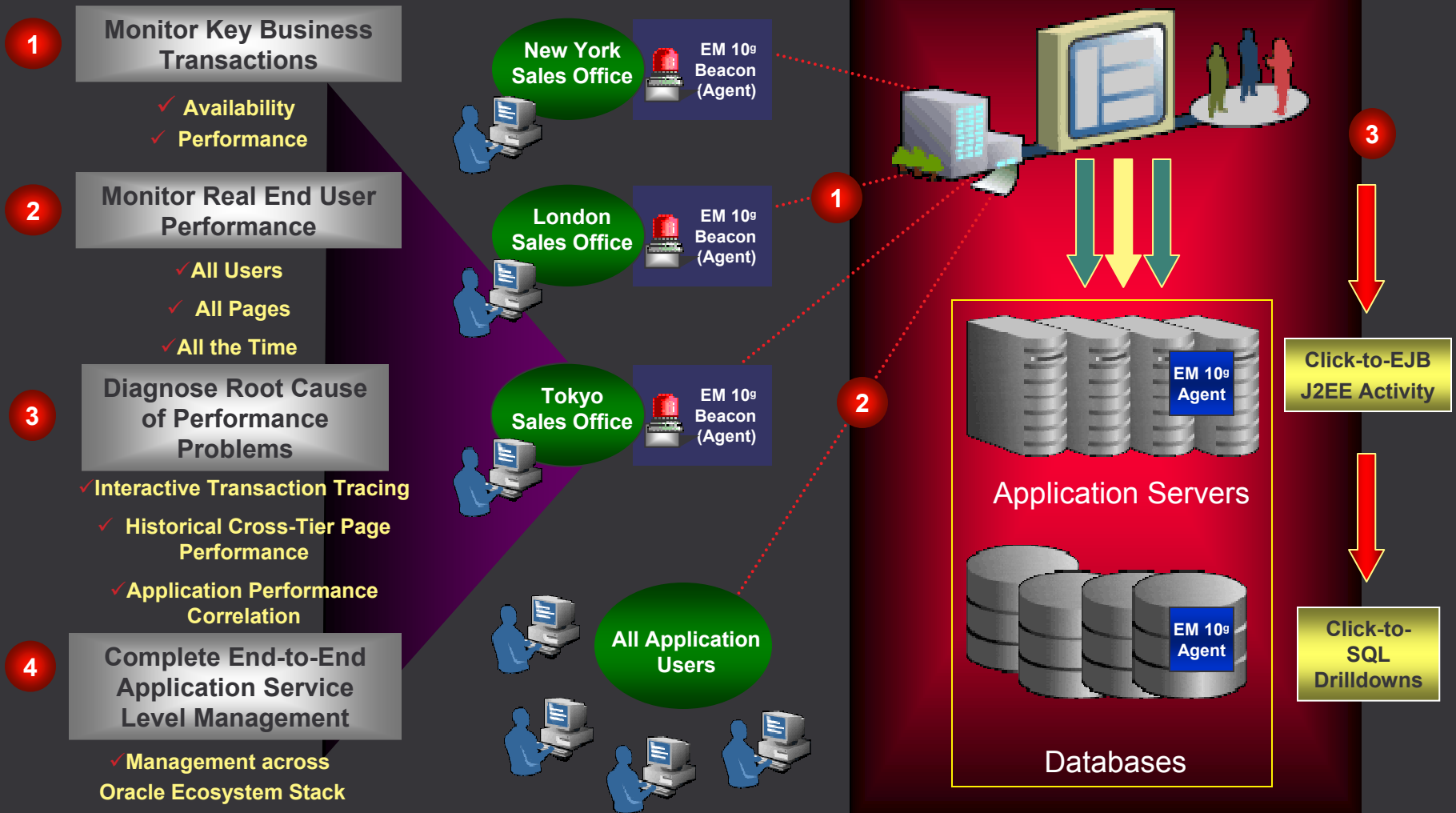
Copyright © 1996, 2004, Oracle. All rights reserved.

[About Oracle Enterprise Manager 10g Application Server Control](#)

ORACLE®

Application Service Level Mgmt

End-to-End Performance, Availability & Diagnostics



ORACLE®

Application Service Level Mgmt



Application Service Level Mgmt

ORACLE Enterprise Manager 10g
Grid Control

HomeTargetsDeploymentsAlertsJobsManagement System

DatabasesHostsApplication Servers**Web Applications**GroupsAll Targets

Web Application: Petstore

HomeTransaction PerformancePage PerformanceComponentsAdministration

Page Refreshed Jun 3, 2004 4:53:13 PMView DataLast 24 Hours

End-User Response Time

End-user response time is a measure of page performance from the end-user's perspective, including all page load time from the client browser through the web server.

Slowest Pages

Configure Web CachesAnalyze

Select	URL	Samples	Average Response Time (sec)	Average Server Time (sec)	Response Time Details
<input checked="" type="radio"/>	/estore/control/commitorder	2	5.2	4.0	
<input type="radio"/>	/estore/control/verifysignin	3	2.6	1.4	
<input type="radio"/>	Product Category	4	1.6	0.3	
<input type="radio"/>	/estore/	5	1.4	0.0	
<input type="radio"/>	/estore/control/placeorder	3	1.3	0.0	

■ Average Server Time (sec) ■ Average Response Time (sec)

Watch List

The Watch List measures the end-user response time of critical pages as identified by the Web Application administrator. Click the "Manage Watch List" button to add or remove pages to this list.

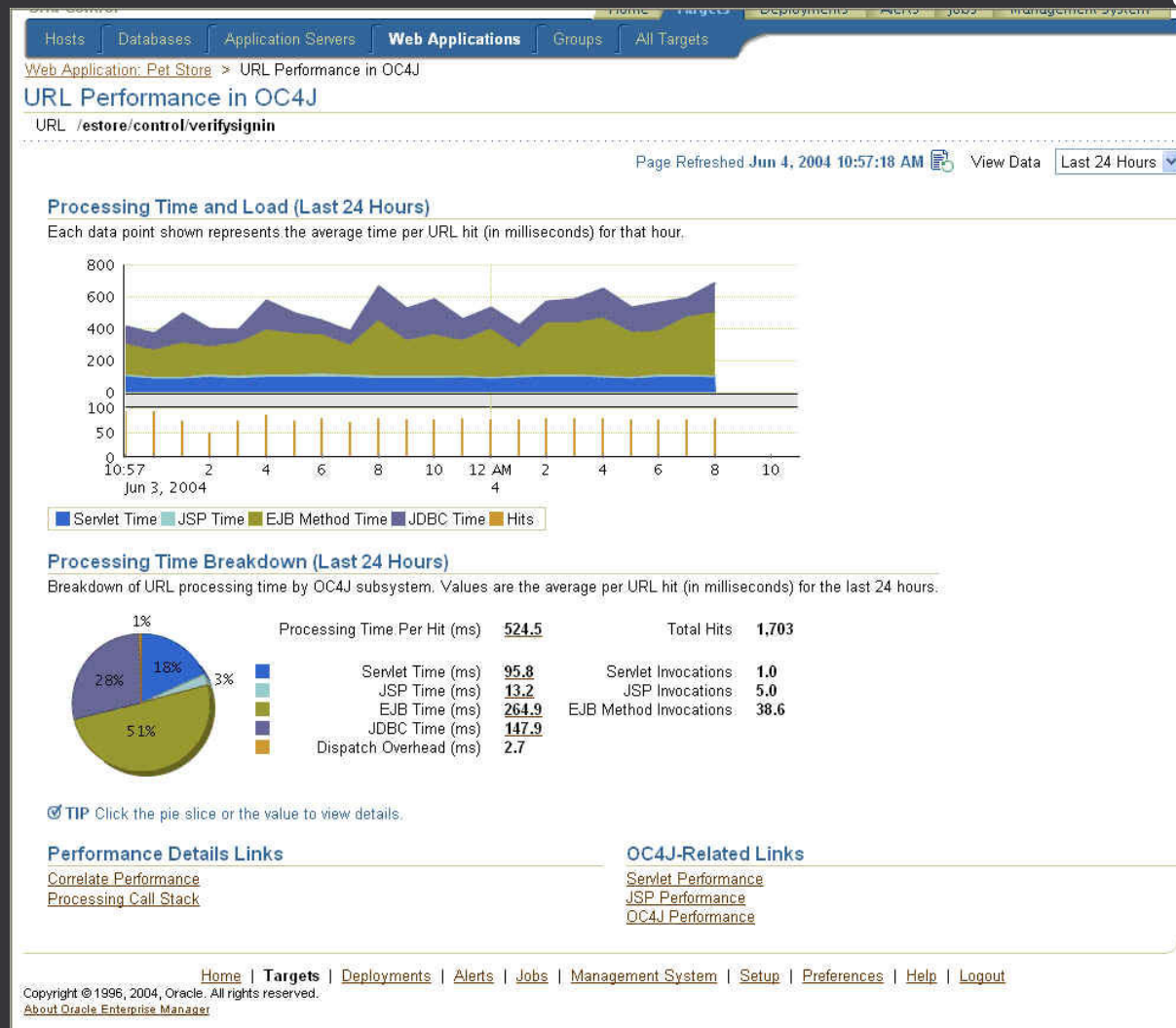
Manage Watch ListAnalyze

Select	URL	Samples	Average Response Time (sec)	Average Server Time (sec)	Response Time Details
<input checked="" type="radio"/>	Product Category	4	1.6	0.3	
<input type="radio"/>	Product List	10	1.2	0.7	
<input type="radio"/>	Product Details	136	0.9	0.8	
<input type="radio"/>	Shopping Cart	148	0.1	0.0	

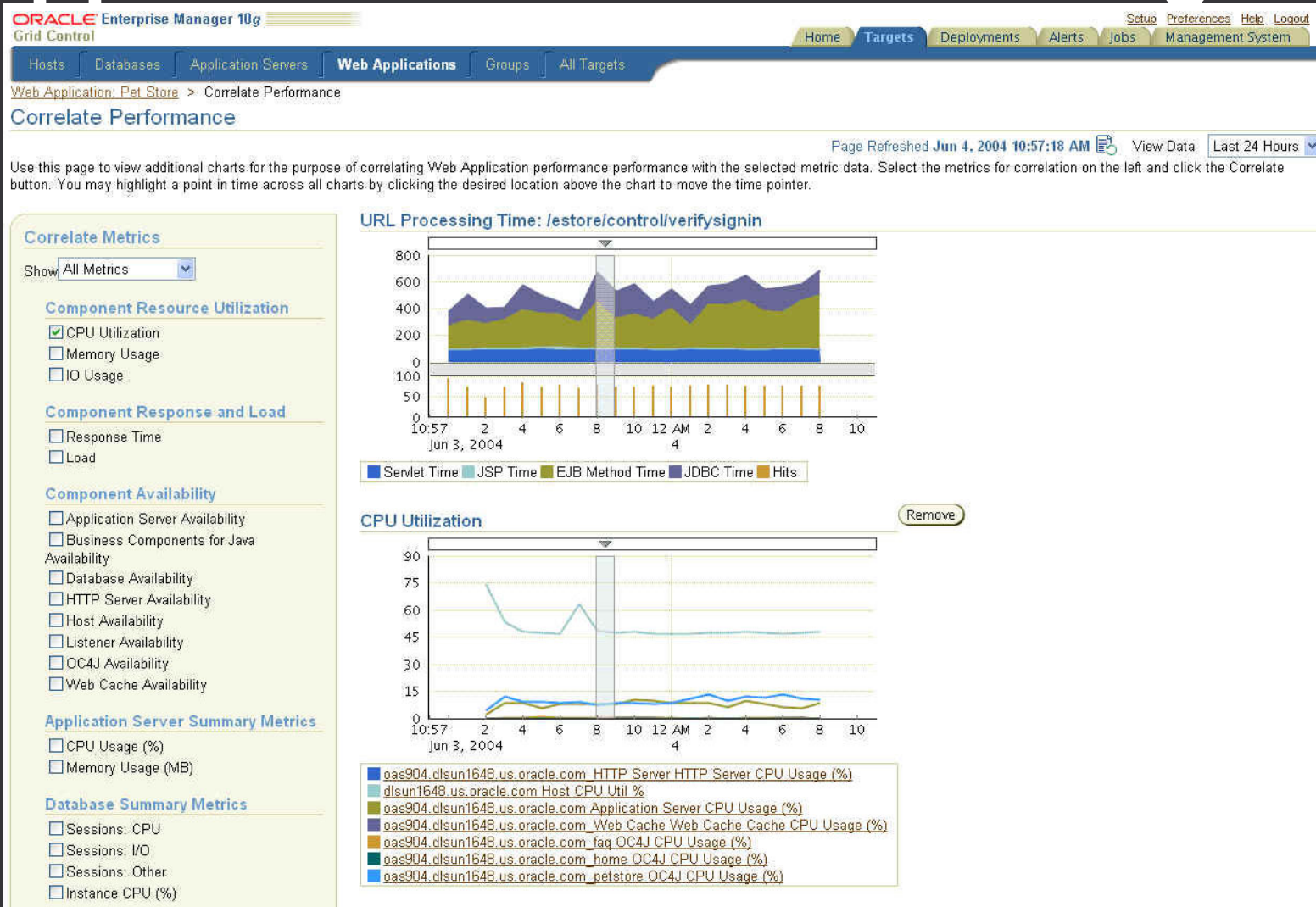
Detail Views

[Slowest Pages \(All\)](#)
[Slowest Domains](#)
[Slowest Regions](#)
[Slowest Visitors \(IP\)](#)
[Slowest Webservers](#)

Application Service Level Mgmt



Application Service Level Mgmt



Application Server Management Features:

Application Server System Management

Application Server Management Features: Application Server System Management

- Application Server Home Page
- Component Management
- Deploying and Maintaining J2EE Applications
- J2EE Application Diagnostics
- Backup and Recovery
- Port Management
- Changing Infrastructure Services
- Accessing Diagnostic Logs

Application Server Home Page

Single starting point for all Application Server management

- Consolidated, at-a-glance view of Application Server information
- Single point for monitoring all components
 - Availability
 - Resource usage
 - Alerts
 - Diagnostics
- Drilldowns to administer all components
 - Start, stop, or restart services
 - Modify server configurations
 - Deploy and monitor J2EE applications
 - Manage ports

Application Server Home Page

ORACLE Enterprise Manager 10g
Grid Control

HomeTargetsDeploymentsAlertsJobsManagement System

HostsDatabasesApplication ServersWeb ApplicationsGroupsAll TargetsSLBNetApp Filers


Host: stacb08.us.oracle.com > Application Server: pw1012.stacb08.us.oracle.com

Application Server: pw1012.stacb08.us.oracle.com

Page Refreshed Dec 5, 2004 10:12:26 AM

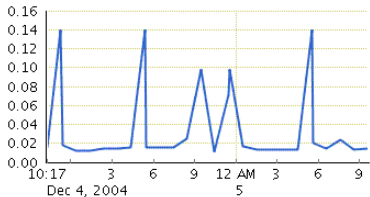
HomeJ2EE ApplicationsWeb ApplicationsPerformance

General



Status **Up**
Availability (%) **99**
(Last 24 Hours)
Application URL <http://stacb08.us.oracle.com:7779>
Version **10.1.2.0.0**
Installation Type **Portal and Wireless**
Oracle Home [/u01/oracle/pw1012](#)
Host [stacb08.us.oracle.com](#)

Application URL Response (seconds)



Components

Name	Current Status
home	↑
OC4J Portal	↑
HTTP Server	↑
Portal:portal	↑
Web Cache	↑

Alerts

Metric	Severity	Alert Triggered	Last Value	Last Checked
No Alerts found.				

Host Alerts

Metric	Severity	Alert Triggered	Last Value	Last Checked
No Alerts found.				

Related Links

Patch	Change Application URL	Administer
All Metrics	Manage Metrics	Alert History
Blackouts	Monitoring Configuration	

HomeJ2EE ApplicationsWeb ApplicationsPerformance

HomeTargetsDeploymentsAlertsJobsManagement SystemSetupPreferencesHelpLogout

Copyright © 1996, 2004, Oracle. All rights reserved.
[About Oracle Enterprise Manager](#)

Component Management

Lower learning curve with consistent, unified management across all components

- Support for management of all components:
 - HTTP Server
 - OC4J
 - Web Cache
 - Portal
 - Wireless
 - Business Intelligence
 - Integration
- Consistency across all components
 - Common look-and-feel
 - Consistent level of management
 - Administration
 - Monitoring

Deploying & Maintaining J2EE Apps

Deploy and manage apps without needing to be a J2EE expert

- Intuitive deployment Wizard
- Consolidated view of deployed J2EE applications
 - Per OC4J instance
 - Across all OC4J instances
- Un-deploy or re-deploy an application
- Configure Java Messaging Services for J2EE applications
- Configure and monitor Message Driven Beans

Deploying & Maintaining J2EE Apps



Deploy Application: Resource Reference Mappings

The table below lists all resource references found in your application. Resource references need to be associated with the JNDI names of physical entities on the system where the selected instance/cluster is running.

Resource Reference	Type	Referenced By	Authentication	JNDI Location
No resource reference mapping found in this application				

Data Sources for CMP Entity Beans

Your application includes CMP entity beans. CMP entity beans require a Data Source be associated with them to deal with persistence. If the table associated with this entity bean does not exist, OC4J will create one on deployment.

Entity Bean	EJB Module	Data Source
FAQ		<input type="text"/>
Topic		<input type="text"/>
Area		<input type="text"/>

[Cancel](#) [Back](#) [Step 2 of 4](#) [Next](#) [Finish](#)

J2EE Application Diagnostics

Quickly diagnose application performance problems

- Flexible “top” diagnostic reports
 - Top Applications
 - Top Servlets
 - Top EJBs
- Based on real-time or historical data

J2EE Application Diagnostics

ORACLE Enterprise Manager 10g
Grid Control

[Home](#) [Targets](#) [Deployments](#) [Alerts](#) [Jobs](#) [Management System](#)

[Hosts](#) [Databases](#) [Application Servers](#) [Web Applications](#) [Groups](#) [All Targets](#)

Host: [dlsun1648.us.oracle.com](#) > [Application Server: oas904.dlsun1648.us.oracle.com](#) > Top Servlets

View Data

Top Servlets

Data Retrieved Jun 5, 2004 4:07:58 PM

View

Name	OC4J Instance	Application	Web Module	Average Processing Time (seconds)	Requests Processed	Total Processing Time (seconds)
Spy	faq	default	dms	0.01	131,237	1,520.99
jsp	petstore	Petstore	petstore	0.05	60,407	2,771.96
Spy	home	default	dms	0.01	39,970	406.23
webTierEntryPoint	petstore	Petstore	petstore	0.11	18,909	2,111.22
jsp	faq	FAQApp	FAQAppWeb	0.02	4,334	65.67
Spy	petstore	default	dms	0.04	2,659	118.65
EMDServlet	home	BC4J	webapp	0.57	787	451.91

[Home](#) | [Targets](#) | [Deployments](#) | [Alerts](#) | [Jobs](#) | [Management System](#) | [Setup](#) | [Preferences](#) | [Help](#) | [Logout](#)

Copyright © 1996, 2004, Oracle. All rights reserved.
[About Oracle Enterprise Manager](#)

Backup & Recovery

Automate and simplify Application Server backup and recovery

- Configure backup & recovery settings
- Supported install types
 - J2EE & Web Cache
 - Portal & Wireless
 - Oracle Content Management SDK
 - Infrastructure
 - Identity Management
 - Metadata Repository (via wizard in Database Control Console)
- Online or cold, full or incremental backups available for all supported install types
- Restore to any backup available for all supported install types

Backup & Recovery

ORACLE® Enterprise Manager 10g
Application Server Control

[Logs](#) [Topology](#) [Preferences](#) [Help](#)

Application Server: [oracle.usunnbh23.us.oracle.com](#) >

Perform Backup

[Cancel](#) [OK](#)

Install Type **Infrastructure** Configuration Files Backup Location **/oracle/bkup1/conf1**
Log File Location **/oracle/bkup1/log1** Metadata Repository Database Backup Location **/oracle/bkup1/db**

Select the backup mode you would like to perform for this Application Server installation

- ☒ **Full Online Backup**
Performs a complete backup of instance configuration files and Metadata Repository database datafiles, control files and archived redo logs. Does not stop the middle-tier instance and assumes that the database is open.
- ☐ **Incremental Online Backup**
Performs an incremental backup of instance configuration files and Metadata repository database datafiles, control files and archived redo logs. Does not stop the middle-tier instance and assumes that the database is open. Only files that have changed since the last full or incremental backup are backed up.
- ☐ **Full Cold Backup**
Performs a complete backup of instance configuration files and Metadata repository database datafiles, control files and archived redo logs. Stops the middle-tier instance and shuts down and mounts the database.
- ☐ **Incremental Cold Backup**
Performs an incremental backup of instance configuration files and Metadata repository database datafiles, control files and archived redo logs. Stops the middle-tier instance and shuts down and mounts the database. Only files that have changed since the last full or incremental backup are backed up.

[Cancel](#) [OK](#)

[Logs](#) | [Topology](#) | [Preferences](#) | [Help](#)

Copyright © 1996, 2004, Oracle. All rights reserved.
[About Oracle Enterprise Manager 10g Application Server Control](#)

ORACLE®

Port Management

Centralize and simplify administration of ports

- View port ranges and ports in use across all components
- Configure ports from central location
 - Access port dependency info via online help and documentation

Port Management

ORACLE Enterprise Manager 10g
 Application Server Control














[Logs](#)
[Topology](#)
[Preferences](#)
[Help](#)

Farm >
 Application Server:pw1012.stacb08.us.oracle.com

[Home](#)
[J2EE Applications](#)
[Ports](#)
[Infrastructure](#)

Page Refreshed Dec 5, 2004 8:09:29 AM

The Port In Use column is empty if the port is not defined or if the component is not running. The Configure column contains an icon if you can configure the port using Enterprise Manager. Otherwise, you must refer to the component documentation. Regardless of how you modify the ports, you must consider any port dependencies before modifying a port value. More information:[About Oracle Application Server Port Dependencies](#)

Component ^	Type	Port In Use	Suggested Port Range	Configure
DCM Object Cache	Cache Discovery Port		7100-7199	
home	JMS	3703	3701-3800	
home	RMI	3202	3201-3300	
home	AJP	3303	3301-3400	
Log Loader	Management	44001	44000-44099	
OC4J_Portal	JMS	3702	3701-3800	
OC4J_Portal	RMI	3203	3201-3300	
OC4J_Portal	AJP	3302	3301-3400	
OPMN	ONS Request	6004	6003-6099	
OPMN	ONS Local	6101	6100-6199	
OPMN	ONS Remote	6201	6200-6299	
Oracle Enterprise Manager 10g	Application Server Control	1811	1810-1829	
Oracle Enterprise Manager 10g	Oracle Management Agent	1832	1830-1849	
Oracle Enterprise Manager 10g	Application Server Control RMI	1851	1850-1869	
Oracle HTTP Server	Diagnostic	7201	7200-7299	
Oracle HTTP Server	Listen	7779	80,7777-7877	
Oracle HTTP Server	Listen (SSL)		443,4443-4543	
Web Cache	HTTP Listen	7778	7777-7877	
Web Cache	Administration	4000	4000-4300	
Web Cache	Invalidation	4001	4000-4300	
Web Cache	Statistics	4002	4000-4300	

[Home](#)
[J2EE Applications](#)
[Ports](#)
[Infrastructure](#)

[Logs](#)
[Topology](#)
[Preferences](#)
[Help](#)

Copyright © 1996, 2004, Oracle. All rights reserved.
 About Oracle Enterprise Manager 10g Application Server Control

Changing Infrastructure Services

Simplify configuration of Infrastructure services

- Reconfiguration of infrastructure services
 - Identity Management
 - Supports changing of OID, SSO, or both
 - Metadata Repository
 - Change performed at DB instance level
 - Farm Repository
- Intuitive wizards to guide user through change

Changing Infrastructure Services

ORACLE® Enterprise Manager 10g
Application Server Control

[Logs](#) [Topology](#) [Preferences](#) [Help](#)



[Cancel](#) [Step 1 of 3](#) [Next](#)

Change Identity Management: Internet Directory

Oracle Application Server Instance **pw1012.stacb08.us.oracle.com**

Current Internet Directory Host **stacb08.us.oracle.com**

Current Internet Directory Port **3060**

Specify the connect information for the new Internet Directory to be used for Identity Management of Oracle Application Server users and groups. If you do not have Internet Directory installed, install it using the OracleAS Infrastructure component.

* Host

* Port

☐ Use only SSL connections with Internet Directory

By default, some middle tier components connect to Internet Directory using non-SSL connections. Select this option to restrict all Internet Directory connections to be SSL connections.

[Cancel](#) [Step 1 of 3](#) [Next](#)

[Logs](#) | [Topology](#) | [Preferences](#) | [Help](#)

Copyright © 1996, 2004, Oracle. All rights reserved.

[About Oracle Enterprise Manager 10g Application Server Control](#)

ORACLE®

Accessing Diagnostic Logs

Diagnose problems more quickly with centralized log file access

- Log Viewer
 - Access all application server log files from single location
- Log Loader
 - Automatically load log file data into repository for easier investigation
 - Enables cross-correlation queries

Accessing Diagnostic Logs

[Log Files](#) [Search Log Repository](#)

The Log Files tab lists the log files for this application server. View a log file by clicking on the Log File name in the search results table.

Simple Search

Available Components

ADF Business Components
ASCLONE
DCM
EmployeeServicesApp
Enterprise Manager
HTTP_Server
LogLoader
OPMN
Port Tunneling
Universal Installer

>

 Move

>>

 Move All

<

 Remove

<<

 Remove All

Selected Components

FAQApp

Search

Advanced Search

Results: 8 Log Entries Retrieved

Component Type ▲	Component Name	Log Type	Log File	Modified	Size (bytes)	OC4J Island	OC4J Island Process
OC4J Application	FAQApp	Application transtrace	application.log	December 1, 2004 2:54:50 PM PST	1722	default_island	1
OC4J Application	FAQApp	Application default	global-application.log	December 1, 2004 1:13:00 PM PST	4735	default_island	1
OC4J Application	FAQApp	Application FAQApp	application.log	December 1, 2004 1:09:06 PM PST	21446	default_island	1
OC4J JMS Server	FAQApp	Server	jms.log	December 1, 2004 1:08:07 PM PST	1094	default_island	1
OC4J RMI Server	FAQApp	Server	rmi.log	December 1, 2004 1:08:07 PM PST	2188	default_island	1
OC4J Server	FAQApp	Server	server.log	December 1, 2004 1:08:18 PM PST	20063	default_island	1
OC4J Server	FAQApp	Server	redirected_output/errors	December 2, 2004 7:54:05 AM PST	7394	default_island	1
OC4J Web Site	FAQApp	Access	default-web-access.log	December 5, 2004 8:11:05 AM PST	20124439	default_island	1

[Logs](#) | [Topology](#) | [Preferences](#) | [Help](#)

Copyright © 1996, 2004, Oracle. All rights reserved.
[About Oracle Enterprise Manager 10g Application Server Control](#)



QUESTIONS & ANSWERS

ORACLE®

ORACLE®