

Oracle Enterprise Manager Grid Control

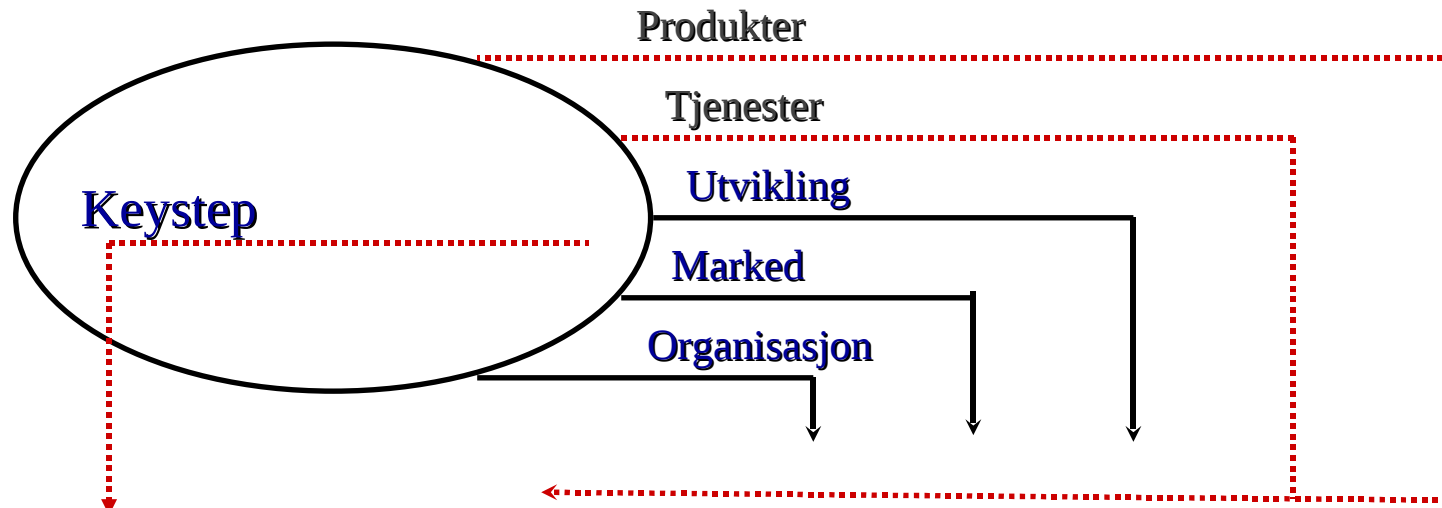
Ingemar Jansson Haverstad

keystep

Nøkkelen til sikker og effektiv IT-forvaltning
Ta steget

Produkter og tjenester...

<http://www.keystep.no>



80% av vår omsetning
Skal være tjenester

Tjenester og produkter - pakkepriser:

Søker å ha spisskompetanse på utvalgte områder

- Fjernadministrasjon av foretningskritiske løsninger (database og OS, primært Oracle og SQL Server)
- Support og beredskap
- Overvåkning
- Helsesjekk og tuning
- Driftsrelaterte produkter fra partnere (Nimbus for overvåking, etc.)
- Konsulenttjenester

Bakgrunn

- Gartner:

"Customers spend IT \$s :
20% on acquiring and 80% operational costs"

- SUN:

"Companies spend 70 to 80 percent of their IT budgets on operating and maintaining their data centers, leaving only 20 to 30 percent for business innovation".

Funksjonalitet

- Service avtaler (SLA)
- Standarder (policy)
- Administrasjon
- Automatisk distribusjon av programpakker, etc.
- Informasjonskilde
- Status for alle maskiner og systemer (Grid)
- Overvåking av all kilder
- Varnings ved feilsituasjoner (alerts)

OEM Pakker

- Database pakker
 - Tuning Pack
 - Diagnostics Pack
 - Configuration Pack
 - Change Management Pack
- Applikasjonsserver pakker
 - Diagnostics Pack
 - Configuration Pack
- Standalone pakker
 - Service Level Management Pack
 - Configuration packs for non-Oracle systems
 - Provisioning pack

OEM Plugins

Ikke Oracle baser

- Ikke Oracle mellomvare (middleware)
- Nettverksenheter
- Lagringssystemer

- F5 BipIP Local Traffic Manager
- Juniper NetScreen Firewall
- Checkpoint Firewall
- IBM DB2
- EMC Celerra
- NetApp Filer
- Microsoft Active Directory
- BEA WebLogic Server
- IBM WebSphere Application Server
- IBM WebSphere MQ
- JBoss Application Server

- Microsoft SQL Server
- Microsoft Internet Information Services
- Microsoft BizTalk Server
- Microsoft Commerce Server
- Microsoft .NET Framework
- Microsoft Internet and Security Acceleration Server

Prisliste / Pakke - NOK

- Database pakker
 - Tuning Pack
 - Diagnostics Pack
 - Configuration Pack
 - Change Management Pack

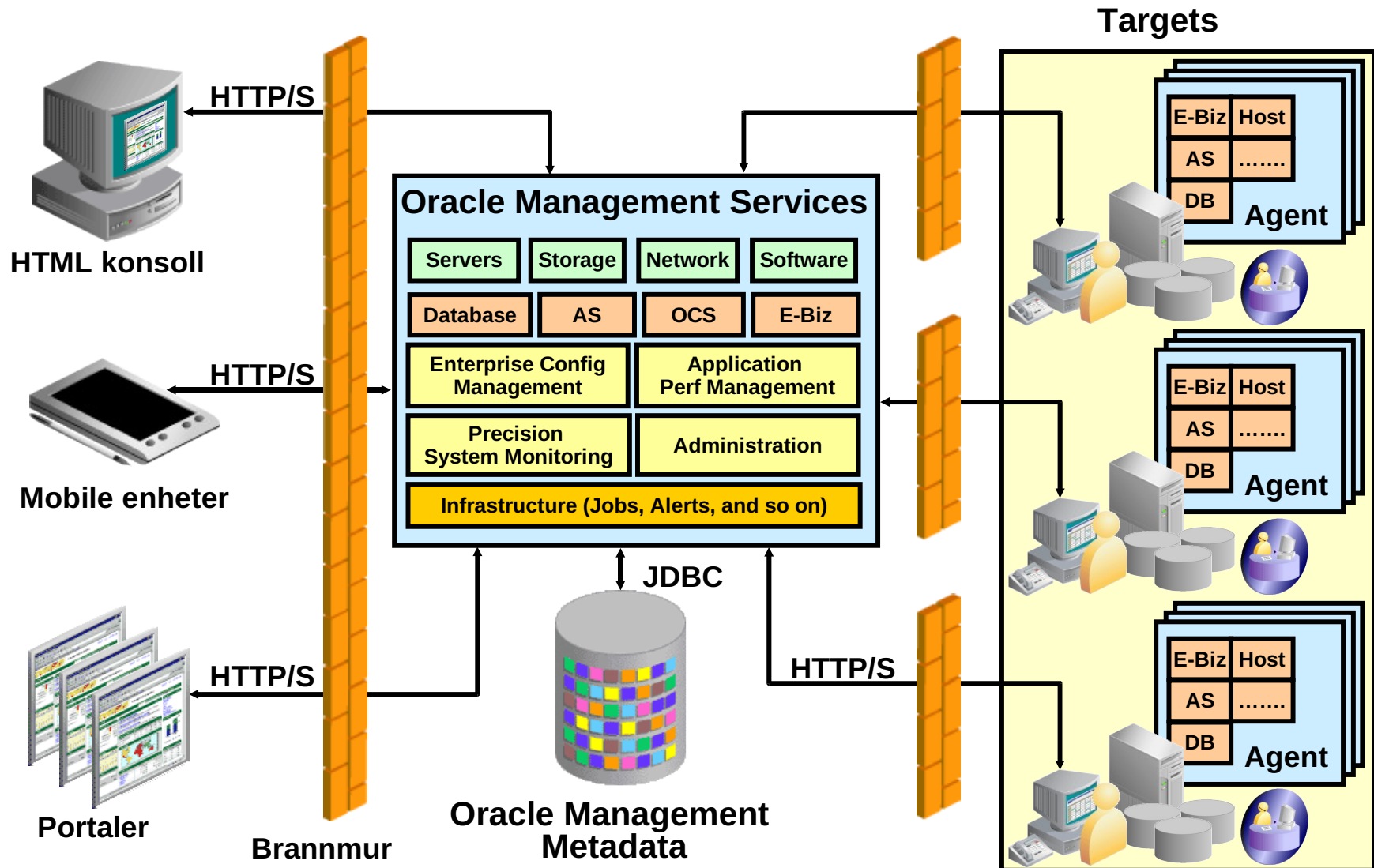
Bruker: 386.-

Support / bruker: 85.-

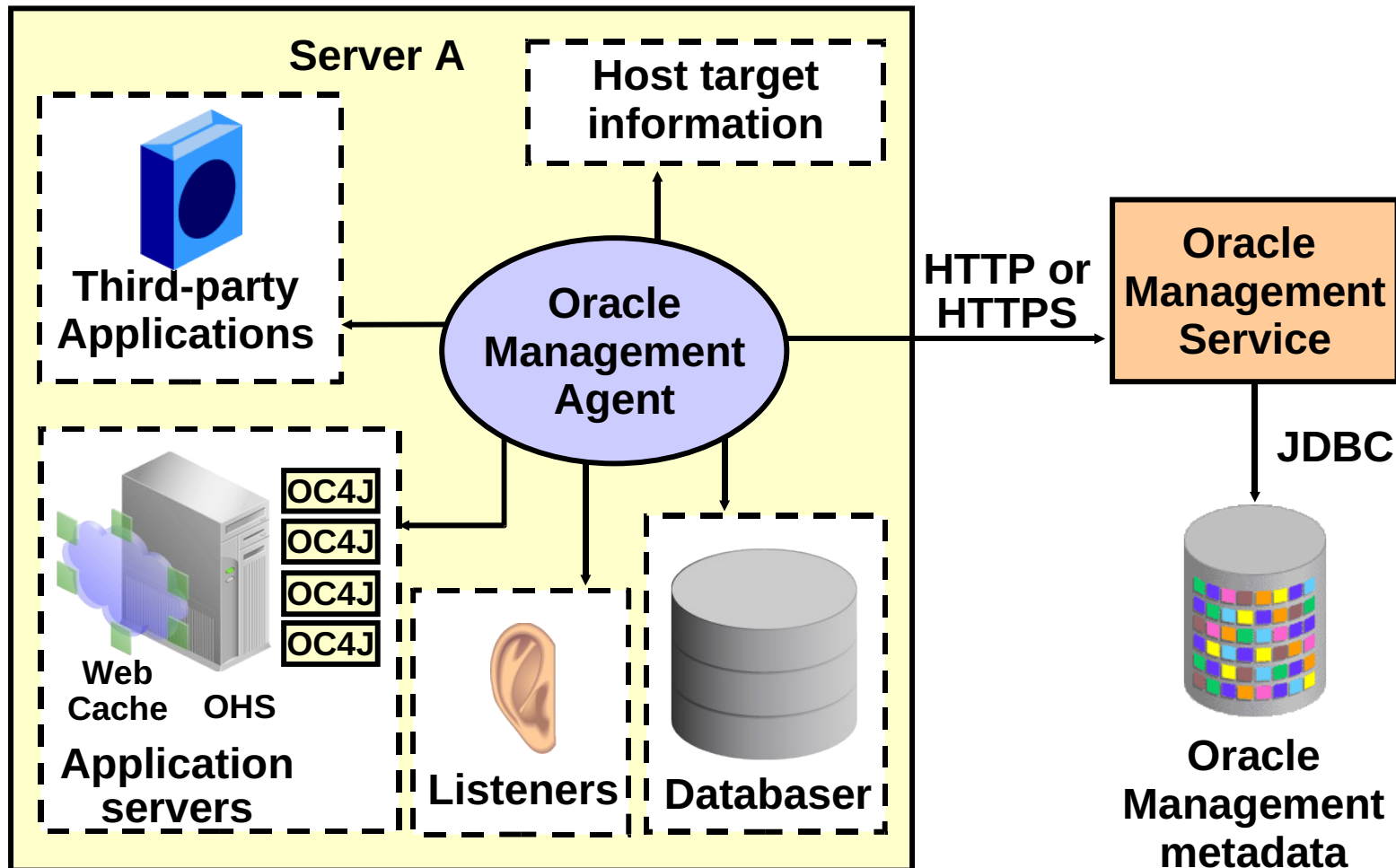
CPU: 19 311.-

Support / CPU: 4 250.-

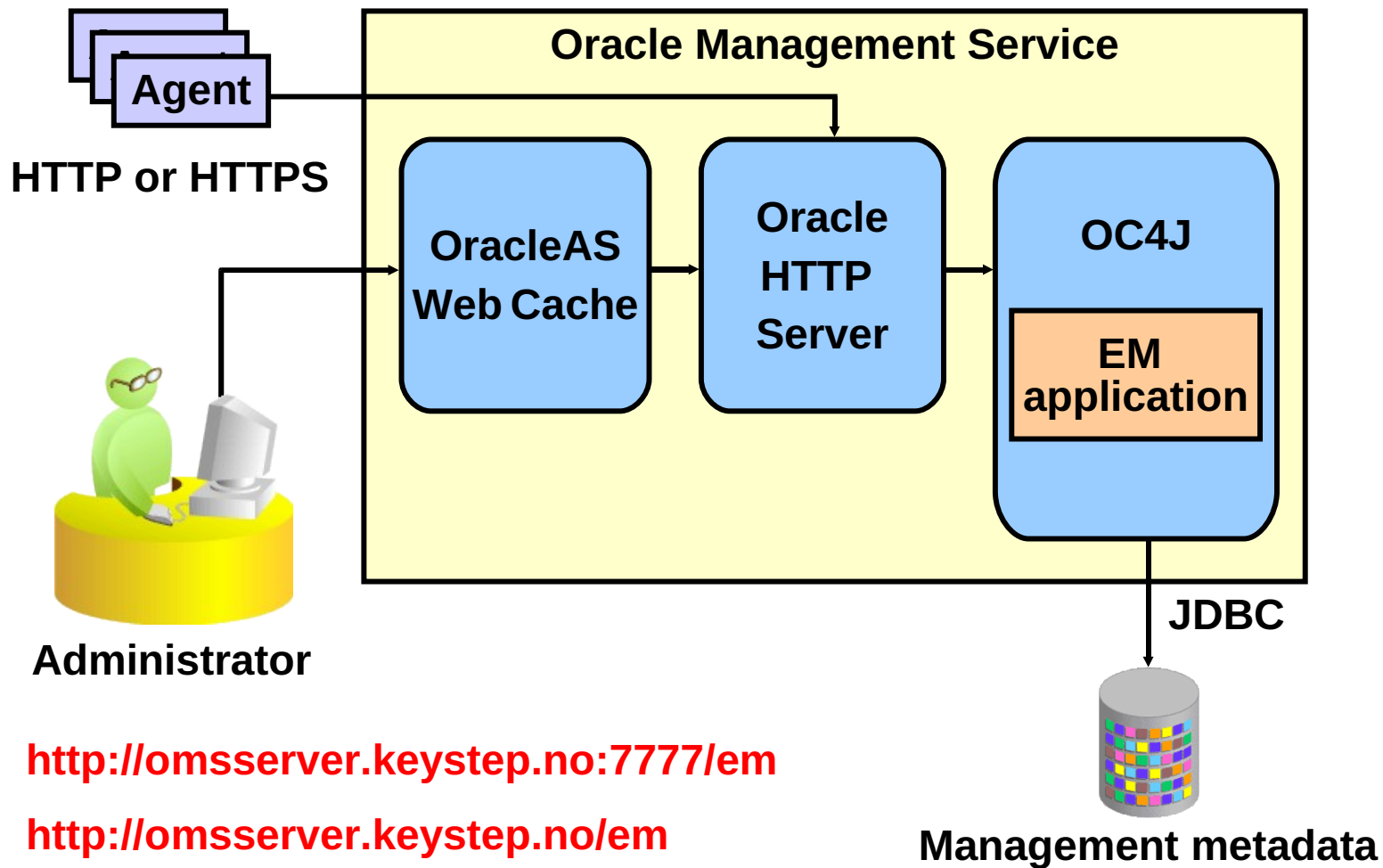
Grid Control komponenter



Oracle Management agent



Oracle Management Service



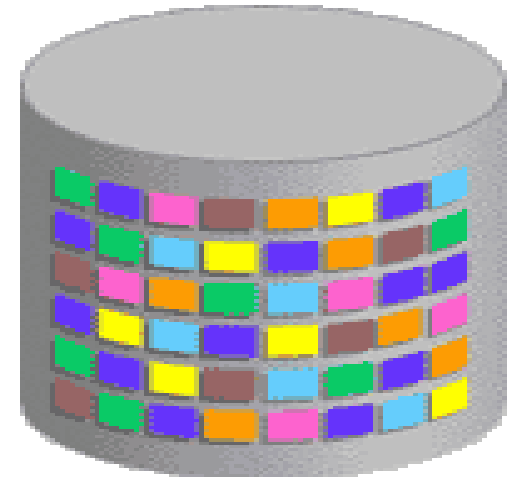
<http://omsserver.keystep.no:7777/em>

<http://omsserver.keystep.no/em>

Management metadata

Oracle Management metadata

- Dedikert database
- Kan bruke eksisterende database
- Skjema SYSMAN
- Kan bruke Real Application Database (RAC)



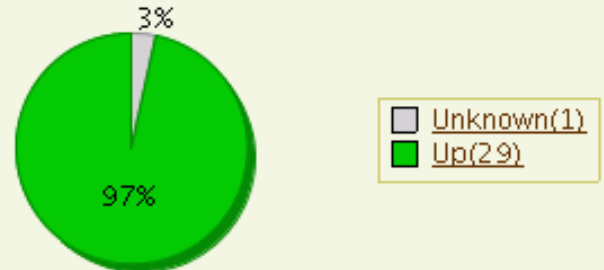
Grid Control Console: Home

View ▾

Overview

Total Monitored Targets **31**

All Targets Status



All Targets Alerts

Critical **0**
Warning **23**
Errors **2**

All Targets Policy Violations

Critical **80**
Warning **80**
Informational **3**

All Targets Jobs

Problem Executions (last 7 days) **6**
Suspended Executions (last 7 days) **0**

Target Search

Search

Security Policy Violations

Critical **80**
Warning **80**
Informational **3**
New in Last 24 Hours **2**

Critical Patch Advisories for Oracle Homes

Patch Advisories **0**

! Patch Advisory information may be stale.
Oracle MetaLink credentials are not configured.

Affected Oracle Homes **0**

Oracle MetaLink Credentials **Not Configured**

Deployments Summary

View ▾

Database Installations ▲	Targets	Installations	Interim Patches Applied
Oracle Database 10g 10.1.0.4.0	1	1	No
Oracle Database 10g 10.2.0.1.0	2	1	No
Oracle9i 9.2.0.4.0	1	1	No

Grid Control Console: Targets

ORACLE Enterprise Manager 10g  [Setup](#) [Preferences](#) [Help](#)

Grid Control [Home](#) **[Targets](#)** [Deployments](#) [Alerts](#) [Policies](#) [Jobs](#) [Re](#)














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

Hosts

Page Refreshed 18-Jan-2006 3:25:39 PM EST 

Search [Advanced Search](#)

|

Select	Name 	Status	Alerts	Policy Violations	Compliance Score (%)	CPU Util %	Mem Util %	Total IO/sec
<input checked="" type="radio"/>	edidr5p0.us.oracle.com		0 2	5 3 0	70	11.03 	82.16 	6.4
<input type="radio"/>	edixr1p1.us.oracle.com		0 1	5 3 0	70	5.06 	97.94 	7.03
<input type="radio"/>	edrsr8p1.us.oracle.com		0 3	5 3 0	70	4.11 	97.67 	6.82
<input type="radio"/>	stclinux01.us.oracle.com		1 11	5 3 0	70	3.53 	98.59 	13

 **TIP** For an explanation of the icons and symbols used in this page, see the [Icon Key](#).

Related Links

[Customize Table Columns](#)

[Execute Host Command](#)

Grid Control: Deployments

ORACLE Enterprise Manager 10g

Grid Control

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Targets

Deployments

Alerts

Setup Preferences Help Logout

Policies

Jobs

Reports

General | Provisioning

Deployments

Critical Patch Advisories for Oracle Homes

Patch Advisories **0**


 Patch Advisory information may be stale.
Oracle MetaLink credentials are not configured.

Affected Oracle Homes **0**

Oracle MetaLink Credentials [Not Configured](#)

Deployments Summary

View 

Database Installations 	Targets	Installations	Interim Patches Applied
Oracle Database 10g 10.1.0.4.0	1	1	No
Oracle Database 10g 10.2.0.1.0	2	1	No
Oracle9i 9.2.0.4.0	1	1	No

Overview

Enterprise Manager maintains detailed information about hosts and their operating systems, as well as software installations. The Deployments Summary table provides a high level view of this information, as well as allowing you to explore the details by selecting the individual components. This information is also available on the Configuration page for a host. Using the Deployments tools, you can:

- Perform searches on the detailed information.
- Compare the detailed information of hosts and databases.
- Search Oracle MetaLink for patches, and subsequently manage their deployment.
- Clone a database or Oracle home to an alternative location.
- Manage the configuration collection process.

Configuration

[Search](#)

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[Compare to Multiple Configurations\(Job\)](#)

[View Saved Configurations](#)

[Import Configuration](#)

[Host Configuration Collection Problems](#)

[Refresh Host Configuration](#)

[Configuration History](#)

Patching

[Patch Oracle Software](#)

[View Patch Cache](#)

[Patch Linux Hosts](#)

Agent Installation

[Install Agent](#)

[Agent Installation Status](#)

Grid Control Console: Alerts

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Targets Down | Critical | Warning | Errors | Blacked Out | Unknown Availability

Targets Down

Your managed targets listed below are unavailable.

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Search

Target	Type	Down Since	Message
No Targets found..			

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Grid Control Console: Policies

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Grid Control

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Settings Preferences Help Logout

Violations | Associations | Library | Security At a Glance | Errors


Policy Violations

The following table displays a rollup of policy violations. For detail information click on the violation count link.

Page Refreshed 25-Nov-2005 10:52:09 PM EST

Simple Search

Target Type Most Recent Violation within Days

Target Name 






Category

Severity

Ignore suppressed violations

[Advanced Search](#)

Previous 1-25 of 40 Next 15

Severity	Violation Count	Policy Rule	Target	Type	Most Recent Violation	Category	Compliance Score (%)	Non-Compliant Since
	5	Default Passwords	edrsr8p1_orcl.oracle.com	Database Instance	25-Nov-2005 10:59:35 AM PST	Security	76	22-Nov-2005 11:00:58 AM PST
	5	Default Passwords	cloned	Database Instance	25-Nov-2005 10:47:45 AM PST	Security	76	22-Nov-2005 9:28:06 AM PST
	3	Excessive Public Execute Privileges	edrsr8p1_orcl.oracle.com	Database Instance	22-Nov-2005 11:00:58 AM PST	Security	26	22-Nov-2005 11:00:58 AM PST
	2	Password Grace Time	edrsr8p1_orcl.oracle.com	Database Instance	22-Nov-2005 11:00:58 AM PST	Security	26	22-Nov-2005 11:00:58 AM PST
	1	Execute Privileges on UTL_FILE To PUBLIC	edrsr8p1_orcl.oracle.com	Database Instance	22-Nov-2005 11:00:58 AM PST	Security	42	22-Nov-2005 11:00:58 AM PST

Grid Control Console: Jobs

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Job Activity | Job Library

Job Activity

Page Refreshed 24-Nov-2005 4:38:45 PM EST

Status Name [Advanced Search](#)

View

| Create Job

Select	Name	Status (Executions)	Scheduled	Targets	Target Type	Owner	Job Type
<input checked="" type="radio"/>	BACKUP_CLONED_000023	1 Running	24-Nov-2005 4:38:37 PM (UTC-05:00)	cloned	Database Instance	SYSMAN	Database Backup

Home | Targets | Deployments | Alerts | Policies | **Jobs** | Reports | Setup | Preferences | Help | Logout

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Deployments

Alerts

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Jobs

Reports

Report Definitions

Page Refreshed 25-Nov-2005 10:51:34 PM EST

Search

Title Target Type

Owner Target Name

Go

|

[Expand All](#) | [Collapse All](#)

Select	Title	Description	Date Generated	Owner
<input type="radio"/>	▼ Reports			
<input type="radio"/>	▼ Deployment and Configuration			
<input type="radio"/>	▼ Application Server Configuration			
<input checked="" type="radio"/>	Application Server Clusters Configuration	Displays configuration information for all Application Server Clusters.		SYSMAN
<input type="radio"/>	Application Server Targets Configuration	Displays configuration information for all Application Servers.		SYSMAN
<input type="radio"/>	Oracle HTTP/HTTPS Traffic	Displays detailed information about Oracle HTTP/HTTPS Traffic.		SYSMAN
<input type="radio"/>	▼ Client Configurations			
<input type="radio"/>	Client Compliance Summary	Displays compliance summary across all clients.		SYSMAN
<input type="radio"/>	Client Configurations Summary	Displays configuration summary across all clients.		SYSMAN
<input type="radio"/>	▼ Hardware			
<input type="radio"/>	Hardware Summary	Displays hardware summary across all hosts.		SYSMAN
<input type="radio"/>	Hardware Summary (Group)	Displays hardware summary across all hosts within a group.		SYSMAN

Grid Control Console: Setup

ORACLE Enterprise Manager 10g

Grid Control

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Enterprise Manager Configuration | Management Services and Repository | Agents

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ins](#)

[Client System
Analyzer in Grid
Control](#)

Overview of Setup

Setup allows you to access general Enterprise Manager configuration and system monitoring functions. Depending on the system and target privileges that have been granted, you can access setup functions for the following administrative area(s):

Enterprise Manager Configuration: lets you perform administrative operations such as adding new Administrators, managing Monitoring Templates, and establishing Blackouts. Your administrator privileges determine which configuration operations are displayed. See [Introduction to Setting Up Enterprise Manager](#) for more information.

Management Services and Repository: lets you monitor system performance and access diagnostic information for the Oracle Management Services and Management Repository. You can view:

- The overall health of Enterprise Manager.
- The status and performance of the Repository DBMS Jobs that handle Enterprise Manager's maintenance and monitoring functionality.
- The health and configuration of all Management Services.
- Performance errors for the DBMS jobs and Management Service components (Repository Metrics).

See [Monitoring The Management System](#) for more information.

Agents: lets you view general configuration, status, and performance information of the Oracle Management Agents that have been installed and configured for managed hosts. See [About Oracle Management Agents](#) for more information.

Only Super Administrators can access Setup functions for all administrative areas.

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[Preferred
Credentials](#)

[Notification](#)

[Rules](#)

[Schedule](#)

[Target Subtabs](#)

General

[Revert](#)

[Apply](#)

Password

Changing the SYSMAN user password requires a special operation which is described in the Oracle Enterprise Manager Advanced Configuration documentation.

E-mail Addresses

These addresses are used to send notifications to you. You can specify multiple addresses if you want to be notified in different ways, and the format to use for each address. Later on, you will need to define a Notification Schedule before any e-mail notifications can be sent to you.

Select E-mail Address	Message Format
No e-mail addresses specified	
Add Another Row	

TIP Refer to on-line help for message format sample.

[Revert](#)

[Apply](#)

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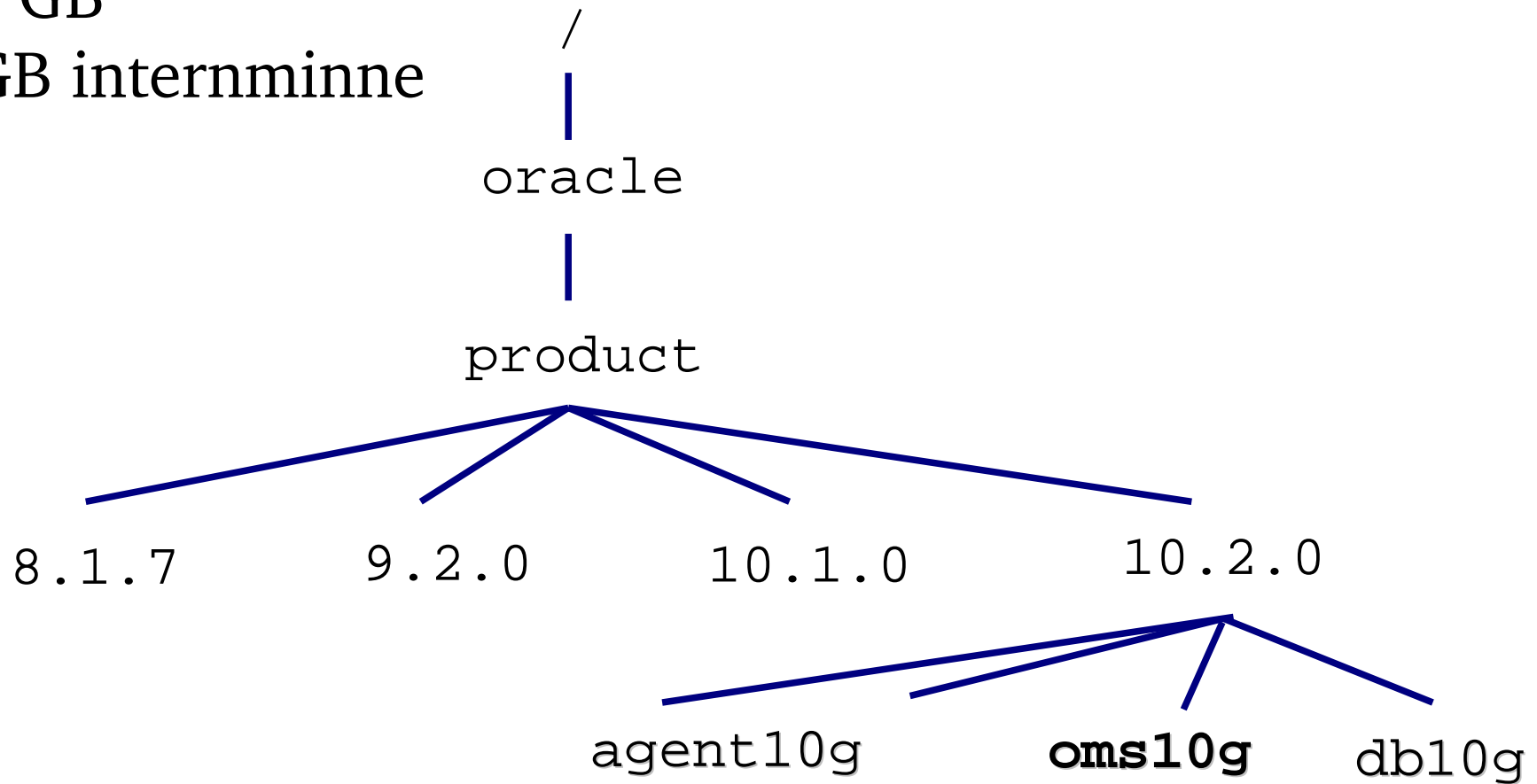
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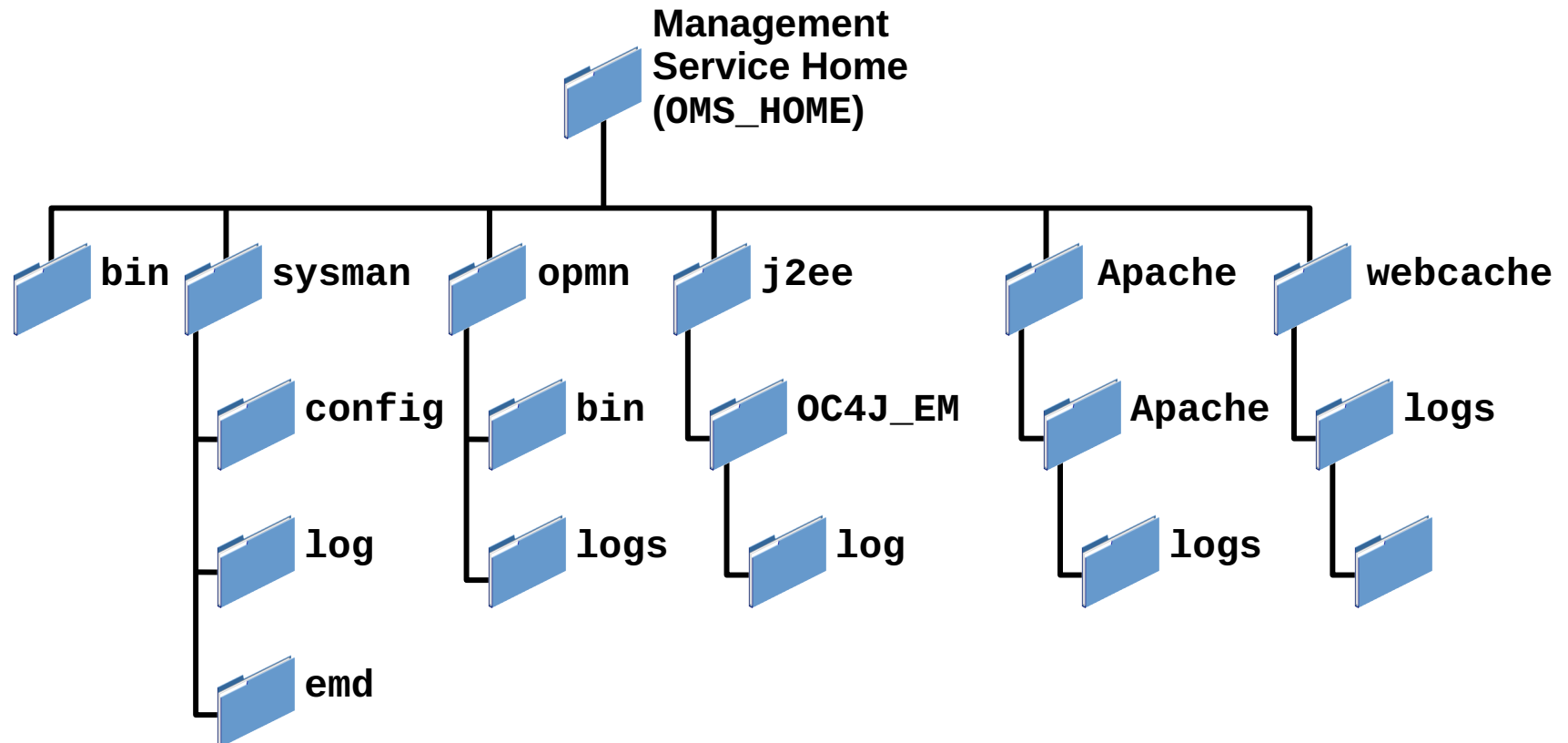
[About Oracle Enterprise Manager](#) 

Oracle programvare

- 20-30.000 filer
- 2-4 GB
- 2 GB internminne



Oracle Management Service - Layout



Krav til plattform

Minne (RAM) og disk plass krav:

Deployment Size	Oracle Management Service	Oracle Management Repository
Liten (100 targets)	2 GB RAM	2 GB RAM *
	2 GB disk	10 GB disk
Middels (1,000 targets)	2 GB RAM	4 GB RAM
	# of OMS x 5 GB disk	30 GB disk
Stor (10,000 targets)	2 GB RAM	6 GB RAM
	# of OMS x 10 GB disk	100 GB disk

Operativ system for OMS 10.2.0.3 ²⁴

Platform

- Linux x86
- Linux x64 (AMD64/EM64T)
- Solaris SPARC (64-BIT)
- Windows x86
- HP-UX PA-RISC (64-BIT)
- HP-UX Itanium
- AIX 5L (64-BIT)

Database versjoner (targets) for 10.2.0.3 agenter

- 8.1.7.4
- 9.0.1.5 (*)
- 9.2.0.6 ++
- 10.1.0.4 ++
- 10.2.0.1 ++
- RAC
 - 9.2.0.6 ++
 - 10.1.0.4 ++
 - 10.2.0.1 ++

Installasjon

Oracle Enterprise Manager Grid Control 10gR2 Installation

Specify Installation Type

Enterprise Manager 10g Grid Control Using a New Database

Installs everything you need to run Enterprise Manager: a Management Service, a Management Repository, and a Management Agent. An Oracle database containing the Management Repository is also installed.

Enterprise Manager 10g Grid Control Using an Existing Database

Includes everything you need to run Enterprise Manager: a Management Service, a Management Repository, and a Management Agent. You must specify an existing database to house the repository.

Additional Management Service

A Management Service and a Management Agent are installed.

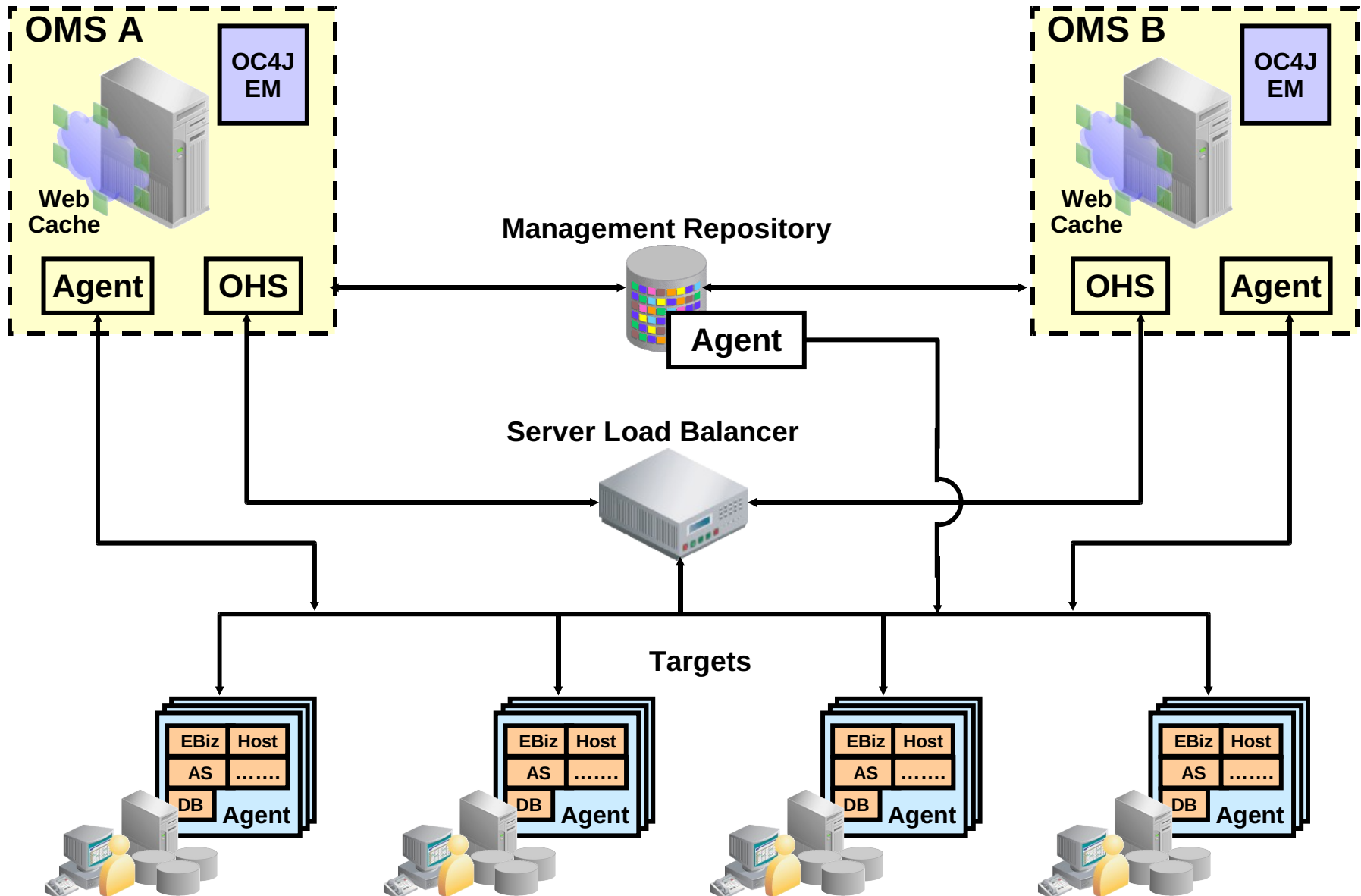
Additional Management Agent

If there is an existing Management Service in the network, chose this option to install a Management Agent on the system running the software and hardware modules you want to manage.

Help Installed Products Back Next Install Cancel

ORACLE

Større installasjon...



Installasjon av agenten

1) Agent Deploy application

- NFS-mounted agent installation
- agentDownload script
- Cluster Agent installation
- Management Agent cloning
- Interactive installation using OUI
- Silent installation

Tilpassinger av objekter (targets)

ORACLE Enterprise Manager 10g
Grid Control

Home **Targets** Deployments Alerts Policies Jobs Reports

Hosts | **Databases** | Application Servers | Web Applications | Services | Systems | Groups | All Targets | Collaboration Suites

Cancel Step 1 of 5 Next

● Properties ○ Install Packages ○ Credentials ○ Parameters ○ Review

Configure Database Instance: Properties

Name **edrsr8p1_orcl.oracle.com**
Type **Database Instance**

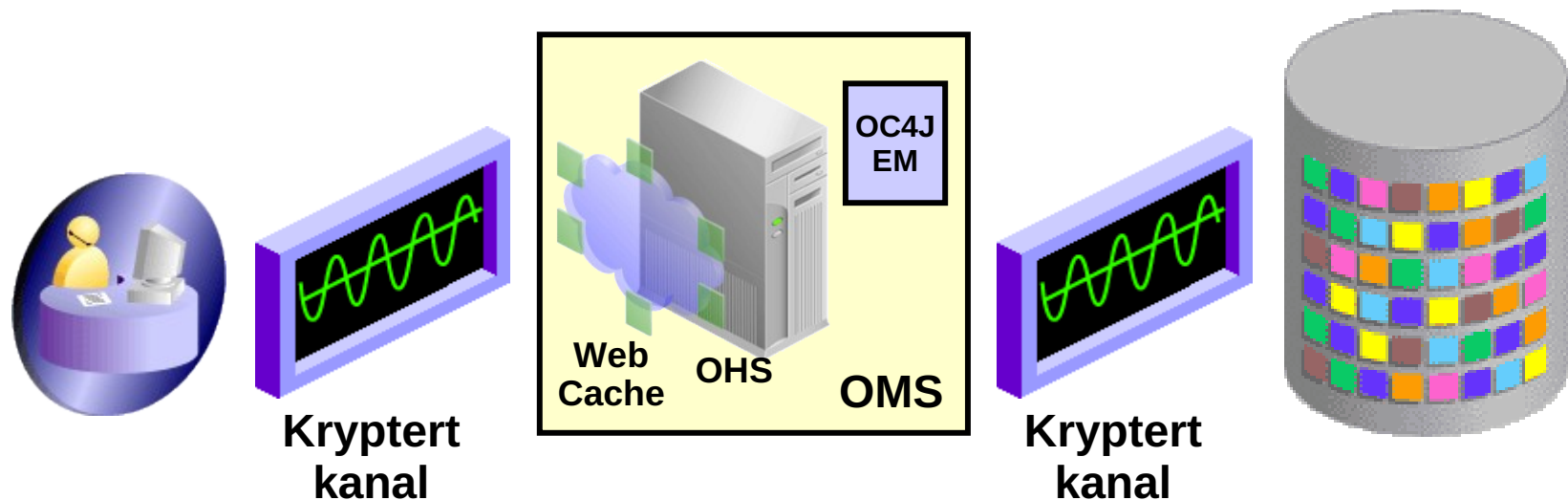
Test Connection

Name	Value
Oracle home path	/u01/app/oracle/product/10.2.0/db_1
Monitor Username	db snmp
Monitor Password	••••••
Role	Normal
Listener Machine Name	edrsr8p1.us.oracle.com
Port	1521
Database SID	orcl

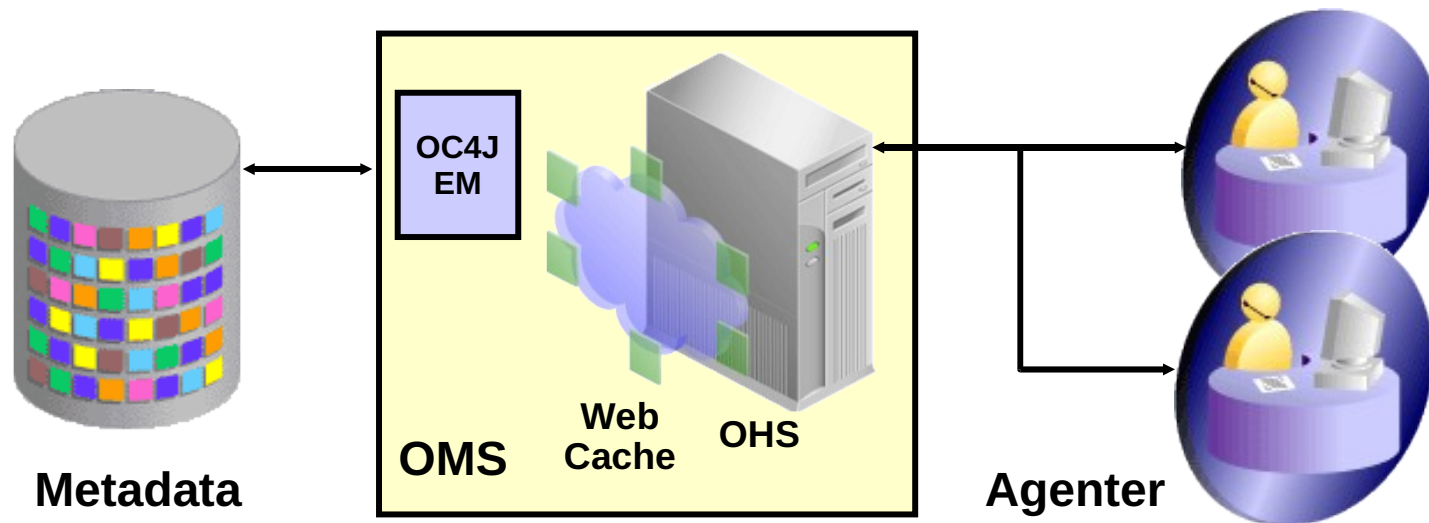
Cancel Step 1 of 5 Next

Sikkerhet i Grid Control

- Agent <-> OMS
- OMS <-> Metadata database



Administrasjon av Grid Control



Component Control Utilities		
Repository	OMS	Agent
sqlplus	opmnctl	emctl
	emctl	
lsnrctl	AS Control	

Rettigheter i Grid Control

Administrator

- Super Administrator
- Administrator

- View
- Operator
- Full



Roller

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Properties Roles System Privileges Targets Target Privileges Administrators More

Create Role: Properties

Cancel Step 1 of 7 **Next** Review

Name *

Description

Cancel Step 1 of 7 **Next** Review

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...og Administrator

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Administrators

Administrators are database users defined in the Management Repository who can login to Enterprise Manager to perform management tasks. The breadth of management tasks available in Enterprise Manager depends on the privileges and roles assigned to the administrators.

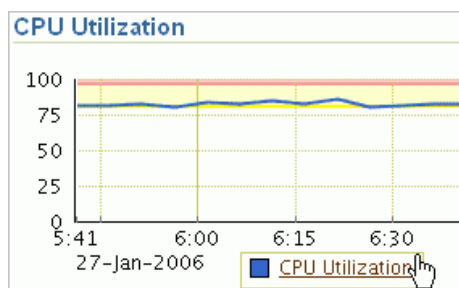
Page Refreshed **13-Dec-2005 12:46:14 PM EST** [Refresh](#)

Search [Go](#)

[Create Like](#) [View](#) [Edit](#) [Subscribe to Rules](#) [Delete](#) | [Create](#)

Select	Name	Access
<input checked="" type="radio"/>	DEMO1	Administrator
<input type="radio"/>	SYS	Super Administrator
<input type="radio"/>	SYSMAN	Repository Owner
<input type="radio"/>	SYSTEM	Super Administrator
<input type="radio"/>	USER1	Administrator

Overvåking



Finn frem til kritiske situasjoner...

CPU Utilization (%): Last 24 hours

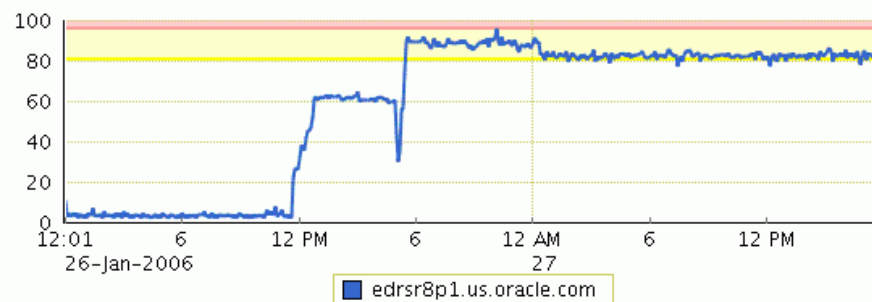
Last Updated 27-Jan-2006 5:56:24 PM EST

View Data Last 24 hours

Statistics

Last Known Value **80.58**
 Average Value **84.35**
 High Value **96.2**
 Low Value **77.61**
 ■ Warning Threshold **80**
 ■ Critical Threshold **95**
 Occurrences Before Alert **6**
 Corrective Action **None**

Metric Value



Alert History

Comment for Most Recent Alert

Add Comment

Severity	Timestamp	Message	Last Comment	Details
⚠	26-Jan-2006 5:56:24 PM	CPU Utilization is 89.72%, crossed warning (80) or critical (95) threshold.		-
✓	23-Dec-2005 2:06:01 PM	CPU Utilization is 9.5%, fallen below warning (80) and critical (95) thresholds.		-

Tilrettelegging (metrics)

All Metrics

Collected From Target **Mar 9, 2006 9:57:28 PM PST** 

[Expand All](#) | [Collapse All](#)

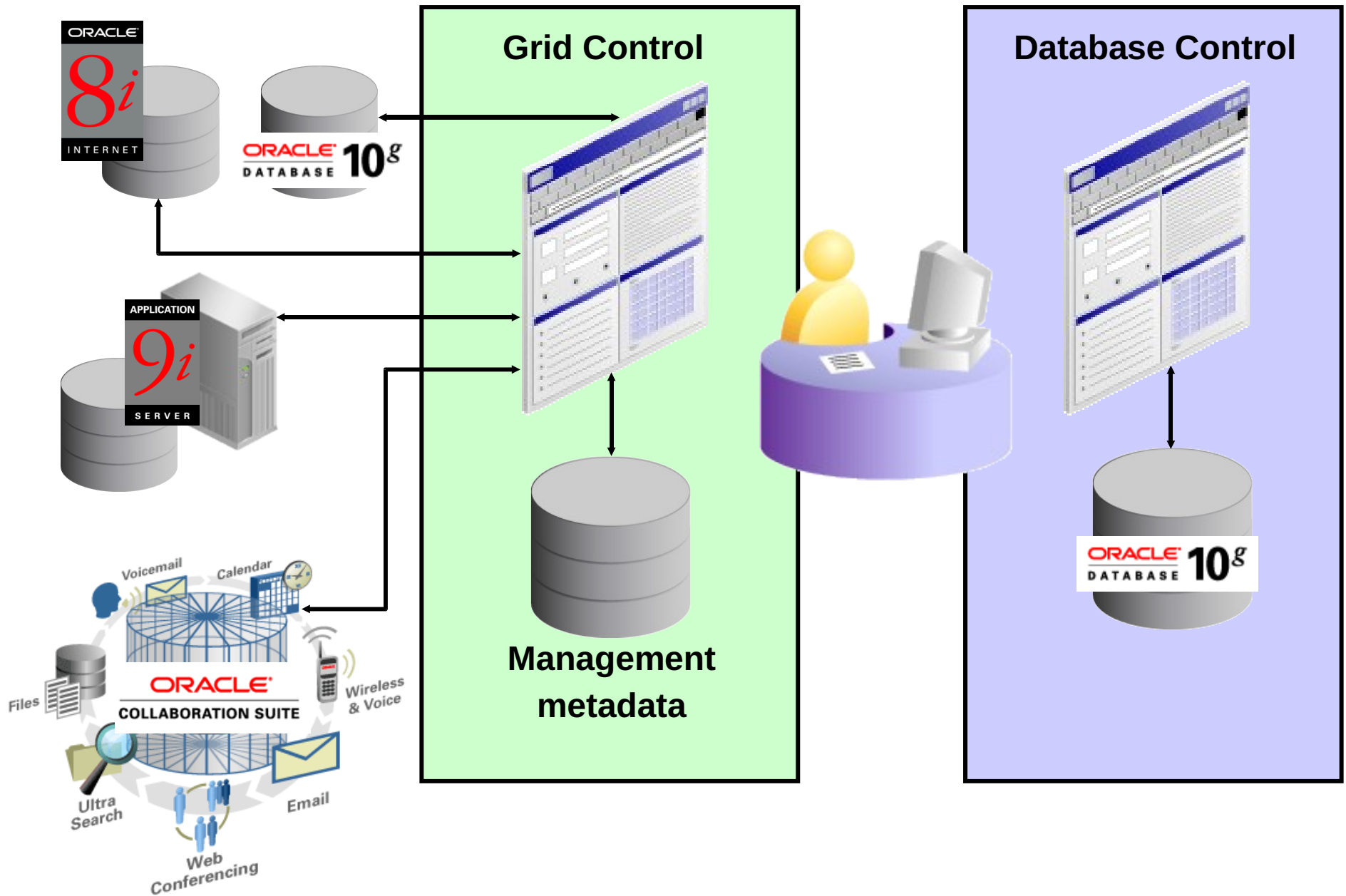
Metrics	Thresholds	Collection Schedule	Upload Interval	Last Upload
▼ edrsr8p1.us.oracle.com				
▶ Buffer Activity	None	Real-time Only	n/a	n/a
▶ CPU Usage	None	Every 15 Minutes	On Alert	-
▶ Disk Activity	Some	Every 15 Minutes	Every Collection	Mar 9, 2006 9:57:28 PM
▶ File and Directory Monitoring	Some	Every 15 Minutes	Every Collection	Mar 9, 2006 9:53:28 PM
▶ Filesystems	Some	Every 15 Minutes	Every 24 Collections	Mar 9, 2006 8:27:28 PM

Disk Activity

Page Refreshed **Mar 9, 2006 10:01:50 PM PST** 

Disk Device	Disk Device Busy (%)	Disk Reads (per second)	Disk Writes (per second)	Average Disk I/O Service Time (ms)	Disk Blocks Reads (per second)	Disk Block Writes (per second)
sda2	<u>0.000002</u>	<u>0</u>	<u>0</u>	<u>4.32</u>	<u>0</u>	<u>0</u>
sda5	<u>0.003</u>	<u>0</u>	<u>0</u>	<u>1100.33</u>	<u>0</u>	<u>0</u>
sda8	<u>0.001</u>	<u>0.0038</u>	<u>0</u>	<u>25.75</u>	<u>0.031</u>	<u>0</u>
sda6	<u>0.000002</u>	<u>0</u>	<u>0</u>	<u>6.5</u>	<u>0</u>	<u>0</u>
sda7	<u>0.33</u>	<u>8.53</u>	<u>286.59</u>	<u>0.045</u>	<u>77.44</u>	<u>4497.59</u>
sda3	<u>0.000005</u>	<u>0</u>	<u>0</u>	<u>8.65</u>	<u>0</u>	<u>0</u>
sda9	<u>0.000002</u>	<u>0</u>	<u>0</u>	<u>7.14</u>	<u>0</u>	<u>0</u>
sda4	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
sda	<u>0.33</u>	<u>8.53</u>	<u>286.59</u>	<u>0.046</u>	<u>77.47</u>	<u>4497.59</u>
sda1	<u>0.00004</u>	<u>0</u>	<u>0</u>	<u>1.4</u>	<u>0</u>	<u>0</u>

Grid Control / Database Control



Database Home

ORACLE Enterprise Manager 10g
Grid Control

Home **Targets** Deployments Alerts Policies Jobs Reports
Setup Preferences Help Logout

Hosts | **Databases** | Application Servers | Web Applications | Services | Systems | Groups | All Targets

Database Instance: EDRSR8P1_ORCL.oracle.com

Home Performance Administration Maintenance

Latest Data Collected From Target Feb 22, 2006 1:35:57 AM EST Refresh View Data Automatically (60 sec)

General

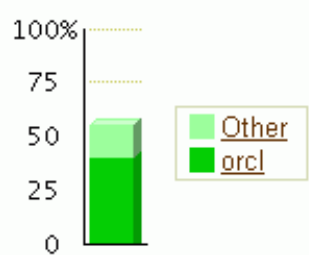
Shutdown Black Out



Status Up
Up Since **Jan 22, 2006 2:27:53 PM EST**
Instance Name **orcl**
Version **10.2.0.1.0**
Host edrsr8p1.us.oracle.com
Listener LISTENER_edrsr8p1.us.oracle...

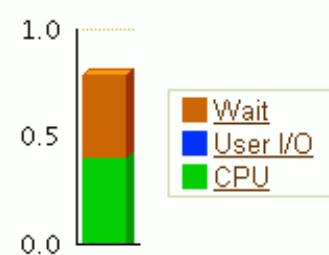
[View All Properties](#)

Host CPU



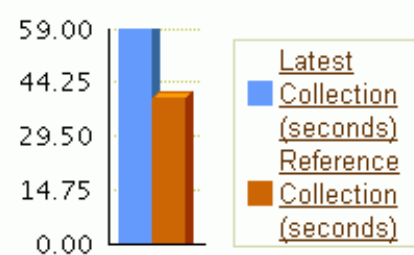
Load 2.19 Paging 0.00

Active Sessions



Maximum CPU **1**

SQL Response Time



SQL Response Time (%) 147.60

[Edit Reference Collection](#)

Diagnostic Summary

ADDM Findings 7
Period Start Time **Feb 22, 2006 12:00:15 AM**
Alert Log No ORA- errors

Space Summary

Database Size (GB) 1.855
Problem Tablespaces **0**
Segment Advisor Recommendations 0
Space Violations **0** ✓
Dump Area Used (%) 52

High Availability

Instance Recovery Time (sec) 18
Last Backup **n/a**
Usable Flash Recovery Area (%) 100
Flashback Logging Disabled

Alerts

Category All Go Critical **0** Warning **0**

Severity	Category	Name	Message	Alert Triggered
(No alerts)				

Veiledere

- ADDM
- Segment Advisor
- Undo Management
- Memory Advisor
- SQL Access Advisor
- SQL Tuning Advisor
- MTTR Advisor



ADDM

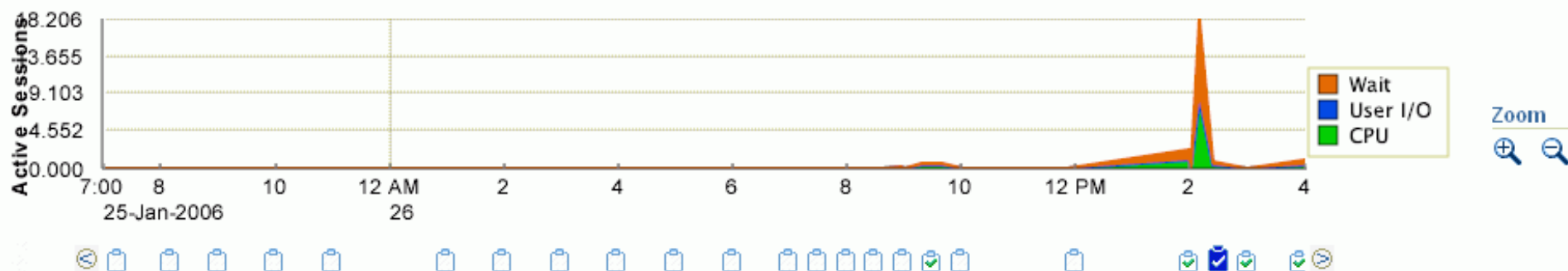
Automatic Database Diagnostic Monitor (ADDM)

Page Refreshed 26-Jan-2006 5:32:04 o'clock PM EST [Refresh](#)

Database Activity

[Run ADDM](#)

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



TIP For an explanation of the icons and symbols used in this page, see the [Icon Key](#)

Performance Analysis

Task Name **ADDM:1090770270_1_880**

Time Range **26-Jan-2006 2:15:00 PM to 26-Jan-2006 2:45:00 PM**

[View Snapshots](#) [View Report](#)

Database Time (minutes) **9.5**
Task Owner **SYS**

Period Start Time **26-Jan-2006 2:10:27 o'clock PM EST**
Average Active Sessions **0.7**

Period Duration (minutes) **13.1**

Impact (%) ▾	Finding	Recommendations
100	SQL statements consuming significant database time were found.	5 SQL Tuning
61.1	Time spent on the CPU by the instance was responsible for a substantial part of database time.	5 SQL Tuning
4.9	Waits on event "log file sync" while performing COMMIT and ROLLBACK operations were consuming significant database time.	1 Application Analysis 1 Host Configuration
4.8	PL/SQL execution consumed significant database time.	1 SQL Tuning
2.7	Read and write contention on database blocks was consuming significant database time. However, no single object was the predominant cause for this contention.	

SQL detaljer

SQL Details: 658qfxar410kx

Switch to SQL ID

View Data

Text

```
SELECT ORDER_ID FROM (SELECT ORDER_ID FROM ORDERS SAMPLE (.3) ORDER BY DBMS_RANDOM.VALUE) WHERE ROWNUM <2
```

Details

Select the plan hash value to see the details below. Plan Hash Value

[Statistics](#)

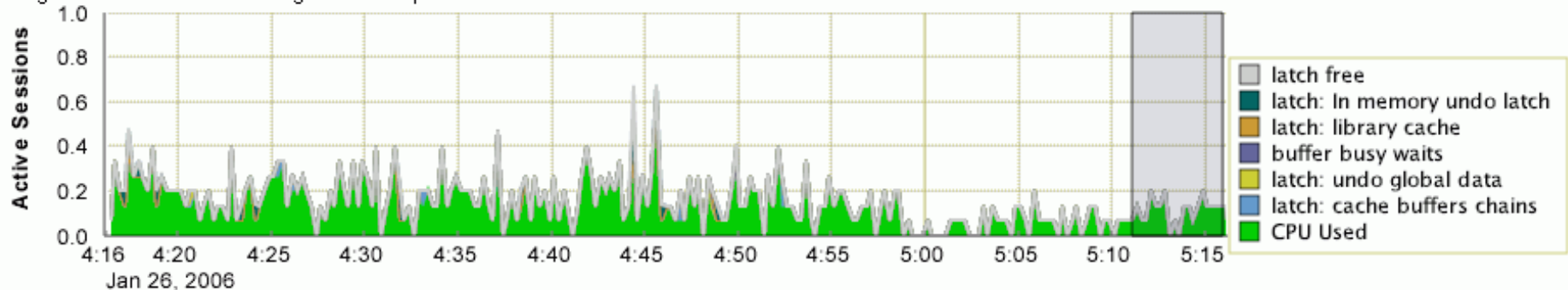
Activity

[Plan](#)

[Tuning Information](#)

Summary

Drag the shaded box to change the time period for the detail section below.



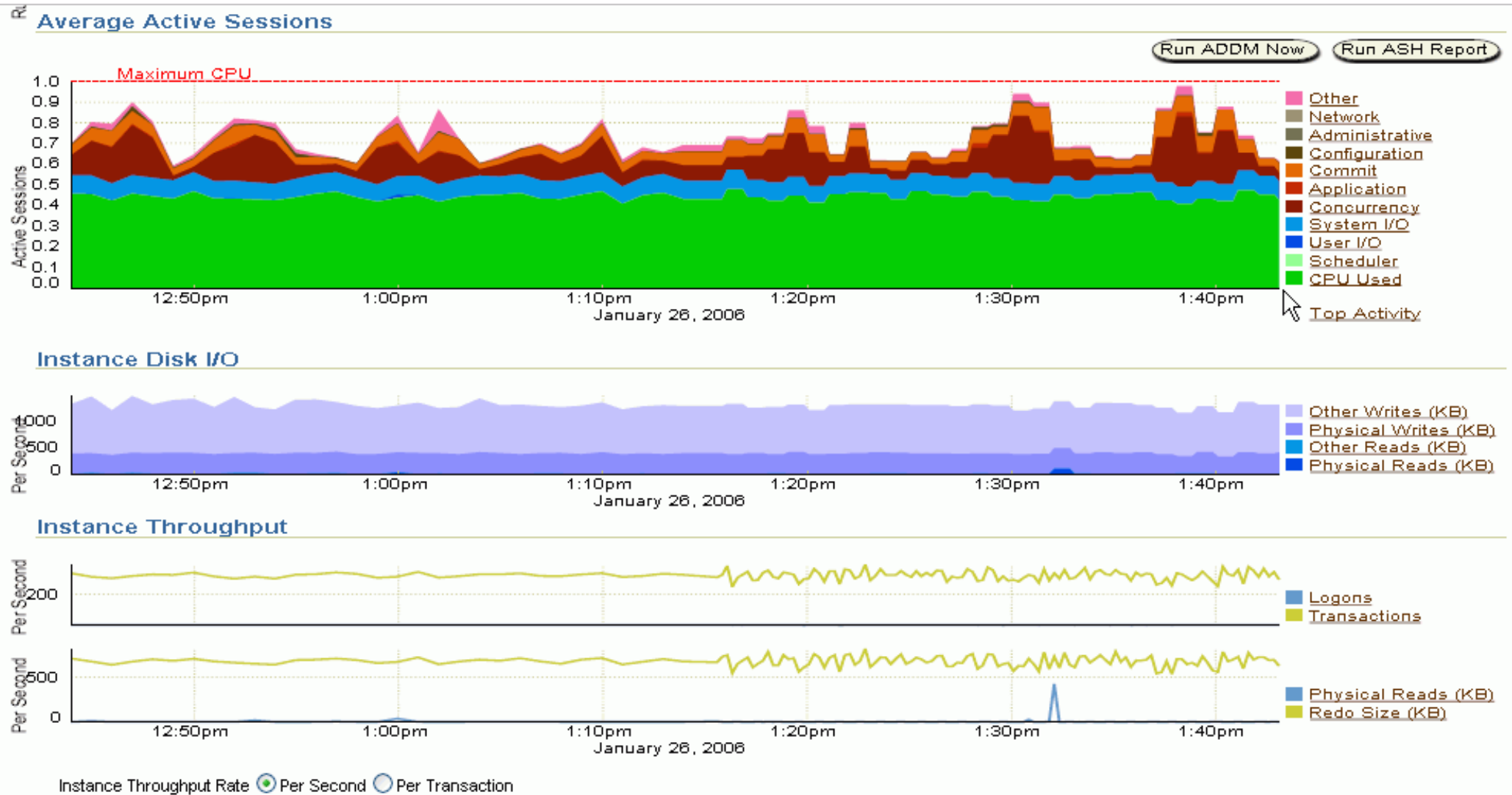
Detail for Selected 5 Minute Interval

Start Time 26-Jan-2006 5:11:05 PM

Previous 1-10 of 34 Next 10

Activity (%)	SID	User	Program	Service	Plan Hash Value
2.94	159	OE	sqlplus@edrsr8p1 (TNS V1-V3)	SYS\$USERS	284740769
2.94	141	OE	sqlplus@edrsr8p1 (TNS V1-V3)	SYS\$USERS	284740769
2.94	159	OE	sqlplus@edrsr8p1 (TNS V1-V3)	SYS\$USERS	284740769
2.94	159	OE	sqlplus@edrsr8p1 (TNS V1-V3)	SYS\$USERS	284740769
2.94	146	OE	sqlplus@edrsr8p1 (TNS V1-V3)	SYS\$USERS	284740769

Database ytelse

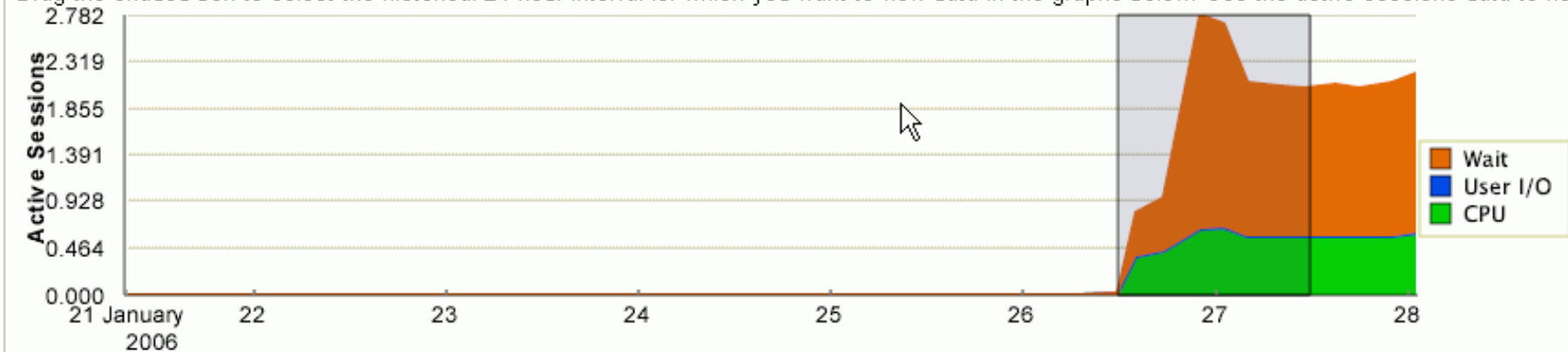


SQL historikk

Historical SQL (AWR)

Historical Interval Selection

Drag the shaded box to select the historical 24 hour interval for which you want to view data in the graphs below. Use the active sessions data to help with your selection.



Detail for Selected 24 Hour Interval

Start Time 26-Jan-2006 11:50:59 AM

[Schedule SQL Tuning Advisor](#) [Create SQL Tuning Set](#)

Previous 1-25 of 308 Next 25

Select All | Select None

Select	SQL ID	SQL Text	% of Total Elapsed Time ▾	CPU Time (seconds)	Wait Time (seconds)	Elapsed Time Per Execution (seconds)	Module
<input type="checkbox"/>	6zymbggqyn5hmn	DECLARE max_orders NUM	14.63	19834.34	43566.25	2.02	SQL*Plus
<input type="checkbox"/>	8g6ygfr4a4320	DECLARE max_orders NUM	11.42	15221.66	34295.29	1.66	SQL*Plus
<input type="checkbox"/>	b83t16ngq7vt9	INSERT INTO ORDER_ITEMS (ORDER	8.98	12288.38	26623.20	0.00	SQL*Plus
<input type="checkbox"/>	48a4r1xapjadj	SELECT PRODUCT_ID, LIST_PRICE,	4.04	6984.34	10523.73	0.00	SQL*Plus
<input type="checkbox"/>	2h9mn1fkmz6q2	DECLARE max_records NU	3.78	3796.55	12572.95	0.52	SQL*Plus
<input type="checkbox"/>	658qfxar410kx	SELECT ORDER_ID FROM (SELECT O	3.16	4382.36	9308.30	0.00	SQL*Plus

Active Session History (ASH) rapport

Report Results

[Save to File](#)

ASH Report For ORCL/orcl

DB Name	DB Id	Instance	Inst num	Release	RAC	Host
ORCL	1090770270	orcl	1	10.2.0.1.0	NO	edrsr8p1

CPUs	SGA Size	Buffer Cache	Shared Pool	ASH Buffer Size
1	272M (100%)	168M (61.8%)	71M (26.0%)	2.0M (0.7%)

	Sample Time	Data Source
Analysis Begin Time:	15-Feb-06 17:53:53	DBA_HIST_ACTIVE_SESS_HISTORY in AWR snapshot 1370
Analysis End Time:	22-Feb-06 17:58:53	DBA_HIST_ACTIVE_SESS_HISTORY in AWR snapshot 1535 + V\$ACTIVE_SESSION_HISTORY
Elapsed Time:	10,085.0 (mins)	
Sample Count:	55,220	
Average Active Sessions:	0.91	
Avg. Active Session per CPU:	0.91	
Report Target:	None specified	

ASH Report

- [Top Events](#)
- [Load Profile](#)
- [Top SQL](#)
- [Top Sessions](#)
- [Top Objects/Files/Latches](#)
- [Activity Over Time](#)

Applikasjonsserver ytelse

Application: Petstore

Page Refreshed Mar 9, 2006 3:43:15 AM EST

[Refresh](#)

[View Data](#)

Last 24 hours

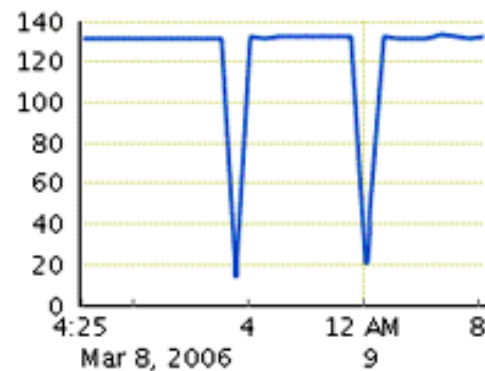
[Performance](#)

[Web Modules](#)

[EJB Modules](#)

Response : Servlets and JSPs

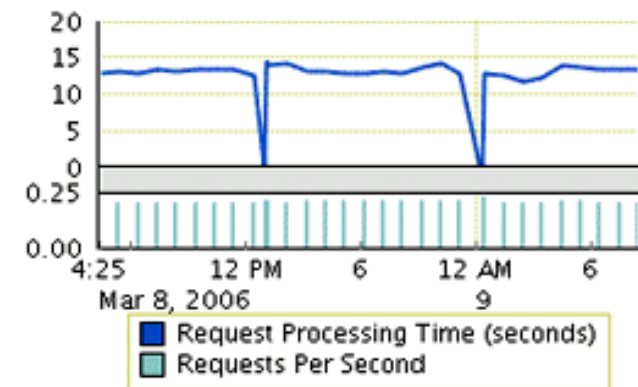
Active Sessions



Active Requests

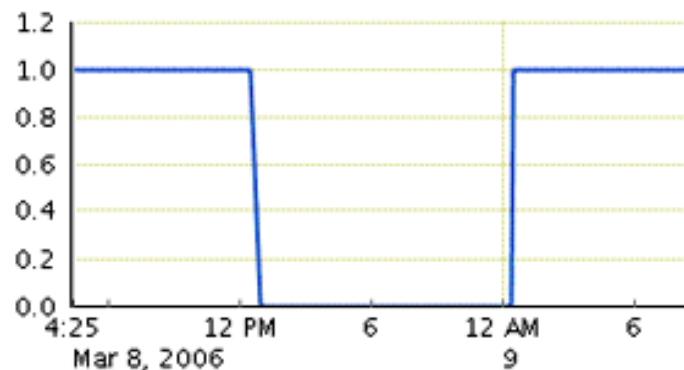


Response and Load

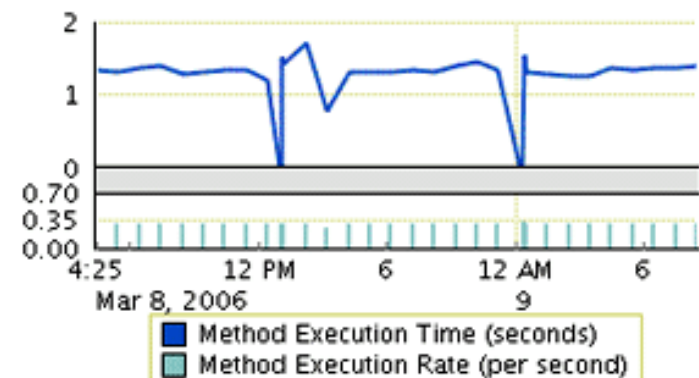


Response : EJBs

Active EJB Methods



Method Execution Time and Rate



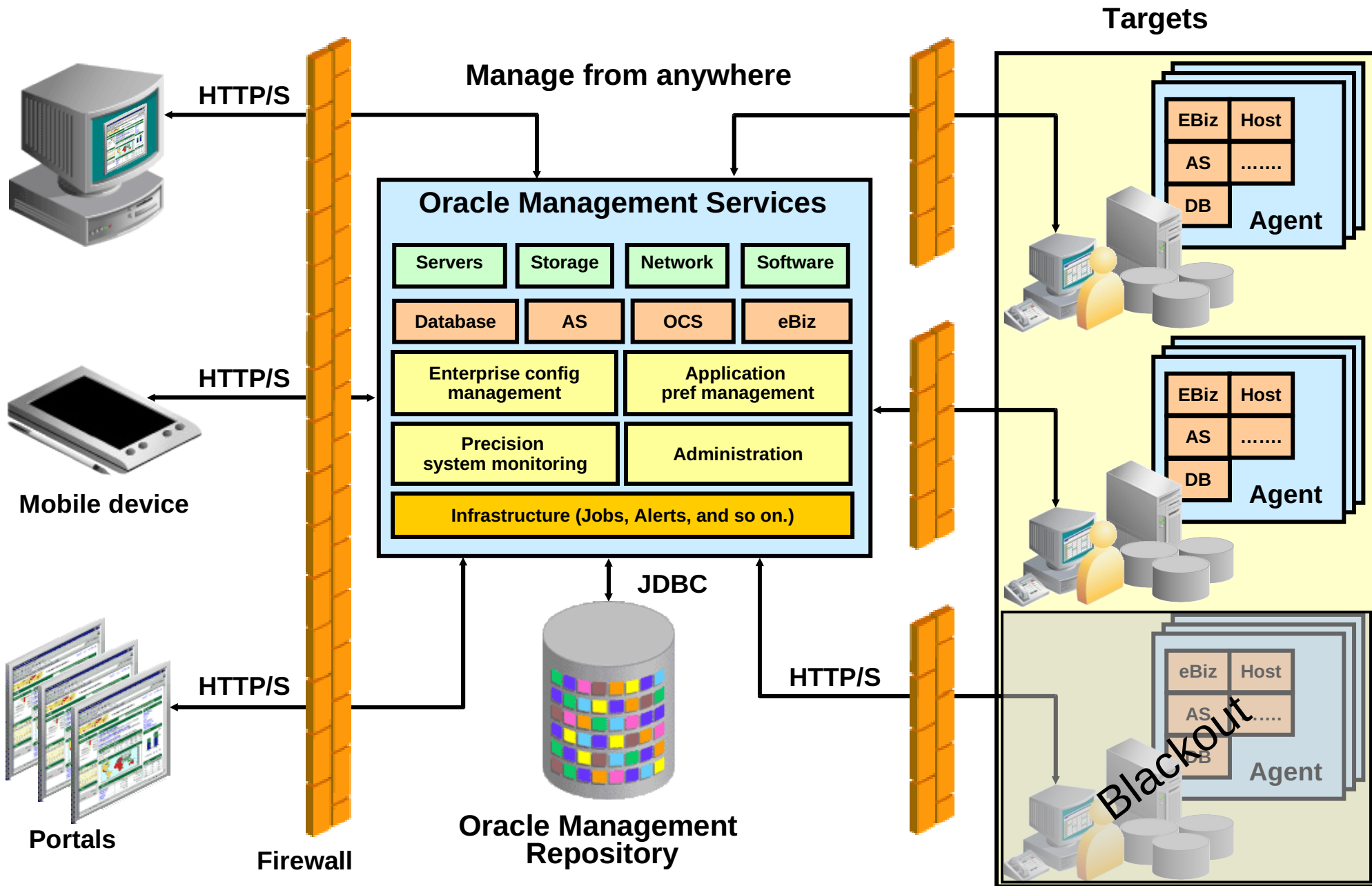
Related Links

[Top Servlets](#)

[Top JSPs](#)

[Top EJB Methods](#)

Blackout!



Gruppere og presentere... (dashboard)

ORACLE Enterprise Manager 10g [Customize](#) | [Help](#)
Grid Control

Group: Test Group Page Refreshed Dec 6, 2005

Target	Type	Status	Alerts ▼	Policy Violations	OC4J Instances - Active Sessions	Request Throughput (requests per second)	Request Processing Time (seconds)	CPU Usage (%)	Memory Usage (MB)	Hits (% of requests)	CF Utiliz (%)
edixr1p1_orcl.oracle.com	Database Instance		0 1	16 6 0	-	-	-	-	-	-	-
edidr5p0.us.oracle.com	Host		0 0	5 3 0	-	-	-	-	-	-	-
AppSer.edidr5p0	Oracle Application Server	4	0 0	2 0 0				-	-		-

Alerts 0 0 1

Severity	Target	Date ▼	Message	Latest Comment
	edixr1p1_orcl.oracle.com	Nov 2, 2005 12:11:04 PM	7 object(s) are invalid in the SYS schema.	

[Legend](#)

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Definere tjenester



CRM

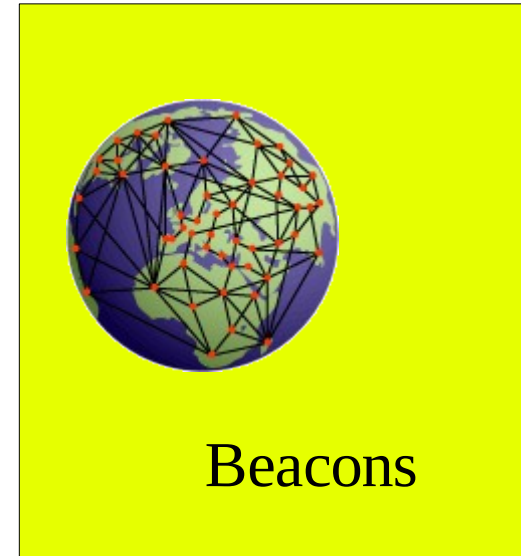


ERP



Web service

- SOAP
- HTTP ping



Beacons

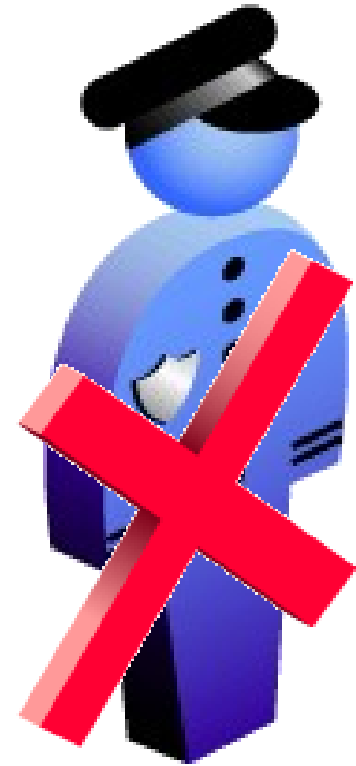


E-mail service

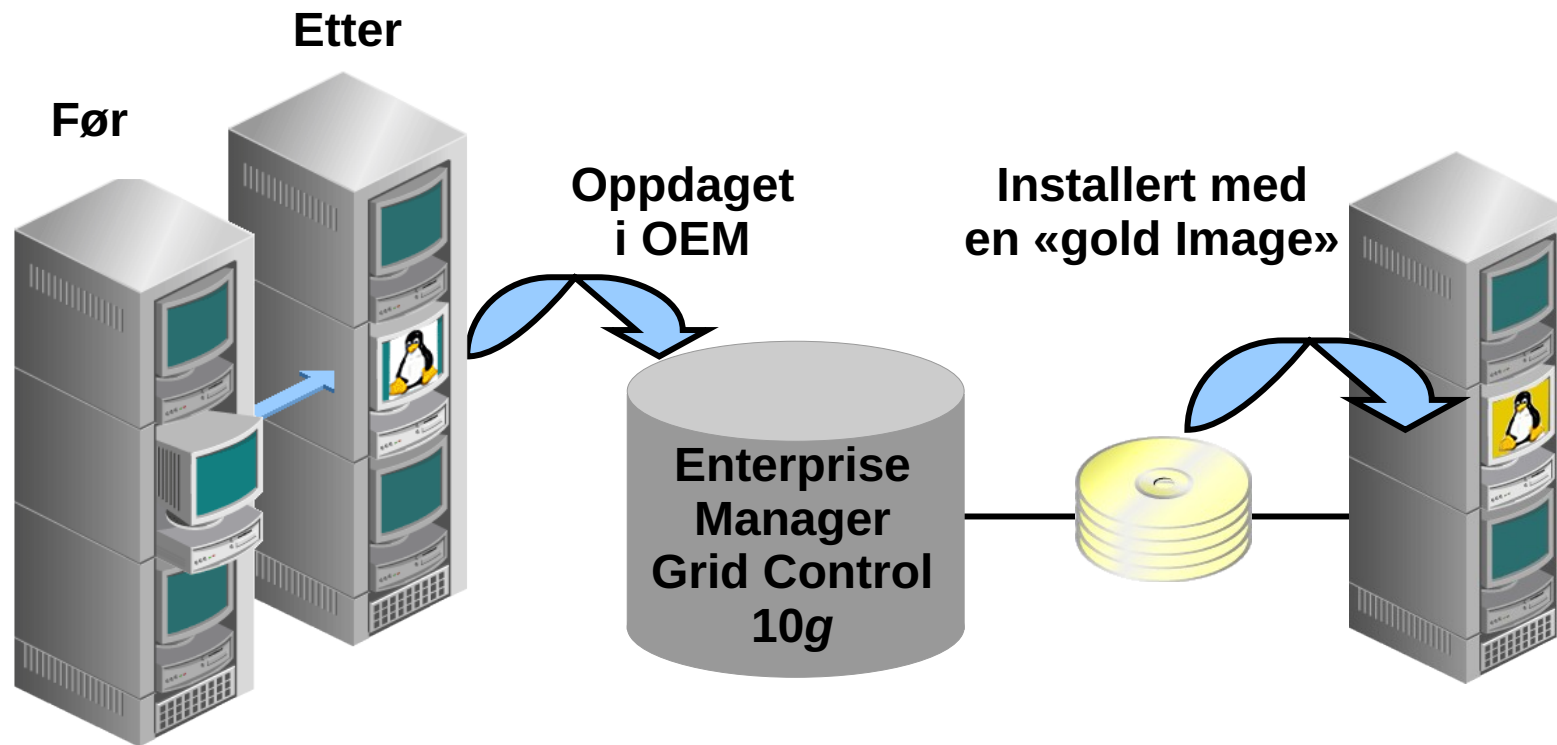
- POP
- SMTP
- IMAP

Ferdige standarder (policies)

- 214 ferdige standarder (10.2.0.1)
 - Konfigurasjon (25)
 - Sikkerhet (161)
 - Lagring (28)
- Gradert i tre nivåer
 - Informasjon
 - Varning
 - Kritisk



Provisioning



Konklusjon

- Svært mange muligheter
- Bruk tid til å bli kjent med produktet
- Installer metadata i separat database
- Vær forsiktig med å prøve ut ferdige regler!
- Del inn i grupper: **Datavarehus** og **OLTP**

- Bruk siste versjon når det er mulig:
 - OMS
 - Agent
 - Meta database