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Enterprise Manager 12c Overview

Nicolas Marescaux

IT Department – DB Group





Enterprise Manager 12c



EM12c Beta Program @ CERN

- ✓ Oracle/CERN team
- ✓ Outcomes

What's new?

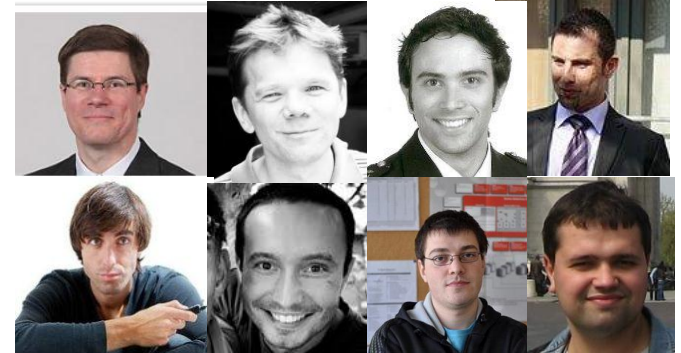
- ✓ Oracle Management Service Management
- ✓ Framework Enhancements
- ✓ Fusion Middleware Management
- ✓ Database Management (Intro)
- ✓ Virtualization/Cloud Management (Intro)





- CERN Team

- Eric Grancher
- Artur Wiecek
- Carlos Garcia Fernandez
- Luigi Gallerani
- Mariusz Piorkowski
- Andrei Dumitru
- Nicolas Marescaux
- Anton Topurov



- Oracle team

- Andrew Bulloch (SCP team)
- Akanksha Sheoran (EM Product Management team)
- EM development team, Oracle Support

- Tracks

- Installation/upgrade
- Framework
- Database Management
- Cloud Management



EM 12c Beta @ CERN

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- CERN & EM12c Beta Program
 - Participating in Beta Phase 2 in Oracle HQ (March)
 - Participating in Beta Phase 3 at CERN (this summer)
 - With Oracle on-site support during 1 week
- Outcomes
 - 57 pages of feedback reported to Oracle
 - 10 Service Requests open
 - Many bugs filled
 - 58 issues found, many already fixed, some still under investigation!
- Quote from Oracle
 - *“CERN has a very good reputation inside Oracle development for delivering high quality work and feedback and I'm sure in the EM Beta test their reputation will only be further enhanced with your efforts so a hearty thanks from us both !”* – Andrew Bulloch, Director, Application Systems Management Products, Oracle.



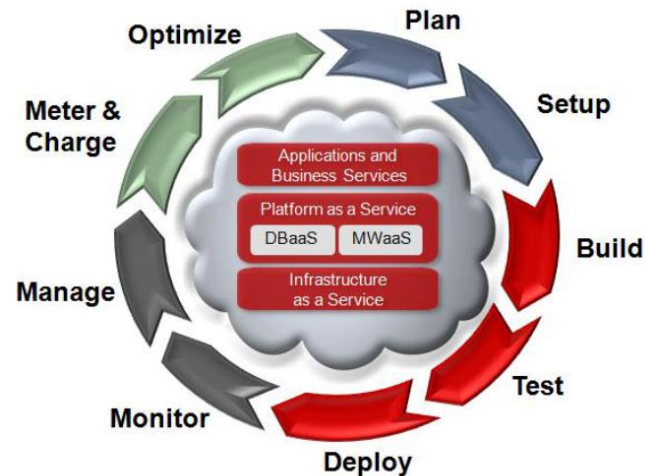


Enterprise Manager 12c

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Total Cloud Control

- Self-Service IT
 - Complete Lifecycle Management
- Simple & Automated
 - Full Cloud Stack Integrated Management
- Business-Driven
 - Business-Driven, Service-Oriented Applications Management



ORACLE

Enterprise Manager Cloud Control 12c

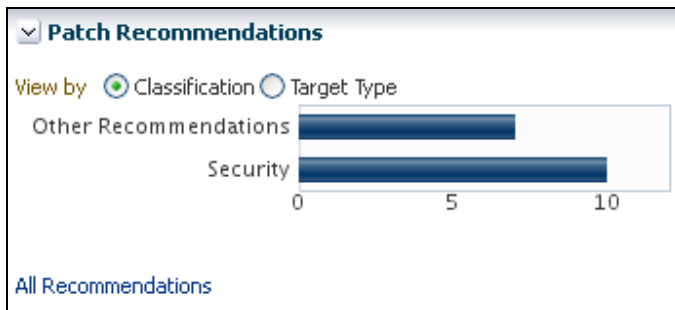
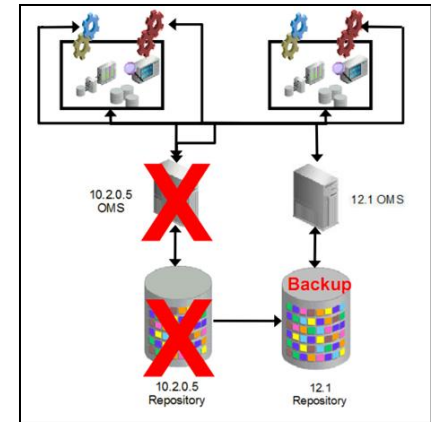




Oracle Management Service



- Installation
 - Silent or graphical
 - “Install software only & configure later”
- Upgrade
 - From 10.2.0.5 or higher
 - New 2-systems upgrade approach
- Maintenance
 - Use **Patch Recommendations** to receive notification
 - Update Management Agents with **Automated Patching** feature





Framework Enhancements

- Pluggable Framework
 - Management & monitoring features for any type of target are now provided via plug-ins
 - Download & deploy new plug-in when support for a new target type (a new release of a monitored product) becomes available

The screenshot shows the Enterprise Manager Cloud Control 12c interface. The main section is titled "Plug-ins" and displays a table of available plug-ins. Below this, there is a section for "Oracle Database" with a "Recent Deployment Activities" table.

Name	Management Servers...	Version	Management Agent with Plug-in	Description
	Management Agent...	Latest Downloaded	On Management Server	
Applications				
Databases				
IBM DB2 Database	12.1.0.1.0	12.1.0.1.0	12.1.0.1.0	0 IBM DB2 Database Plugin for monitoring DB2 databases from Enterprise Manager
Oracle Database	12.1.0.1.0	12.1.0.1.0	12.1.0.1.0	9 Oracle Database plugin provides comprehensive management for Oracle Database and related targets such as Real Application Clusters, Auto
Sybase ASE Database	12.1.0.1.0	12.1.0.1.0	12.1.0.1.0	0 Sybase ASE Server Plugin for monitoring Sybase ASE Server from Enterprise Manager
Oracle Fusion Middleware	12.1.0.1.0	12.1.0.1.0	12.1.0.1.0	1 Oracle FPMW Plugin consists of monitoring and management for Oracle Fusion Middleware and diagnostics in middleware area.
Servers, Storage and Network				
Exalogic Elastic Cloud Infrastructure	12.1.0.1.0	12.1.0.1.0	12.1.0.1.0	0 Elastic Cloud Infrastructure
Oracle Beacon	12.1.0.1.0	12.1.0.1.0	12.1.0.1.0	1 Oracle Beacon plugin is required on the Managed Hosts to support beacon test monitoring capability
Oracle Chargeback and Capacity Pl	12.1.0.1.0	12.1.0.1.0	12.1.0.1.0	0 Oracle Chargeback, Consolidation Planner and Capacity Planning Plug-in
Oracle Exadata	12.1.0.1.0	12.1.0.1.0	12.1.0.1.0	0 Oracle Exadata plugin provides comprehensive management for Oracle Exadata and related targets such as Database Machine, etc.
Oracle MOS (My Oracle Support)	12.1.0.1.0	12.1.0.1.0	12.1.0.1.0	0 Oracle MOS plugin provides support for My Oracle Support features such as Knowledge, Service Requests and Patching and Updates.

Action	Status	Version	User	Start Time
Deployment on Agent : dbvrtg056:1831	Success	12.1.0.1.0	MP1ORKOW	November 25, 2011 9:48:29 AM GMT+01
Deployment on Agent : dbvrtg053:1831	Success	12.1.0.1.0	MP1ORKOW	November 25, 2011 9:47:10 AM GMT+01
Deployment on Agent : dbvrtg017:1831	Success	12.1.0.1.0	MP1ORKOW	November 25, 2011 9:46:09 AM GMT+01
Deployment on Agent : dbvrtg020:1831	Success	12.1.0.1.0	MP1ORKOW	November 25, 2011 9:45:09 AM GMT+01
Deployment on Agent : dbvrtg038.cern.ch:3872	Success	12.1.0.1.0	NMARESCA	November 24, 2011 10:05:00 AM GMT+01
Deployment on Agent : dbrsvg3306.cern.ch:1831	Success	12.1.0.1.0	NMARESCA	November 24, 2011 10:01:39 AM GMT+01
Deployment on Agent : dbrsvg3215.cern.ch:1831	Success	12.1.0.1.0	NMARESCA	November 24, 2011 10:00:40 AM GMT+01
Deployment on Agent : dbrsvg3214.cern.ch:1831	Success	12.1.0.1.0	NMARESCA	November 22, 2011 11:54:18 AM GMT+01
Deployment on Agent : dbrsvg3112.cern.ch:1831	Success	12.1.0.1.0	NMARESCA	November 22, 2011 11:53:21 AM GMT+01
Deployment on Management Server : dbrsvg421.cern.ch:4889_Management_Service	Success	12.1.0.1.0	SYSMAN	November 21, 2011 1:13:55 PM GMT+01





Framework Enhancements

- New Graphical User Interface
 - Fully customizable layout and target home pages
 - Intuitive tree-style menu
 - Global search improvements
 - New “Favorites” & “History” menus

The screenshot displays the Enterprise Manager Cloud Control 12c interface. It features a navigation menu on the left with categories like Databases, Groups, Systems and Services, Middleware, and Servers, Storage and Network. The main area is divided into several panels: Enterprise Summary with a 91% status gauge, Incidents, Problems, Jobs, Patch Recommendations, Inventory and Usage, Compliance Summary, Least Compliant Targets, and Service Requests. A table at the bottom lists various targets with their names and types.

Target Name	Target Type
/EMGC_GCDomain/GCDomain	Oracle WebLo
/EMGC_GCDomain/GCDomain/EMGC_ADMINSERVER	Oracle WebLo
/EMGC_GCDomain/GCDomain/EMGC_ADMINSERVER/mds-owsm	Metadata Rep
/EMGC_GCDomain/GCDomain/EMGC_ADMINSERVER/mds-sysman_mds	Metadata Rep
/EMGC_GCDomain/GCDomain/EMGC_OMS1	Oracle WebLo
/EMGC_GCDomain/GCDomain/EMGC_OMS1/emgc	Application De
/EMGC_GCDomain/GCDomain/EMGC_OMS1/emgps	Application De
/EMGC_GCDomain/GCDomain/EMGC_OMS1/OCMRpeater	Application De
/EMGC_GCDomain/GCDomain/EMGC_OMS1/oracle.security.apm(11.1.1.3.0)	Oracle Author
/EMGC_GCDomain/instance1/ohs1	Oracle HTTP S
agent12g_2_dbvrtg038	Oracle Home
agent12g_16_dbvrtg421	Oracle Home
agent12g_1_dbvrtg053	Oracle Home
agent12g_1_dbvrtg055	Oracle Home
agent12g_1_dbvrtg056	Oracle Home
agent12g_1_ovm3anton	Oracle Home
agent12g_3_dbvrtg3112	Oracle Home
agent12g_3_dbvrtg3214	Oracle Home
agent12g_3_dbvrtg3215	Oracle Home
agent12g_3_dbvrtg3306	Oracle Home
agent12g_3_dbvrtg017	Oracle Home
agent12g_3_dbvrtg020	Oracle Home
AISDBD.WORLD	Cluster Database
AISDBD.WORLD_AISDBD1	Database Instance





Framework Enhancements

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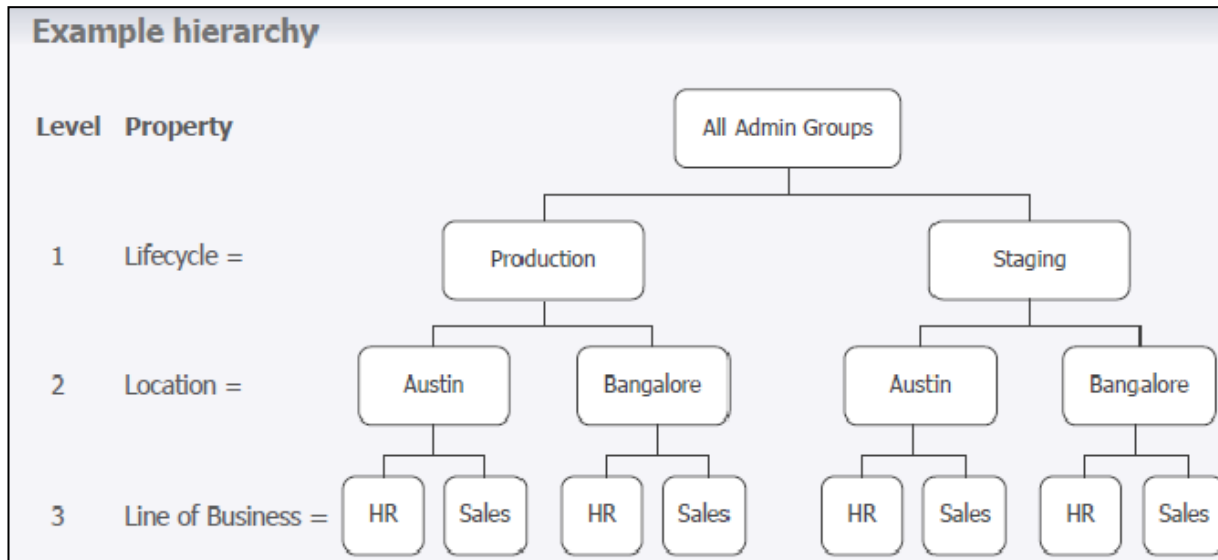
- EM Administrators Authentication
 - Repository-based authentication
 - Provisioning/de-provisioning of EM user accounts from Microsoft Active Directory
- Enterprise Manager Authorization
 - 200+ new Fine-grained Privileges for sensitive resources access control, 25 out-of-the-box EM user roles
 - Support of SSH keys-based access to hosts
 - Support of Kerberos tickets & PKI certificates access to Databases
 - Named credentials securely stored and granted to EM users





Framework Enhancements

- New targets grouping model
 - New administration groups model
 - Based on hierarchical grouping & targets Global Properties (Lifecycle, domains, versions...)



- New targets & association model



Middleware Management

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Replay Information
Request Divergence Summary

- Client IP, Server IP
- URL (Page, Object)
- Cookie/Session ID
- Referrer
- Time/Date

Enterprise Manager Cloud Control 12c
Setup Help NMARESCA

Target Navigation

- EMGC_GCDomain
 - Application Deployments
 - emgc (EMGC_OMS1)**
 - empbs (EMGC_OMS1)
 - OCMRpeater (EMGC_OMS1)
 - WebLogic Domain
 - Identity and Access
 - Metadata Repositories
 - Web Tier

emgc
Page Refreshed Dec 12, 2011 5:09:12

Summary

General

Up Since Nov 29, 2011 1:58:45 PM

Availability (%) 100

Application Type ear

Deployed On EMGC_OMS1

Servlets and JSPs

Active Sessions 12

Request Processing Time (ms) 701

Requests (per minute) 3.20

Work Manager

Requests (per minute) 3.80

Pending Requests 0

Tools

To configure and manage this WebLogic Application Deployment, use the [WebLogic Server Administration Console](#).

Monitoring and Diagnostics

Incidents 0

Configuration Changes 0

EJBs

Beans In Use 0

Bean Accesses (per minute) 0.00

Bean Access Successes (%) 0.00

Bean Transaction Commits (per minute) 0.00

Bean Transaction Rollbacks (per minute) 0.00

Bean Transaction Timeouts (per minute) 0.00

Bean Transaction Commits (%) 0.00

Response and Load

Most Requested (last 24 hours)

Servlets and JSPs Oracle Infrastructure Web Services Java EE Web Services


Name	Web Module	Dependency	Requests Processed	Average Client Processing Time (ms)	Requests (per minute)	Process
oracle.sysman.emWebservices.inbound.jobs.worker.Console.JobStepExecutor	/em		3,249	1,048	2.26	
FileServlet	/em		913	4	0.63	
UIXCacheResourceServlet	/em		288	3	0.20	
login	/em		288	12	0.20	
oraclejsp	/em		270	38	0.19	
resources	/em		190	14	0.13	
Faces	/em		41	537	0.03	
adflibResources	/em		7	3	0.00	
/login.jsp	/em		3	1	0.00	
dynamicImage	/em		3	4	0.00	






Database Management

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Monitored SQL Execution Details 

[Text Report](#) Refresh **5 seconds**  [Stop Refresh](#)

Overview

Real-Time ADDM Results

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

[Progress](#) [Findings](#) [Hardware Resources](#) [Activity](#) [Hang Data](#) [Statistics](#)


Status: **IN_PROGRESS**

Start Time: Fri Jul 22, 2011 4:07:12 PM






End Time: Fri Jul 22, 2011 4:17:12 PM

Number of Findings: **1**

Normal Connection

-  JDBC Connection to the Database

Diagnostic Connection

-  Acquire SYSDBA Credentials
-  Session Activity by Wait Classes
-  Hang Analysis Data
-  I/O Metrics
-  Host Metrics



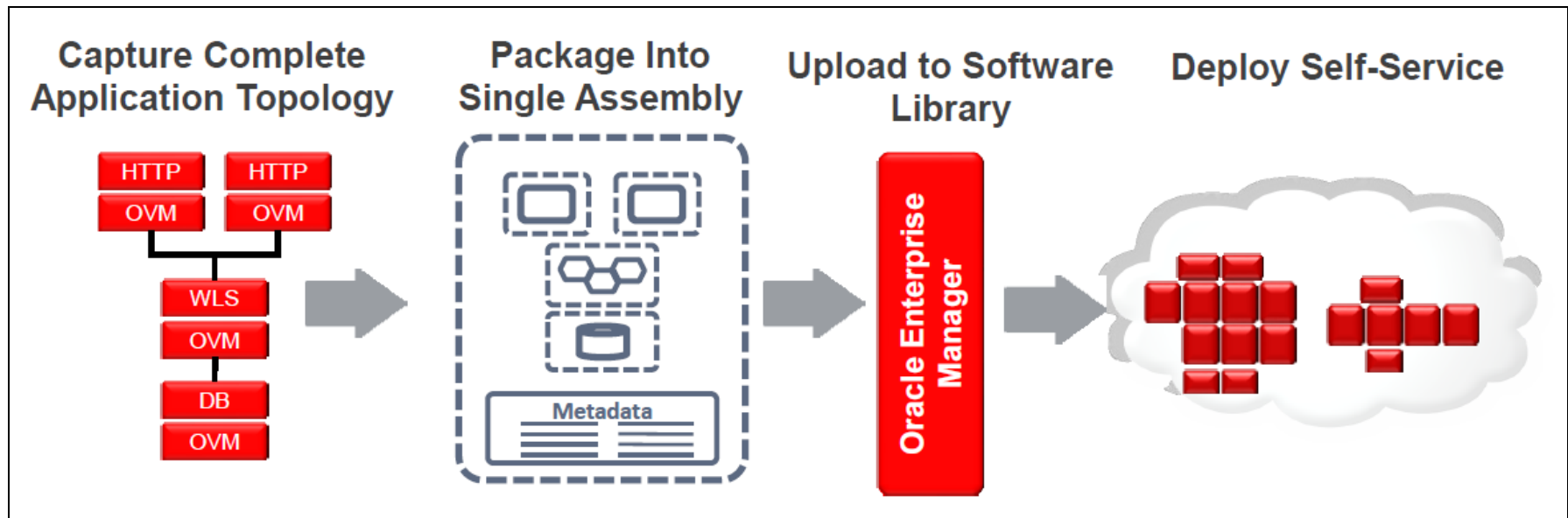
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Virtualization/Cloud Management

- Virtualization Management with OVM3 Integration
 - Manage zones & server pools
 - Monitor virtual servers resources
- Graphical view of Cloud Infrastructure topology
 - Drill down from application tier to storage details
 - Get details views of each layer
- Dynamic provisioning of IT resources/applications





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Thank you!

