ORACLE ENTERPRISE MANAGER 10^{g} GRID CONTROL RELEASE 3

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MANAGE YOUR COMPLETE DATA CENTER WITH ORACLE ENTERRPISE MANAGER 10G GRID CONTROL RELEASE 3:

Oracle is the only applications vendor that has a complete and integrated management solution for your applications, your software infrastructure and other IT components that support these applications including Oracle and non-Oracle middleware and databases, storage, networks, and hosts

RELEASE 3 KEY BENEFITS:

- Support for Oracle Applications and Application Service Management
- Enhances Automation
- Includes Configuration Management with Compliance Tracking
- Supports Non-Oracle Management Frameworks and Middleware.

IT organizations are continuously challenged to keep up with evolutions in business and technology, while striving to remain competitive by finding solutions that will simplify and lower the cost of managing their systems. Oracle Enterprise Manager 10g Grid Control provides this solution. Enterprise Manager is Oracle's single, integrated solution for administering, operating and monitoring applications and systems. Oracle Enterprise Manager 10g Release 3 Grid Control provides enhanced manageability and automation for your grid. It also extends the manageability to non-Oracle management frameworks and middleware.

APPLICATION AND APPLICATION SERVICES MANAGEMENT

Delivering Improved Oracle Applications Performance and Availability

Oracle Applications, including Oracle E-Business Suite, PeopleSoft Enterprise, and Siebel, are leading business management systems that enable you to manage all aspects of your business and achieve superior business results. Properly managing these applications and their underlying infrastructure is critical, as problems with the applications may impact employee productivity and the ability for your organization to serve your customers.

Oracle Enterprise Manager 10g Release 3 help address the key challenges for managing Oracle Applications:

- Ensuring the performance and availability of the applications
- Resolving problems quickly if they occur in order to minimize impact
- Containing the on-going costs associated with managing the applications
- Aligning IT and line-of-business priorities so the resources are applied to activities that generate the most business benefits

The Oracle Application Management Packs extend Oracle Enterprise Manager to provide a comprehensive, integrated management solution that helps you achieve high levels of performance and availability, and reduce the costs of managing your Oracle Applications. Through the management packs, you can proactively monitor the health of all Oracle Application components, the hosts that they run on, and the key business processes that they support. If a potential problem is spotted, you may use Oracle Enterprise Manager's diagnostic tools to identify the root cause and fix it quickly. In addition, Oracle Enterprise Manager helps you visualize the impact of application performance in the context of business impacts, so that you can apply

resources in a way that is aligned with your business priorities. Besides monitoring and diagnostics, Oracle Enterprise Manager also helps you manage the configuration of your application environment through its integrated configuration management tool. This tool helps you configure your application environment properly by keeping an inventory of your application and infrastructure components, tracking the changes that are made, and validating the changes to make sure that they are correct.

Extending Management to SOA Runtime Governance & SOA Infrastructure and Integrating with Oracle BAM

IT and Business managers face several challenges as SOA projects mature in their organizations. They need to align business indicators with system metrics, manage the SOA runtime environment and manage the SOA infrastructure. Enterprise Manager Grid Control provides end-to-end monitoring and management capabilities for the Oracle SOA Suite.

Grid Control provides runtime governance of BPEL processes, and enables you to set service levels on BPEL processes and dependent partner links. In addition, Grid Control records key metrics for Web services, for actual requests as well as through synthetic transactions. With Grid Control, you can also monitor and operate key SOA infrastructure components such as BPEL Process Manager (PM) server, Application Server (Oracle Application Server and several others), and the *dehydration store*.

Oracle Enterprise Manager 10*g* Grid Control Release 3 includes a *Java Messaging Service* (JMS) Connector to link Oracle Enterprise Manager with Oracle *Business Activity Monitoring* (BAM) including other systems supporting JMS as the transport. This bi-directional data exchange provides enhanced monitoring of SOA environments by allowing business KPIs to be visible from within Oracle Enterprise Manager, and system information (target availability information, metric data, and alerts) to be visible from BAM Dashboards.

Supporting Identify Management

Identity administrators need to monitor the health of Identity components constantly to ensure the quality of various Identity services. Total time to diagnose and fix a problem should be minimum in order to have minimal to no impact on the business. Scaling out these systems must be automated to support increasing demand for Identity Services. Patching and upgrading systems should be done with minimum or no down time.

Oracle Enterprise Manager 10*g* Grid Control Release 3 includes support for Oracle Access Manager, Identity Manager and Identity Federation that are part of Oracle *Identity Management Suite* version 10.1.4. Grid Control Release 3 provides the following features:

- One-step discovery and out-of-the box system modeling
- Manual definition of identity services and service level management
- Availability, performance, load and security related metrics.
- Configuration management for Oracle Access Manager

AUTOMATION: PROVISIONING AND PATCHING

Delivering Simplified, Reliable Capacity on Demand

As data center hardware resources grow due to increased computing demand, users need to deploy software efficiently to make those operational. This not only means deploying software in a rapid manner, but also ensuring that tested, proven and approved images get deployed and subsequently configured.

Operating System Provisioning

For the applications to run smoothly on the server, it is imperative that the operating system is provisioned, configured and secured properly. Yet provisioning new servers and re-provisioning existing servers can often be a manual, highly time-consuming task prone to errors and inconsistencies.

10g Grid Control Release 3 includes the functionality of Bare-Metal Provisioning of Linux operating system through a standardized PXE (Preboot Execution Environment) booting process and also facilitates delivery of additional software on top of the operating system. This functionality is supported on all major flavors of Linux, offering maximum datacenter flexibility. The Provisioning process also registers the server as a managed entity in Grid Control, so that it can be subsequently managed for other lifecycle operations, like patching. The Grid Control Provisioning application is template based and can assign hardware profiles, storage layouts and network configurations to the new machine. It can be effectively chained with additional vendor provided scripts to provision third party hardware like a storage disk of a load balancer. Additionally, it can be integrated with RAC provisioning to simplify the process of taking brand new hardware and turning it into a functioning cluster node.

Simplifying and Automating RAC and Application Server Cluster Deployment

Cloning is an effective way of deploying tested and approved software images (commonly referred to as ‘gold images’) either from a reference host or from the centralized software library. It can be used to standardize deployment of Oracle software, and is particularly useful for the highly complex tasks of creating new clusters and extending existing ones – useful for both database (Real Application Clusters software, including associated cluster infrastructure) as well as Application Server clusters. The fact that a single cloning job can distribute pre-patched software to multiple hosts makes it a scalable and efficient method of deploying Oracle software.

From a single Oracle Clusterware gold image and an Oracle RAC gold image the administrator can now either build a new cluster or add nodes to an existing cluster. One can also easily convert a single instance database to a RAC database if there is demand for such a scale-up. In a similar fashion one can extend the middleware using the cloning feature for Oracle Application Servers. The application completely hides the complexity of the underlying technology from the end user and thereby offers a low-cost, seamless way of scaling out an Oracle Grid environment.

The Deployment Procedure Manager in Grid Control offers powerful methods for managing cluster software. Among those options include “one-step” cluster

extending of a cluster: a single Deployment Procedure to manage the entire process of adding a new node into a RAC cluster. This includes (1) deploying a Management Agent, (2) extending the Clusterware software layer, (3) extending the RAC software, (4) optionally extending the Automatic Storage Management software, and (5) adding a database instance to the RAC. This set of operations, which could take days or weeks of manual effort, can now be accomplished with minimal effort.

End-To-End Patching Automation:
Delivering simplified, reliable maintenance of distributed systems.

The software deployment lifecycle does not end after the initial provisioning; after installation and configuration, proper maintenance of software and operating systems includes patch management over the lifecycle of the grid node. And over and above into basic concerns about patching to address functionality, compliance regulations have led to increased scrutiny of security practices, adding a greater responsibility to organizations to ensure the compliance of their IT systems..

Patching Oracle Software

In Release 3, the Patching application has been enriched to offer end-to-end Patching solution that works seamlessly across a wide range of product patches and customer environments. The Patching application automates the deployment of Oracle patches for the database including Clusterware and RAC, Application Server and Collaboration Suite. Using a direct link to Oracle, Grid Control's Critical Patch Facility proactively and performs daily queries to Oracle MetaLink to identify critical patches that have been released. By correlating the available patches with the specific systems and software running on a particular site, administrators are notified of only those patches applicable to them.

Operating System Patching

One major addition to the 10g Grid Control Patching solution is Operating System Patching on Linux, Windows, and Solaris. Multiple hosts can be dealt with together, as a single Patching group, and can either be patched reactively 'on demand' or proactively from a repository of tested and approved patches. This ensures that hosts are always in compliance with tested and approved software levels. Furthermore, these facilities can be integrated with vendor sites like RedHat Network in order to leverage their software updating capabilities.

CONFIGURATION: ASSESSING COMPLIANCE FROM THE ENTERPRISE PERSPECTIVE

Information security, privacy, and protection of corporate assets and data are of critical importance to every business. Increasing regulatory compliance demands that IT systems are secure and have not been compromised. Ensuring that IT systems are behaving in-line with security best practices is critical for any IT shop.

Tracking Compliance with Policy Groups

For databases, establishing a secure configuration is a very strong first line of defense, Policy groups included in Oracle Enterprise Manager 10g Grid Control Release 3 are structured collections of security configuration rules against which

targets may be measured or judged. The out-of-box policy groups include Secure Configuration for Oracle Database, Oracle Listener and Oracle Real Application Cluster. You can schedule periodic evaluations for continuous audits. A compliance score can be used to determine degree of compliance and track compliance posture over time. In addition, the Policy Group Compliance Dashboards enable administrators and CIOs to get at-a-glance views on how their systems are complying with security best practices specified in their environment.

Enforcing Compliance and Standardization with Monitoring Templates

Oracle Enterprise Manager 10g Grid Control Release 3 enhances Monitoring Templates. Monitoring Templates enable you to easily standardize best practice monitoring settings across your managed targets. Once a Monitoring Template has been defined and applied to your targets, you can generate on-demand or periodic diff reports to easily identify targets that are not in compliance with the Monitoring Template settings. Bringing these targets back to compliance is easily accomplished with a single button click within the Oracle Enterprise Manager console.

EXTENDED BREADTH OF COVERAGE: MANAGING APPLICATIONS ON ANY INFRASTRUCTURE

With Oracle Enterprise Manager 10g Release 3, two new and significant areas of investment have been made to enable Oracle customers to manage a wide array of non-Oracle components.

The first is extending the scope of Grid Control's management capabilities via native management extensions, and partner and customer plug-ins. This means developing and delivering plug-ins for hardware, software, and network and storage devices. New Management Plug-Ins available in this release include the following:

- *Oracle Enterprise Manager 10g Grid Control Systems Monitoring Plug-in for JBoss Application Server* allows you to centrally monitor JBoss partitions, its member application servers and deployed applications. For JBoss Application Server, Oracle Enterprise Manager automatically monitors over 60 performance metrics, offers comprehensive configuration management, predefined reports, and end-user performance monitoring.
- *Oracle Enterprise Manager 10g Grid Control Systems Monitoring Plug-in for IBM WebSphere MQ* allows you to centrally monitor IBM WebSphere MQ, MQ Clusters, Queue Managers, Channels and Queues.
- *Oracle Enterprise Manager 10g Grid Control Systems Monitoring Plug-ins for BEA WebLogic and IBM WebSphere* are enhanced to include configuration management. Oracle Enterprise Manager collects configuration data for BEA WebLogic and IBM WebSphere Application Server and allows for configuration analysis of instances, comparing settings between servers and tracking configuration changes over time.

The second part of this initiative includes integration solutions with non-Oracle management solutions to allow customers to leverage these investments without losing the unique value they gain from Grid Control. Grid Control Release 3 introduces three connectors:

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- *Oracle Enterprise Manager Connector for BMC Remedy Help Desk* automates the data center workflow by allowing Oracle Enterprise Manager to open, update, and/or close trouble tickets in Remedy Help Desk based on Oracle Enterprise Manager alerts.
- *Oracle Enterprise Manager Connector for Microsoft Operations Manager* provides selective forwarding of alerts/events from Microsoft Operations Manager 2005 to Oracle Enterprise Manager console.
- *Oracle Enterprise Manager Connector for Java Messaging Service* supports bi-directional data exchange between Oracle Enterprise Manager and other systems using JMS as the transport mechanism.

For More information

To learn more about Oracle Enterprise Manager 10*g* Grid Control visit:

http://www.oracle.com/enterprise_manager