

ORACLE ENTERPRISE MANAGER 10^g CONFIGURATION MANAGEMENT PACK FOR ORACLE APPLICATION SERVER

FEATURES AND KEY BENEFITS OF ORACLE ENTERPRISE MANAGER 10G CONFIGURATION MANAGEMENT PACK FOR ORACLE APPLICATION SERVER

Key Decision Support For

- Inventory Management
- Problem and Incident Management
- Change and Release Management
- Policy Management and Compliance

Through

- Single, Central Inventory of Host and Fusion Middleware Installation and Configuration Data
- Comprehensive Reports and Searches
- Comparison Analysis
- Change Tracking
- Critical Patch Advisory
- Oracle's Best Practices Policy and Security Policy Management
- Extensible Policy Management

Managing a grid requires automation and standardization for scalability. The Configuration Management Pack achieves these objectives by maintaining a single repository of configuration items. This enables you to accelerate resolution of incidents and problems, identify root cause of problems related to configuration changes, and manage policies & compliance. By automatically discovering all installed patches and comparing against notifications of recommended patches, it helps you build and maintain datacenters that are robust and immune to known security vulnerabilities

Capabilities of Configuration Management Pack

The Oracle Configuration Management Pack for Oracle Application Server automatically gathers detailed configuration information about all designated systems and components across the enterprise. It provides capabilities such as search and compare across all systems, configuration monitoring, policy management and compliance support, and comprehensive reporting. It also includes a critical patch advisory. This pack helps automate the time-consuming and error prone process of managing hardware, Fusion Middleware configurations, and deployments. Configuration Management Pack provides the decision support to help improve the efficiency and effectiveness of the following problems:

1. Asset and Inventory Management
2. Incident and Problem Management
3. Change and Release management
4. Policy Management and Compliance

Asset and Inventory Management

The Oracle Configuration Management Pack for Oracle Application Server automatically gathers detailed configuration information about hosts, operating systems and Fusion Middleware component instances. Configuration information collected includes data on:

- Host hardware specs including number and clock speed of the CPUs,

memory, hard disk and network information

- Operating system parameter settings, file system information and installed packages and patches
- Fusion Middleware software installed on the host including version and component information, patch sets and interim patches.
- Fusion Middleware software configuration data including configuration files.

By default, the configuration data is refreshed daily. The Oracle Configuration Management Pack for Oracle Application Server also allows users to easily capture, store and view such information on-demand. This information can then be used as a blueprint for creation of new systems. Administrators can also compare live Fusion Middleware configuration against configuration blueprints for configuration synchronization and standardization.

The screenshot shows the Oracle Enterprise Manager 10g Grid Control interface. The main content area is titled "Overview" and provides a high-level view of the Fusion Middleware inventory. It includes a table of Application Server Installations and various navigation links for configuration, patching, and cloning.

| Application Server Installations | Targets | Installations | Interim Patches |
|-----------------------------------------------|---------|---------------|-----------------|
| Oracle Application Server Instance 10.1.2.0.0 | 7 | 11 | No |
| Oracle Application Server Instance 10.1.2.0.2 | 9 | 10 | No |

Figure 1. Overview of Fusion Middleware Inventory

Incident and Problem Management

One of the critical functions in Configuration Management pack for Oracle Application Server is the analysis and diagnostics of middleware deployments. This helps in quickly pinpointing service performance problems to Fusion Middleware configuration problems. Faster speed of resolution helps administrators deliver highest quality of service to their end users. Numerous features in Oracle Enterprise Manager provide decision support for incident and problem management. These features include:

1. **Comprehensive Reporting:** Administrators can view comprehensive out of box configuration reports for hosts and Fusion Middleware instances, to better understand their data center deployments. Alternatively, they can create a custom report based on published management repository inventory views. Administrators can view these reports in a web browser or schedule a periodic email delivery.
2. **Comprehensive Searches:** Administrators can run out of box searches for

hardware, operating systems and Fusion Middleware. Some examples of searches are list of instances that have specific J2EE applications, data sources, patch levels or origin servers of Web Caches. Alternatively, administrators can perform on-demand searches based on user-defined SQL query against inventory views in management repository.

3. **Configuration Comparisons:** Administrators can compare configurations across application servers, or against a saved configuration blueprint, and find configuration anomalies-whether they are mismatch of install/patch version of Oracle AS software, or they are mismatch of software configuration data (data sources, J2EE applications, ports etc) for the core components of Oracle Application Server. It also simplifies investigations into why systems that are presumed to be identical may behave differently.
4. **Change Tracking:** All changes in installations and software configuration of hardware, operation system and fusion Middleware software are tracked so that administrators may know when they are happening, who is making them, what changes are acceptable, and what changes must be corrected. This audit also helps administrator diagnose service performance or availability problems to the changes introduced in Fusion Middleware deployments.

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs Reports Setup Preferences Help Logout

General Provisioning

Compare OC4J >

Different: Application petstore

First midtier1012_1_stach08.us.oracle.com_oc4j_1 Collected Oct 17, 2005 12:02:47 PM PDT
Second midtier1012_1_stach08.us.oracle.com_oc4j_2 Collected Oct 17, 2005 12:05:44 PM PDT

Parent Application

| Result | Property | midtier1012_1_stach08.us.oracle.com_oc4j_1 | midtier1012_1_stach08.us.oracle.com_oc4j_2 |
|--------|--------------------|--------------------------------------------|--------------------------------------------|
| [-] | Parent Application | default | default |

Modules

| Result | Module | Module Type | Module | Module Type |
|--------|------------------------|-------------|------------------------|-------------|
| [+] | petstore | Web Module | petstore | Web Module |
| [-] | customerEjb.jar | EJB Module | customerEjb.jar | EJB Module |
| [-] | inventoryEjb.jar | EJB Module | inventoryEjb.jar | EJB Module |
| [-] | mailerEjb.jar | EJB Module | mailerEjb.jar | EJB Module |
| [-] | personalizationEjb.jar | EJB Module | personalizationEjb.jar | EJB Module |
| [-] | petstoreEjb.jar | EJB Module | petstoreEjb.jar | EJB Module |
| [-] | shoppingcartEjb.jar | EJB Module | shoppingcartEjb.jar | EJB Module |
| [-] | signonEjb.jar | EJB Module | signonEjb.jar | EJB Module |

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About Oracle Enterprise Manager

Figure 2. Configuration Analysis Drilldown to J2EE Application Differences, in Oracle Container for J2EE

Change and Release Management

Tracking the potential patches for known security vulnerabilities and planning to apply them across Fusion Middleware Grid is a key function in Fusion Middleware Change and Release Management. The Critical Patch Advisory in Configuration Management pack for Oracle Application Server automatically inspects the Fusion Middleware deployments and alerts administrators of critical patches issued by Oracle. Oracle Enterprise Manager automatically discovers critical patches and also highlights the Fusion Middleware deployments that are in violation of the discovered advisories. This helps administrators get proactive information about the security vulnerability patches that they need to plan to apply, before encountering

RELATED PRODUCTS

The Oracle Configuration Management Pack for Oracle Application Server is integrated with the following Oracle Management applications:

- Management Packs for Database
 - Tuning Pack
 - Diagnostics Pack
 - Configuration Pack
 - Change Management Pack
- Management Packs for Application Server
 - Diagnostics Pack
 - Configuration Pack
- Stand Alone Management Packs
 - Service Level Management Pack
 - Configuration Management Pack for Non-Oracle Systems
 - Provisioning Pack
- Management Plug-ins
 - System Monitoring Plug-in for Hosts
 - System Monitoring Plug-in for Non-Oracle Databases
 - System Monitoring Plug-in for Non-Oracle Middleware
 - System Monitoring Plug-in for Network Devices
 - System Monitoring Plug-in for Storage
- Management Connectors

- Detailed information on these products can be located at www.oracle.com

those security vulnerabilities in their datacenter.

Policy Management and Compliance

Configuration management pack allows administrators to define rules (or policies) – most of which are available out-of-box (Oracle’s best practice security and configuration policies) – responsible for governing the configuration of all the systems and software (hosts and their operating systems as well as Oracle Fusion Middleware installations) running across the enterprise. And because the natural configuration lifecycle of any system means it will be changed – through installation of patches, adding files and directories, changing ports, editing its dependencies, etc – once a system is rolled out, Grid Control continually audits it against its pre-defined policies. Individual policies can be deactivated enterprise-wide or on a per-instance basis. This level of security and compliance through proactive auditing and enforcement is necessary to keep harmony in the continual flux that defines most data centers. It is also critical to maintaining order and meeting compliance standards as new systems are brought on line, existing systems are upgraded or patches applied.

Summary

Configuration Management has taken on great traction with the rapid adoption of Information Technology Information Library (ITIL). Configuration Management is also foundation to all Service Support processes, enabling effective incident management, problem management, change management, and release management. Various features in Configuration Management pack for Oracle Application Server deliver effective decision support for these key datacenter activities. IT organizations can achieve standardization and, thereby, enable automation of various administrative tasks across Fusion Middleware deployments, and keep administrative cost flat or nearly flat even when the Middleware Grid scales out.