

ORACLE ENTERPRISE MANAGER 10g: ORACLE PROVISIONING AND PATCH AUTOMATION PACK FOR ORACLE MIDDLEWARE

ORACLE
ENTERPRISE MANAGER **10g**

BENEFITS

- Automate patching for Oracle Fusion Middleware and its underlying operating system
- Prevent application vulnerabilities using the critical patch facility
- Reduce Linux provisioning time through bare metal operating system provisioning
- Utilize predefined best practices through deployment procedure-based patching and provisioning
- Rapidly scale and minimize provisioning problems through Oracle Fusion Middleware cloning
- Efficiently extend J2EE clusters to accommodate workload changes
- Integrate existing scripts with automated patching using CLI runtime execution
- Improve enterprise security and compliance initiatives through provisioning and deployment reports

By simplifying critical data center operations organizations can reduce operational risk and lower their total cost of IT ownership. The Oracle Provisioning and Patch Automation Pack for Oracle Middleware automates the deployment of software, applications, and patches. Using this solution, IT administrators can provision the entire software stack from the operating system to the middleware and application database. These capabilities, combined with comprehensive reporting tools enable Oracle Provisioning and Patch Automation Pack for Oracle Middleware users to efficiently and effectively manage their overall systems infrastructure.

Save Time and Money with Automated Provisioning

Oracle Provisioning and Patch Automation Pack for Oracle Middleware reduces manual labor—especially tedious and error-prone tasks—while simultaneously creating standard, scalable software environments. Through a rich set of provisioning capabilities, administrators can streamline data center operations and dramatically reduce the time required to perform provisioning functions.

The following table provides the results of internal tests of common provisioning tasks. As the data shows, the hours needed for each task decreased substantially when using Oracle Enterprise Manager and the Oracle Provisioning and Patch Automation Pack for Oracle Middleware.

Completing Common Provisioning Tasks With and Without Oracle Enterprise Manager						
Task	# Per Year	# of Sys-tems	Hrs/Yr w/o Oracle Enterprise Manager	Hrs/Yr w/ Oracle Enterprise Manager	Hours Saved	Savings Factor
Patch application	25	100	1250	21	1229	60
Oracle software cloning	15	100	1188	250	938	4
Extension of J2EE cluster	15	10	377	112	265	3
Bare metal Linux provisioning	10	100	1188	166	1022	7

Table 1. Based on internal benchmarks, Oracle Provisioning and Patch Automation Pack for Oracle Middleware dramatically reduces the time required to perform provisioning tasks.

End-to-end Infrastructure Patching

Oracle Enterprise Manager includes an end-to-end patching solution that works seamlessly across a wide range of product patches and customer environments.

Automated Patching for Oracle Fusion Middleware

Oracle Provisioning and Patch Automation Pack for Oracle Middleware automates the deployment of Oracle patches for Oracle Fusion Middleware and Oracle management agents. The application takes care of appropriate shutdown and startup of services and allows execution of pre- and post-patching scripts to serve different use cases. This flexibility makes mass deployment of interim patches and patch sets feasible even in complex multitier environments.

Best Practice Support Through Deployment Procedures

To increase the power and flexibility of Oracle patching for more complex multitier environments the Oracle Provisioning and Patch Automation Pack for Oracle Middleware leverages the deployment procedure based infrastructure. These out-of-the-box deployment procedures represent Oracle best practices that can be run as is or customized—users can enable and disable steps or add custom steps—for specific needs. Deployment procedures also support secure host authentication using super user do (sudo) or pluggable authentication modules (PAM). The entire patching application can be run in command line (CLI) mode making it possible to integrate with existing scripts.

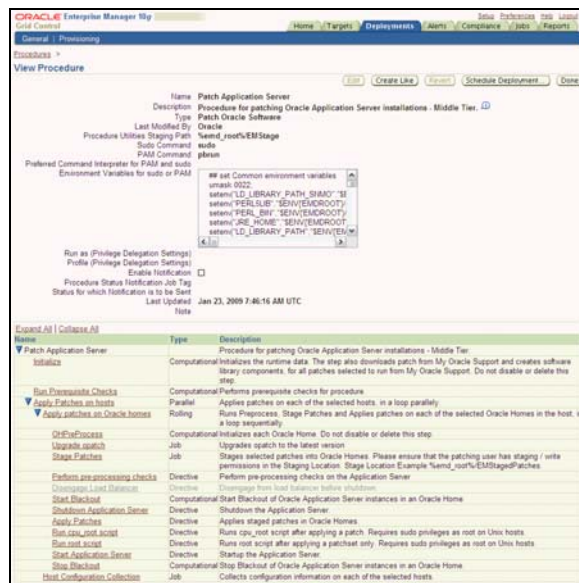


Figure 1. Deployment procedure-based patching of Oracle Fusion Middleware

Intelligent Management of Critical Patches

Oracle Enterprise Manager includes a critical patch facility that regularly and proactively queries My Oracle Support for critical patches that have been released. Administrators receive notifications for any relevant patches and can invoke the patch application in context to remediate the vulnerable installations. The critical patch facility offers an offline mode for data centers not connected to the internet.

Patching Support for Popular Operating Systems

Oracle Enterprise Manager supports patching of popular operating systems including Linux, Windows, and Solaris. For Linux, Oracle Enterprise Manager has the ability to download patches directly from the Unbreakable Linux Network (ULN). In addition, several Linux hosts can be clubbed under a single patching group and be patched on a proactive or as needed basis from a repository of tested and approved patches. Oracle Enterprise Manager presents a complete enterprise wide view of Linux environments with the ability to drill down into non-compliant hosts. This helps ensure that hosts are always in compliance with tested and approved software levels. Oracle Enterprise Manager also supports ad-hoc patching of Linux, Windows, and Solaris operating systems using native patching methods.

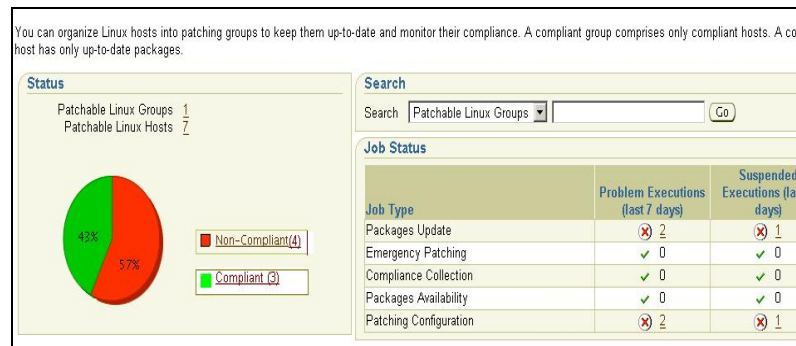


Figure 2. Oracle Enterprise Manager supports proactive patching for Linux

Centralized Reporting for Patch Deployments

All the above patching features are backed by a powerful centralized reporting facility that produces both detailed and summary information on patch deployments and non-compliant installations. The application provides both out-of-the-box and ad hoc reporting capabilities with support for scheduling and secure publishing to satisfy different customer needs and help make effective decisions.

Server and Software Provisioning

The philosophy of grid computing centers around the ability to quickly and efficiently deploy, reassign, and operationalize hardware and software resources.

Bare Metal Provisioning for Linux

Oracle Enterprise Manager supports bare metal provisioning of the Linux operating system through a standardized PXE (Preboot Execution Environment) booting process. As a part of this process, administrators can associate images with specific hardware and storage templates to cover the variety of hardware population and provision additional software on top of the operating system. Provisioned servers are registered in Oracle Enterprise Manager for all future system management.

Deployment Procedures for Oracle Fusion Middleware

Oracle Enterprise Manager comes with out-of-the-box deployment procedures to install Oracle Fusion Middleware software following best practices. These procedures automate product installation and configuration of networking and load balancers to eliminate time consuming and error-prone manual processes and maximize application availability.

Release Management and Cloning

Oracle Enterprise Manager supports the release management process through the provisioning or cloning of “gold images” from a reference host or a software library of images. The “gold images” are tested and approved software images and can be patched to any level before deployment. The cloning process makes automatic context specific adjustments for settings such as IP address and hostname. In addition, application server deployment procedures allow for instance specific configuration such as instance name and instance administrative password.

Cloning is supported for Oracle Fusion Middleware software, including: Oracle HTTP Server, Oracle Containers for J2EE, Oracle BPEL Process Manager, and Oracle Enterprise Service Bus.

Cluster Scale Up

To address the growing business demands, modern data centers must augment and relocate resources quickly. Using Oracle Enterprise Manager, administrators can leverage cloning technology to rapidly extend an existing Java Platform 2, Enterprise Edition (J2EE) cluster with additional application server instances to accommodate an increase in application load.

Figure 3. Efficiently extend an Oracle Application Server cluster with the application server deployment 10.1.3.x SOA deployment procedure.

Contact Us

For more information about Oracle Provisioning and Patch Automation Pack for Oracle Middleware, please visit oracle.com/enterprise_manager/index.html or call +1.800.ORACLE1 to speak to an Oracle representative.



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