

ORACLE PROVISIONING AND PATCH AUTOMATION PACK FOR ORACLE DATABASE

ORACLE
ENTERPRISE MANAGER **11^g**

KEY FEATURES AND BENEFITS

FEATURES

- Automated patching for Oracle products and the operating system
- Flexible, extensible Deployment Procedure based patching and provisioning
- Integration with My Oracle Support
- Patch Recommendations
- Patch Validation and Single Click Merge Patch request process
- Software Image Library
- Database, RAC, Grid Infrastructure, Clusterware and Automated Storage Management provisioning across versions and platforms
- Single click cluster scale out and scale back
- Single instance-to-RAC conversion
- Facilitates Real Application Testing (RAT) setup
- Bare metal OS provisioning
- CLI driven runtime
- Support for secure authentication like SUDO and PAM
- Provisioning and Patch deployment reports

BENEFITS

- Standardized software deployment processes reducing operational risks
- Out-of-box best practices lower cost of deployment
- Mass scale operations increase operational efficiency
- Increased Availability through Integrated Systems and Support
- Single console to manage your IT environment and support experience

The Oracle Provisioning and Patch Automation Pack for Oracle Database automates the deployment of software, applications, and patches. It provides the ability to provision the entire software stack including the operating system, database along with comprehensive reporting tools making the Provisioning and Patch Automation Pack a key component in the overall Database Management space. These capabilities are critical to making data center operations easy, efficient and scalable resulting in lower operational risk and cost of ownership

The salient features of the Pack are described in brief below.

End-to-End Patching of Oracle Products

Oracle Enterprise Manager includes an end-to-end patching solution that works seamlessly across a wide range of products and customer environments. The patching application automates the deployment of Oracle patches for the database (including Clusterware, Grid Infrastructure, Real Application Cluster and Automatic Storage Management) and the underlying operating system. The application takes care of pre and post patching steps such as shutdown and startup of services, and dictionary changes, if required.

The patching application leverages the flexible Deployment Procedure framework, that lets users add custom steps for specific actions within the patching process. Users can patch hundreds of databases concurrently in one single downtime window and are automatically notified upon completion of process.

Patching of Operating Systems

Enterprise Manager provides a comprehensive patching solution for popular operating systems like Linux, Windows and Solaris. Enterprise Manager integrates with Unbreakable Linux Network (ULN) to provide periodic automatic updates for Linux hosts. Users can visualize compliance information and ensure that any critical Linux patches released by Oracle are automatically applied. Several Linux hosts can be grouped together and patched at once making the process completely lights out. Users can also define custom channels and configuration file channels to update custom rpms and configuration files on hosts. Errata or advisory information for Packages is also available

Database and Operating System Provisioning

The philosophy of grid computing centers on the ability to deploy and reassign hardware and software resources quickly and efficiently and make them operational.

Enterprise Manager includes the functionality of bare metal provisioning of Linux operating system through a standardized PXE (Preboot Execution Environment) booting process. It also facilitates delivery of additional software on top of the operating system. As a part of this process, administrators can associate images with specific hardware and storage templates to cover the variety of hardware population. The provisioning process also registers the server as a target in Enterprise Manager, so that it can be managed henceforth.

Enterprise Manager comes with out-of-box Deployment Procedures to provision the Oracle Database (both Single Instance Database and RAC), Oracle Grid Infrastructure, Oracle Clusterware and Oracle Automatic Storage Management from gold images following the best practices for maximum availability. The “gold images” are tested and approved software images and can be patched to any level before deployment. The provisioning procedures automate the end to end provisioning operations of the products (including multi-tier installations) and configure storage, networking in the process. These operations could otherwise be time-consuming and error prone. The procedures can use pre-created gold images or live reference installations as a source for the provisioning operations.

Through Enterprise Manager users can also provision Real Application Clusters and configure the associated grid disks on the Sun Oracle Database Machines.

Enterprise Manager also facilitates the setting up of Disaster Recovery (DR) systems. Using a simple wizard driven approach one can setup Physical or Logical Standby environments.

Complete Lifecycle Management

The provisioning features of Oracle Provisioning and Patch Automation Pack can be used to achieve complete automation of Software Lifecycle such as promotion from test to production environments. This can be utilized to establish test environments to be used for Real Application Testing.

Cluster Scale Out and Scale Back

To address the growing business demands, modern data centers require the ability to augment and relocate resources quickly and efficiently and make them operational. The core foundation of Oracle’s Grid architecture lies in scaling out the cluster in a fleet-footed manner. Through Enterprise Manager one can add or drop a node of RAC with a single click. All the complexities of provisioning and configuring the agent, Clusterware, Grid Infrastructure, storage, network and the database software are automated and hidden from the end user.

Oracle Provisioning and Patch Automation Pack also has the ability to convert a single instance non-RAC database to a multi-node RAC database. Using a wizard driven interface the administrator is guided through the process. An easy workflow makes this job easy and convenient for administrators.

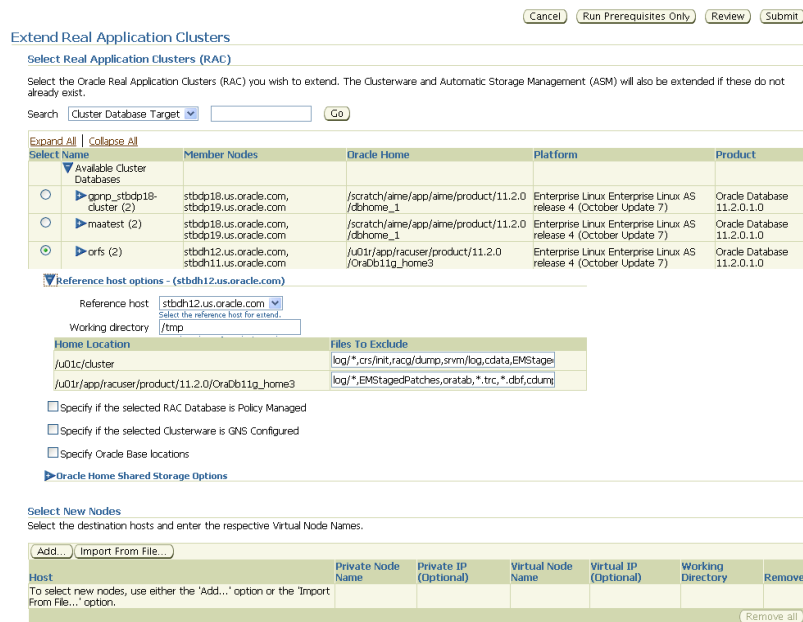


Figure 1: Extending RAC cluster with single click

This figure shows the procedure for extending a RAC cluster with a single click

My Oracle Support and Enterprise Manager Integration

My Oracle Support is now integrated with Enterprise Manager; this integration provides system administrators with a single console that personalizes their support experience along with seamless management of their IT environments.

Through this integration users receive, comprehensive patch recommendations, ability to create patching plans for organizing rollouts, validations for conflicts, ability to download an existing merged patch or request a new merged patch and directly automate the deployment of the patches.

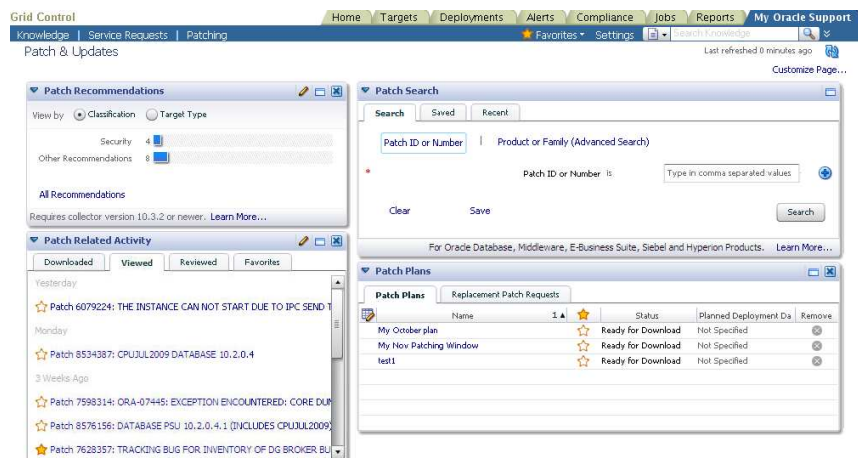


Figure 2: My Oracle Support Integration with Enterprise Manager

Through the My Oracle Support Integration with Enterprise Manager, users have access

to Community forums making visible customer inputs on patches along with the number of times a specific patch has been downloaded.

Patch Recommendation provides a single view to all Security and Recommended patches that should be deployed across your environment.

Patch plans enable accumulation of multiple patches and affected targets, check for conflicts and integrate with Deployment Procedures to automate the deployments.

Create Plan Wizard - JAN_PATCH_ROLLOUT

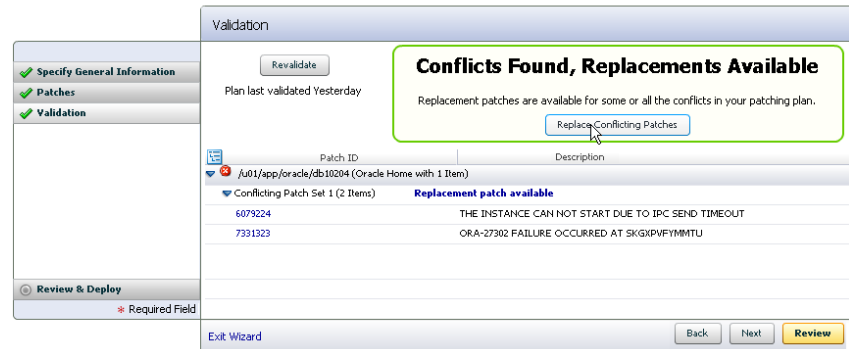


Figure 3: Patch Conflict Validation and Single Click Merge Request Process

Users via automated patch conflict validation can download existing merged patches or request for a new merge patch all through single integrated console.

Conclusion

The essence of the Oracle Enterprise Manager Provisioning and Patch Automation Pack lies in reducing manual labor, especially tedious and error prone tasks, while creating standard software environments that can be managed in a scalable manner. With the rich set of features, it has become an important element in automating operations around database within the data center.

An independent research study found that customers using the Provisioning and Patch Automation Pack can help organizations achieve a positive 124% return on investment (ROI) with a payback period of 15 months. For more details access, [The Total Economic Impact™ Of Oracle Enterprise Manager Configuration Management Pack And Provisioning And Patch Automation Pack](#) by Forrester research on Oracle.com

Contact Us

For more information about Oracle Enterprise Manager Provisioning and Patch Automation Pack, please visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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