MANAGEMENT PACK FOR LINUX

ORACLE ENTERPRISE MANAGER 11g

KEY BENEFITS

- Bare-metal provisioning of Linux servers;
- Detailed configuration information collection and analysis;
- Lights-out and Ad Hoc Linux Operating System Patching;
- Out-of-box availability and performance monitoring;
- Advanced monitoring and event management features:
- Blackouts
- Corrective Actions
- Notifications
- User-defined metrics
- Monitoring Templates
- Dashboards
- Centralized Linux server administration

Available exclusively as part of the Oracle Unbreakable Linux support program, the Oracle Management Pack for Linux provides an integrated and cost-effective solution for complete Linux server lifecycle management. Based on Oracle Enterprise Manager 11g, the Oracle Management Pack for Linux delivers comprehensive provisioning, patching, monitoring, and administration capabilities via a single, web-based user interface–the Enterprise Manager Console, significantly reducing the complexity and cost associated with managing Linux operating system environments.

Linux Operating System Patching

Oracle Management Pack for Linux provides the "Patch Linux Hosts" facility to help administrators keep their Linux servers up to date with vital software updates published on ULN.

Patch Linux Hosts uses a reference-based grouped patching model, where administrators can create one or more reference package repositories containing up-to-date versions of various packages, and associate a group of Linux servers with these package repositories. The Patch Linux Hosts tool uses package repositories to patch the servers as well as to monitor the deviation of the packages installed on the servers (supports both YUM and up2date). Administrators can create different groups, such as development and production groups, associate one or more package repositories with each group, control when and how often the servers in the group should be updated, and specify how server compliance with respect to the package repositories should be calculated.

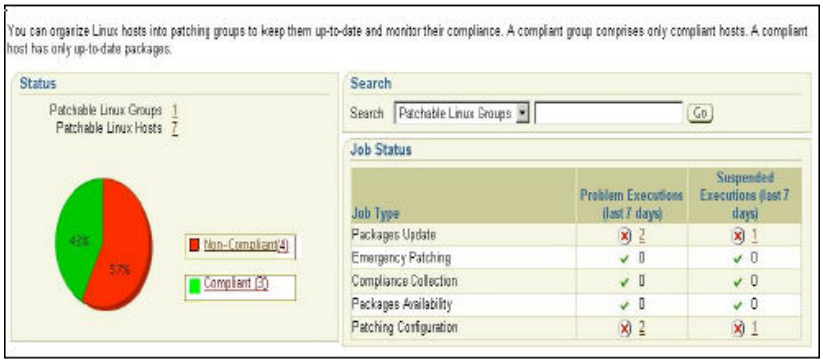

Figure 1: Enterprise-level compliance view of Linux Operating System patching.

To enable prompt response to critical bugs and security alerts, Oracle Management

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Pack for Linux provides the option of performing ad-hoc or emergency updates outside of the established schedule. In addition, administrators have the flexibility to roll back software to its previous stable version.

Oracle Management Pack for Linux provides detailed compliance information for each group, including the number of servers in a group that are in compliance, as well as the number of "rogue" packages on a particular server. The patching facility is supplemented by a rich set of reports on compliance and remediation.

Bare-Metal Provisioning

To assist administrators in rapidly deploying Linux servers, the Oracle Management Pack for Linux provides "bare-metal" provisioning of the Linux operating system using a standardized PXE booting process. The provisioning process is template-based and can assign hardware profiles, storage layouts, and network configurations to the new machines. In addition, administrators can integrate vendor-provided scripts to provision third-party hardware, such as storage disks and load balancers.

The provisioning application can be used to define a default image of the minimum set of software packages required to provision a bare-metal server. The image can also be derived from a reference server that is patched with the latest rpms downloaded from the Unbreakable Linux Network (ULN) and can be installed on any new machine that boots over the network. The provisioning application uses the Enterprise Manager Grid Control Job System to stage the default image onto the staging server in preparation for installation. When a new machine is plugged in and the network booted, the boot server directs the machine to install the specified default image from the staging server. The provisioning process also deploys a Management Agent to the new server so that it can be managed from the Enterprise Manager Console.

Configuration Management

Tracking configurations is one of the most time-consuming and difficult tasks administrators face on a daily basis. Being able to quickly view a detailed configuration snapshot, analyze historical changes, and enforce standardization between systems is key to diagnostics, auditing, compliance, and making solid business decisions.

Oracle Management Pack for Linux simplifies these tasks by automatically collecting detailed configuration information about Linux servers, including: Operating Systems details (such as Name, Version, Software and Package Lists, Kernel Parameters, and File Systems information) and Hardware details (such as Vendor, Architecture, CPU and I/O device information). All changes to the server baseline configuration are automatically tracked and audited, helping administrators answer key questions about what changed and when the change was made. By enabling enterprise-wide comparisons of Linux servers, the Oracle Management Pack for Linux allows administrators to quickly and easily detect configuration differences. This helps to keep systems synchronized and to reduce “configuration drift”. In addition, server configurations are automatically evaluated against configuration policies and violations are flagged, ensuring compliance with

corporate standards.

Linux Server Monitoring

As soon as a Management Agent is deployed to the Linux server, Oracle Management Pack for Linux automatically starts collecting comprehensive availability and performance information with pre-defined thresholds, immediately alerting administrators of potential problems. This allows administrators to derive instant value, while giving them the flexibility to fine-tune thresholds according to their specific operational requirements. Among the more than one hundred and twenty metrics collected, some of the key performance parameters monitored include: CPU Utilization, Memory Utilization, Disk I/O, and Top Processes. To enable administrators to customize Linux server monitoring to the applications running on that server, Oracle Management Pack for Linux provides the ability to monitor application log files, resource consumption of specific programs, and size and growth rate of application files and directories.

In addition to real-time monitoring, all of the collected information is also stored in the management repository, thereby enabling administrators to analyze performance through various historical views and facilitating strategic tasks such as trend analysis and reporting.

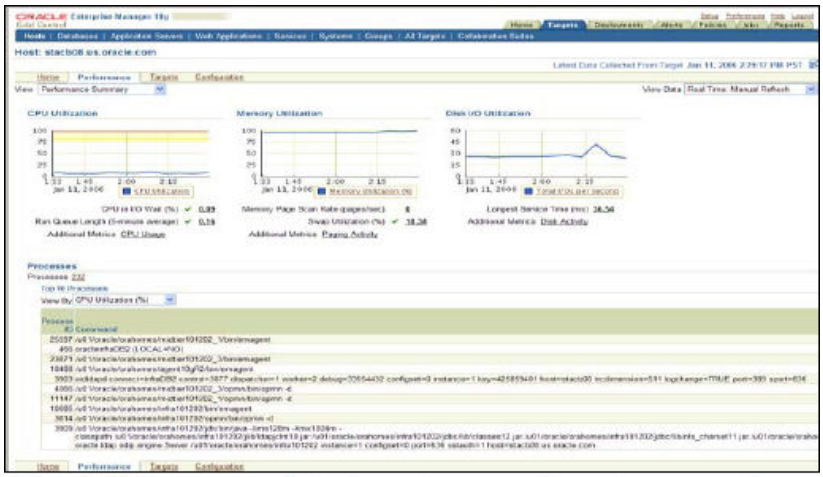

Figure 2: Performance page displays key performance statistics and top processes for a Linux server.

Oracle Management Pack for Linux also leverages Oracle Enterprise Manager's full suite of monitoring and event management features for Linux operating system monitoring, delivering a powerful monitoring solution through automation, standardization and "manage many-as-one" approach. Some of the key monitoring features include: Alerts, Notifications, Blackouts (planned outages), User-defined Metrics, Corrective Actions, Groups and Systems, and Monitoring Templates.

Storage Resource Utilization Monitoring

Tracking storage resource allocation and usage is essential to large IT departments, as unallocated and underutilized storage can then be put to better use. In addition,

enterprises need to understand historical trends at a business entity-level in order to effectively plan for future growth. Oracle Management Pack for Linux presents comprehensive storage information for Linux servers, at the individual server and group levels. Detailed Storage Reports summarize storage utilization, provisioning and consumption across different storage layers (such as Disks, Volumes, Oracle Automated Storage Management managed data, File Systems and Databases). In addition, historical storage usage is presented, enabling administrators to analyze trends and predict future storage needs.

Linux Server Administration

Oracle Management Pack for Linux significantly simplifies the error-prone and time-consuming server setup tasks, by providing the following Linux server administration capabilities:

• **System Services Administration**: Capability to start/stop services, configure services to run at boot time, and assign services to runlevels;

• **Network Setup**: NFS Client configuration, network card configuration, view and edit host lookup table (/etc/hosts file);

• **Remote OS Command Execution**: Remotely run OS commands on a single server or a group of servers;

• **Remote File Editor**: Securely edit server files;

• **Job System**: Capability to run scheduled jobs on a server or across a set of servers.

Oracle Management Pack for Linux: Integrated Management

Oracle Management Pack for Linux provides an enterprise-class Linux management solution for Oracle Unbreakable Linux customers. In addition, the pack works in conjunction with Oracle Enterprise Manager's complete solution, enabling world-class system management that is integrated for top-down application management including service level management, change and configuration management, application performance management, and infrastructure automation.

Contact Us

For more information about Management Pack for Linux, please visit oracle.com/linux or call +1.800.ORACLE1 to speak to an Oracle representative.

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