

# ORACLE OPS CENTER: PROVISIONING AND PATCH AUTOMATION PACK



## KEY FEATURES

### PROVISION FROM BARE-METAL TO PRODUCTION QUICKLY AND EFFICIENTLY

- Controlled discovery with active control of your hardware
- Automatically download firmware and deploy in one touch
- Connect isolated tasks in a consistent workflow under a single installation plan

### DEEP INFRASTRUCTURE MONITORING WITH SERVICE INTEGRATION

- Combine in band and out of band telemetry sources
- Complete awareness of all layers from fabric to storage to cluster to server. All layers.
- View My Oracle Support contract information for hardware assets and gain the ability to fast track Service Requests

### HETEROGENEOUS PATCH MANAGEMENT MADE SIMPLE

- Seamless integration with Enterprise Manager Application Patching
- Powerful Oracle minded metadata from a knowledgebase on popular heterogeneous vendor patches
- Multistate rollback, configuration comparisons
- Operational compliance enforcement and reporting

*Oracle Enterprise Manager Ops Center Provisioning and Patch Automation Pack offers a holistic approach to Oracle infrastructure management, allowing IT administrators to actively manage and monitor all layers of their compute resources from virtually anywhere on the network. From a single console, monitor Infiniband Fabrics or ZFS Appliances and see how they relate to server, cluster, or Operating System telemetry. Simplify the patch management of Oracle Solaris, popular distributions of Linux, and Windows using an advanced knowledgebase while enabling automated lifecycle processes.*

### Controlled Discovery of the Complete Solution

Business solutions span all layers of the datacenter and Ops Center offers discovers the most important components. Operating systems, physical servers, network storage, fabric devices, and virtual resources automatically come into focus. Ops Center finds the relationships and helps administrator correlate the telemetry. Define smart group characteristics and Ops Center will dynamically sort the environment. Leverage the Ops Center integration with Enterprise Manager Grid Control and automatically discover all Oracle application within this complete picture. Whether it is a new server investment or an existing environment, discover today how Ops Center drives datacenter efficiencies.

### Increased Workflow Automation

For the first time, an administrator can cable a server in a rack and have Ops Center perform all the required steps needs to insure a production ready asset in one, single, named plan. Let Ops Center assign you ipaddress to MAC pairing after DHCP discovery. Have it change the root password on the service processor and configure the network setting. Ops Center will automatically show the latest available firmware for the server and install it. Next, have the same plan configure M-Series hardware domains. Install operating systems based on custom profiles. Update the RAID controller and local disk drive firmware. Deploy software production standards and patch updates. Set monitoring actions and thresholds. Complex plans for complex systems made simple with Ops Center.

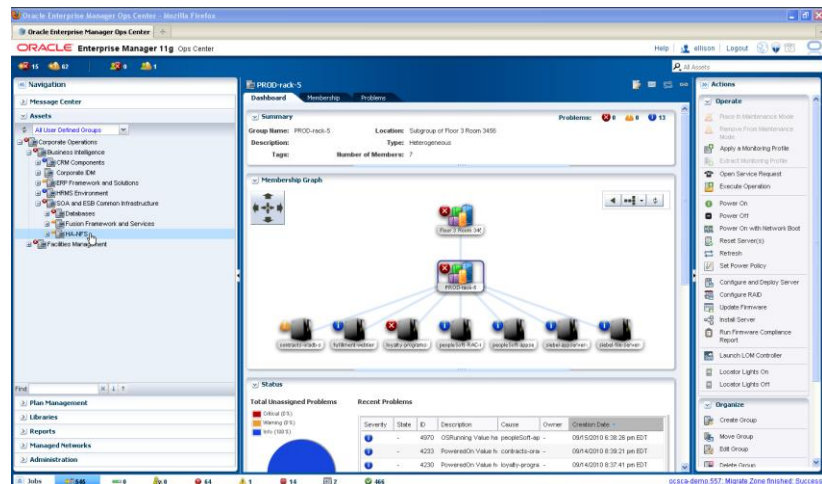
### Productive and Proactive Administrative Staff

Ops Center is specifically tailored to help administrative staff unburden themselves

with the mundane tasks associated with owning hardware and frees them to work on projects that can help transform IT from a cost center to a profit center. Ops Center's out of the box knowledge of Oracle hardware, operating system software dependencies, and virtualization technologies supplies the assistance where administrators need it the most. This allows the business to leverage IT skill sets across functional units more efficiently.

### Rapid Deployment

Ops Center offers automated access to datacenter firmware and operating system software. It supplies the metadata for each patch, image, package, or RPM so administrator do not have to spend time building a knowledge base before provisioning. Capture in a central location under Ops Center's control all the custom kickstart, jumpstart, and YAST configurations. Import iso and flar images into the software repository. Control post provisioning activities such as compliance. Create a snapshot of a software catalog and restore an operating system to a previous state. Compare inventories of multiple systems and make target systems match source inventories. This process can be applied to a single system, multiple systems, or multiple datacenters. Bring IT investments into production faster while maintaining quality and consistency.



**Oracle Enterprise Manager Ops Center delivers the tools and insight required to run an efficient datacenter with production level business service demands.**

### Fault and Event Management with Support Service Integration

Experience a single Message Center that houses fault information about all layers of your hardware solution. View faults from storage appliances, network device, blades, chassis, rack mounts, multi-processor board systems, Oracle Solaris Cluster, OVM SPARC, Oracle Solaris Containers, and operating systems from a single location. Leverage life cycle control of problem workflow. Individual and related alerts are consolidated under larger problems. Assign problems to administrators with custom messages. Declare pre-defined annotations for alert types to better establish operational responses. View problem reports and category distributions to understand trends across the environment. Ops Center offers these features while pulling out the most in-depth fault information on the largest population of Oracle

hardware solutions. Ops Center automatically maintains the pairings of registered hardware assets to My Oracle Support user ids. Not only can Ops Center display support contract information, but it can also act as the fastest way to turn fault and event telemetry into a My Oracle Support Service Request. With a click of a button, Oracle can be involved in helping solve any problem that finds its way to the Ops Center Message Center.

### **Operational Insight**

Oracle Enterprise Manager Ops Center's rich UI and functionality presents information based on user definitions. Monitored information can be presented at a per-system/per-virtual resource level or can be aggregated across a group of servers or virtual pools. Historical information for a variety of operating system performance parameters such as can be monitored and stored for future reference. Moreover, any and all gathered data can be exported for further analysis or to create custom reports. See correlations between zoned workloads. Check out the error rate on a network device on a specific port. Let Ops Center show the relationship between fan speed, in/out temperature, utilization, and dollars per kWh. Ops Center presents a real time look at the health of the environment while offering historical trending when needed.

### **Automated Patching Using a Unique Knowledgebase**

Oracle's Knowledge Services is a hosted metadata knowledgebase of Oracle Solaris, Oracle Linux, Red Hat, and SuSE operating systems. This knowledgebase is a very powerful capability unique to Oracle. It is served down to customers through a web service or in a disconnected mode. Leveraging the knowledgebase metadata improves patch accuracy and reduces downtime. It maintains advanced patch, rpm, and package dependency information that has been discovered through unique methods exclusively owned by Oracle. Ops Center uses this knowledgebase to download only the required patches the first time (not all new patches)—saving both network bandwidth and compute resources. It applies those patches and performs appropriate actions (single/multiuser mode, reboot option) as required.

### **Reduced Downtime**

Oracle Enterprise Manager Ops Center helps system administrators meet their maintenance windows in three ways. Leveraging its unique knowledgebase, the product first examines the installed software to see if any broken dependencies exist. Next it searches against vendor bugs, Common Vulnerability databases, or customer profiles to discover if updates are needed. With every action, it automatically takes snapshots of the inventory on the box in case rollbacks or time comparisons are needed. It automatically resolves required patch trees and groups them correctly during patch installation to insure the lowest time spent in single user mode. Lastly, it will cache patch payloads on the agents and simulate installation to insure the operating system commands and directories are healthy enough to install additional software. Now the platform can be reliably patched with a higher level of confidence that nothing will go wrong. Ops Center will also automatically discover Oracle Solaris Live Upgrade alternate boot environments and display them for selection during patching allowing for zero downtime patching. Ops Center also

controls the upgrade of Oracle Solaris Clusters. It will allow for partition and failover policy selection. It displays the characteristics and job function of the cluster and maintains a mapping of all the nodes. During operating system provisioning, Ops Center allows users to establish multiple data paths to the network interfaces on the box via IP multipathing, link aggregation, and VLAN tagging. Ops Center helps users leverage the underlying RAS features in the individual technologies at an enterprise layer.

### **Comprehensive Compliance**

Multiple compliance reports are possible with Ops Center. Compare all the servers against a business project's requirements. Compare against an older vendor provided baseline or always test against the latest information from the vendor. Test against a government approved common vulnerability database. Continuously schedule reports to help discover the server sprawl across the datacenter. Compare servers to one another or compare previous snapshots of the same server. Report who installed or de-installed what, when, and where via Ops Center. Rest assured that any compliance violation can quickly be addressed on demand. View reports on problems or alerts. Ask the environment questions regarding the field replaceable units such as power supplies, fans, or CPUs. Ops Center offers a wide variety of reports that help operations meet any regulatory standard.

### **Feature Summary**

#### **Provisioning and Patch Automation Management Pack**

- Life Cycle Management of Physical Machines, ZFS Appliances, Infiniband Devices, Operating Systems, and Oracle Solaris Cluster
- M-Series Domain Management
- Discovery and Topology Management
- Fault Monitoring and My Oracle Support Integration
- Firmware Automation at system and FRU level
- Operating System Bare Metal Provisioning
- Operating System Performance Monitoring
- Patch Automation
- Access to the Enhanced Dependency Engine from Oracle
- Configuration and Compliance Reporting
- Energy Awareness and Management

### **Technical Specifications**

#### **Managed Servers**

- All Integrated Lights Out Manager-based Sun servers
- SPARC Enterprise M3000, M4000, M5000, M8000, M9000 servers
- Advanced Lights Out Manager, Embedded Lights Out Manager-based Sun servers
- Sun ZFS Storage Appliances
- Sun Infiniband Devices

#### **Supported Operating System**

All the managed servers above can be provisioned with the following operating systems:

- Oracle Solaris SPARC 8, Oracle Solaris SPARC 9, Oracle Solaris SPARC 10
- Oracle Solaris x64/x86 9/10
- Oracle Linux 5.3 and higher
- RHEL 3/4/5
- SLES 9/10/11

All above mentioned operating systems can be patch managed regardless of the underlying hardware. In addition, Windows 2003 can be patch managed via a seamless integration with Microsoft System Center Configuration Manager.

Check Oracle Enterprise Manager Ops Center documentation for the complete list of supported systems.

### Warranty

Visit [oracle.com/sun/warranty](http://oracle.com/sun/warranty) for Oracle's global warranty support information on Sun products.

### Services

Visit [oracle.com/sun/services](http://oracle.com/sun/services) for information on Oracle's service program offerings for Sun products.

### Contact Us

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