

# SYSTEM MONITORING PLUG-IN FOR EMC SYMMETRIX SYSTEM



## SYSTEM MONITORING PLUG-IN FOR EMC SYMMETRIX SYSTEM DELIVERS:

- Pinpoint storage related performance problems rapidly
- Navigate from data file to host volume to storage device
- Proactively respond to problems by using the metric thresholds
- Optimize storage allocation by tracking storage usage by databases

## BENEFITS:

- Consolidate all of the information about your Oracle and EMC storage environment in the Grid Control Console
- Correlate availability and performance problems across entire set of IT components
- Enhance service modeling and perform comprehensive root cause analysis
- Increase operational efficiencies

*Oracle Enterprise Manager System Monitoring Plug-in for EMC Symmetrix System delivers a comprehensive solution for storage administrators and database administrators to monitor EMC Symmetrix storage systems.*

*Enterprise Manager Grid Control provides an integrated view of storage systems in conjunction with databases to allow administrators to pinpoint performance problems, track storage usage and configure their enterprise storage for optimum database performance.*

### Monitoring your EMC Symmetrix System

Many enterprises have selected EMC Symmetrix System as their storage of choice to run their mission-critical applications on them. Monitoring the health and performance of storage in conjunction with their enterprise database applications is therefore an absolute requirement. The System Monitoring Plug-in for EMC Symmetrix System monitors the availability as well as performance of all key subsystems in the EMC Symmetrix System, including Frontend Director, Disk Director, hyper volumes and meta devices. With over 40 out-of-the-box metrics, Enterprise Manager Grid Control makes it easy for administrators to get alerted when key performance thresholds are exceeded.

The System Monitoring plug-in is integrated with EMC Solutions Enabler that allows all errors or warning conditions, reported on the EMC Symmetrix System, to be elevated to administrators using the easy-to-use Enterprise Manager web user interface.

### Optimizing Oracle Databases for EMC Symmetrix

Administrators that manage databases and storage systems have usually relied on separate tools to perform domain-specific tasks. However, these management tools are limited in that they are not able to provide information or perform tasks that cross-administrative domains. The System Monitoring Plug-in for EMC Symmetrix has been specifically designed to help storage administrators and database administrators collaborate on tasks such as capacity planning, performance root cause analysis and optimizing storage configurations for databases by providing an integrated view of storage and databases.

### Database Storage Usage

Storage administrators configure the EMC Symmetrix System for different levels of storage capacity and performance based on their requirements. To be able make these decisions, the administrators need to have visibility into the current usage and growth of Oracle databases. The System Monitoring plug-in provides out-of-the-box reports for all databases that are currently hosted on the EMC Symmetrix System. The Plug-in is designed for cross-platform hosts; thus, administrators can get a single view of storage usage for all databases, single

instance or Real Application Cluster databases, regardless of the operating system of the host on which the Oracle databases are running. In addition, the plug-in gives you an at-a-glance view of the top 5 databases consuming the most EMC Symmetrix storage.

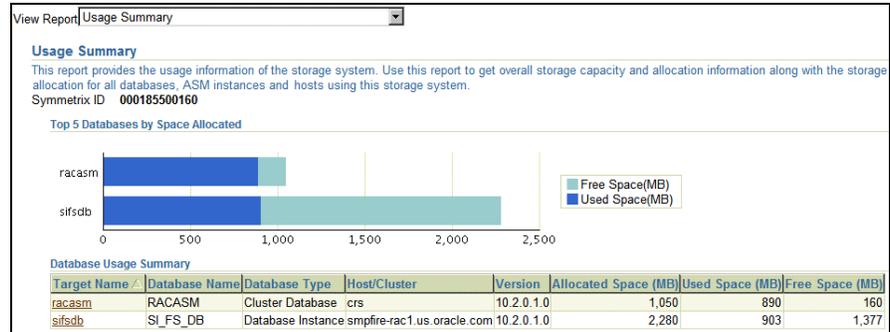


Figure 1: Database storage usage summary

**Configuration & performance of hyper volumes and meta devices**

Storage administrators have a lot of flexibility in configuring their EMC Symmetrix system to create hyper volumes and meta devices. They however have very little visibility into the configuration of Oracle databases and how they are laid out on across the various hyper volumes or meta devices. The System Monitoring plug-in addresses this issue by providing both database administrators and storage administrators with detailed Database Files to Storage device mapping reports and vice versa to allow them to rapidly identify device hotspots and find the affected database data files.



Figure 2: Frontend Director Performance Statistics

The System Monitoring Plug-in includes out of the box performance monitoring for the Frontend Director, Frontend Port, Disk Director, storage device as well as disk performance statistics. With the full range of performance reports, an administrator can rapidly navigate from the host volume to the storage device to identify devices that may be contributing to slow database performance.

### Leverage the Enterprise Manager Grid Control management framework

Oracle Enterprise Manager Grid Control provides administrators with a consolidated view of the enterprise systems, including databases, hosts and storage systems. The System Monitoring Plug-in for EMC Symmetrix System leverage Enterprise Manager Grid Control's powerful management capabilities to provide robust monitoring, rapid fault diagnostic and manage-many-as-one automation capabilities. Key features include:

- **Topology view:** By mapping relationships between databases, hosts or clusters and storage systems, administrators can get a whole system view of the entire application infrastructure and can zoom in on problem components.

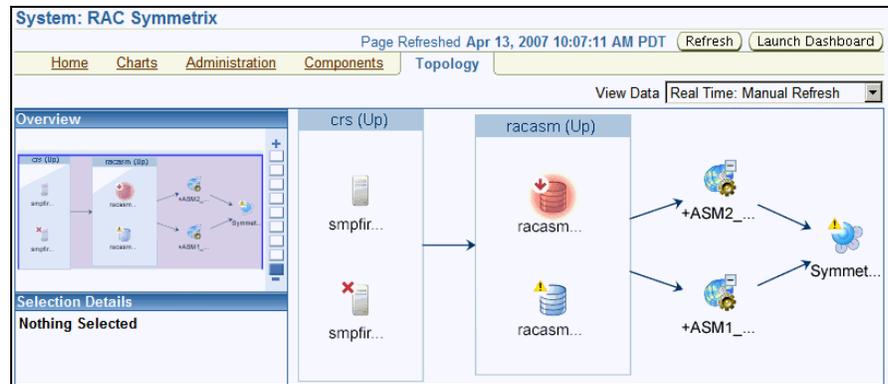


Figure 3: Topology view of RAC database, cluster and storage systems

- **Blackout periods:** Eliminates unnecessary alerts from being raised during scheduled maintenance period, e.g. patching the microcode.
- **Monitoring templates:** Simplifies and standardizes the monitoring settings for EMC Symmetrix Systems by allowing the administrators to set the monitoring settings once and applying them across the enterprise.
- **User defined metrics:** Allow administrators to collect and monitor parameters specific to their data center environment.
- **Roles, Notification Rules, Methods and Schedules:** defines which, when and how administrators should be notified about critical problems with their systems ensure quicker problem resolution by the appropriate administrators.
- **Corrective actions:** Ensures that routine responses to alerts are automatically executed, thereby saving administrators time and enabling problems to be dealt with proactively before they impact users.
- **Groups and Systems:** Significantly reduce the burden of managing large number of components, whether they are storage systems, databases or application servers, using groups and systems. By combining EMC Symmetrix Storage Systems in groups or associating them with other data center components, such as hosts, databases, etc., administrators can proactively monitor availability and alerts using the dashboard.

### Complete monitoring of enterprise components using Enterprise Manager

Oracle Enterprise Manager Grid Control is very simply the most complete management

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solution for Oracle and non-Oracle components in enterprise data centers. The System Monitoring Plug-in for EMC Symmetrix is an integral piece of the monitoring capabilities of Enterprise Manager Grid Control. By leveraging the management capabilities of Enterprise Manager, administrators can simplify the tasks of managing storage systems that support enterprise database applications, optimize the storage usage and deliver higher uptime and performance for end users.

Related Products:

- 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 <http://www.oracle.com/enterprise-manager>.

**Learn More**

For more information about this and other Oracle Management Connectors, visit <http://www.oracle.com/technology/products/oem/extensions/index.html>

*To learn more about Oracle Enterprise Manager 11<sup>g</sup>, visit [www.oracle.com/enterprise\\_manager](http://www.oracle.com/enterprise_manager)*

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