MANAGEMENT PACK FOR NON-ORACLE MIDDLEWARE

Oracle Enterprise Manager is Oracle’s integrated enterprise IT management product line, and provides the industry’s first complete cloud lifecycle management solution. Oracle Enterprise Manager’s Business-Driven IT Management capabilities allow you to quickly set up, manage and support enterprise clouds and traditional Oracle IT environments from applications to disk. Enterprise Manager allows customers to achieve the best service levels for traditional and cloud applications through management from a business perspective in order to provide maximum return on IT management investment through the best solutions for intelligent management of the Oracle stack and engineered systems and gain unmatched customer support experience through real-time integration of Oracle’s knowledgebase with each customer environment.

Management Pack for Non-Oracle Middleware is a comprehensive management pack for monitoring Java applications running in application server environments. Everything from wizard-driven discovery which provides high-level JMX metrics out of the box to deep dive JVM diagnostics is at an operation team’s fingertips with Enterprise Manager Cloud Control. The end result is better ROI across the entire stack from the front-end requests to the calls to the back-end database with root cause analysis and high-level monitoring dashboards that provide visibility at all levels within the middleware stack.

Figure 1. Websphere Cell homepage

Discovery and Monitoring

Wizard-driven discovery of application server environment including clusters and other application components provides the following benefits instantly.
- Availability, Performance, load and usage metrics monitoring
- Monitor many-as-one using uniform modeling of Application Server entities
- Extensible monitoring of Application metrics exposed through JMX or Web Services
- Robust event monitoring using metric thresholds, events, notifications, and corrective actions

The Management Pack for Non-Oracle Middleware helps IT organizations achieve high availability, performance, and optimized service levels for their business services. The pack actively monitors and reports on the availability and performance of services - including a variety of end-user business functions.

**Problem Analysis and Monitoring Extensions**

Monitoring and diagnostics capabilities have been greatly enhanced for Websphere and JBoss Application Server. Websphere PMI is used to collect WAS metrics, while for JBoss EM is now using JMX. This provides flexibility to add JMX based Metric Extensions to enhance the out-of-box metrics. A Problem Analysis feature allows user to nail down performance bottlenecks using correlated metrics.

**Real-time Performance Diagnostics for Java Virtual Machine**

The Non-Oracle management pack includes JVM Diagnostics. This feature provides deep analysis of the JVM. Once configured via a simple deployment mechanism that doesn’t even require the restart of the monitored application server, CPU, I/O, garbage collection, heap memory, and thread analysis is immediately available in both real-time and historical view. Monitoring is provided 24x7 with extremely low overhead (less than 1%). Thresholds can be set on key metrics such as CPU, I/O, memory utilization and thread waits (database, file, network, and lock wait states) allowing notifications to be event-driven. In addition, administrators are able trace one or more active threads to view stack progression over a period of time. Trace details show how each method is spending its time in waiting for resources.

For example, one of the major and often common conflicts between application administrators and database administrators is related to isolating problems between the database or application server tiers. Using JVM Diagnostics, administrators can trace request activity in a particular JVM or pool of JVMs to the corresponding database session activity and vice-versa. Administrators can easily identify the SQL calls that are causing the performance problems.
and correlate them with the underlying sessions. Alternatively, Database Administrators can view all the database sessions, identify the session related to the performance problems, and trace it back to the Java thread allowing them to quickly pinpoint the problem in production and test environments.

![ORACLE Enterprise Manager](image)

Figure 3. Deep visibility into JVM runtime

**System and Service Management**

Oracle Enterprise Manager allows administrators to easily monitor their entire infrastructure from end to end by providing system and service management. Systems can be created to represent a composite application comprised of multiple tiers of middleware as well as the databases and the hosts. These systems are then monitored from a single dashboard to provide complete visibility of the health of the system.

Using service tests and synthetic transactions executed from remote user locations, businesses can monitor services from the end users’ perspective providing administrators with the global perspective on application health, and its correlation to the underlying IT infrastructure. In addition, the pack assesses the business impact of any service problem or failure, and indicates whether service level goals have been met.

**Configuration Management**

IT organizations typically need to keep track of configuration files for various compliance reasons. It also helps in diagnosing some of the performance issues which could be related to poor configuration. Oracle Enterprise Manager’s configuration management solution gives administrators ability to select configuration files and keep track of the changes. Traditionally the IT organizations relied on manual efforts to collect and save configuration changes over a period of time. Oracle Enterprise Manager reduces the cost of ownership by providing single console visibility for configuration. Oracle Enterprise Manager provides out-of-box parsers for well known file formats such as .xml, .properties, etc.
Contact Us
For more information about Management Pack for Non-Oracle Middleware, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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