



Oracle SOA Management Pack Enterprise Edition

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 best service levels for traditional and cloud applications through management from a business perspective including for Oracle Fusion Applications, 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.

FUSION MIDDLEWARE MANAGEMENT

Oracle Enterprise Manager's Fusion Middleware Management solutions provide full-lifecycle management for Oracle WebLogic, SOA suite, Coherence, Identity Management, WebCenter, and Oracle Business Intelligence Enterprise Edition. Oracle Enterprise Manager provides a single console to manage these assets from a



*MANAGEMENT FOR ORACLE SOA SUITE
AND ORACLE SERVICE BUS
APPLICATIONS*

KEY FEATURES

Track and monitor end-to-end business transactions across tiers

Monitor the performance of Oracle SOA Suite and Service Bus

Integrated web service testing and synthetic transaction monitoring

Integrated authoring, attachment, and monitoring of security policies

Collection and analysis of SOA configuration information

Automated provisioning of Oracle SOA Suite and Service Bus

Seamless Lift and Shift of SOA Domains and composites to Oracle Cloud.

business and service perspective, including user experience management, change and configuration management, patching, provisioning, testing, performance management, business transaction management and automatic tuning for these diverse environments.

SOA MANAGEMENT

Understanding complex service dependencies, monitoring consumer expectations, and controlling service ownership costs are the biggest barriers to effectively managing service-oriented architecture (SOA) applications and infrastructure. To overcome these challenges, administrators need solutions that increase service visibility and production assurance while lowering the cost and complexity of managing SOA environments. Oracle SOA Management Pack Enterprise Edition provides runtime governance as well as comprehensive service and infrastructure management functionality to help organizations maximize the return on investment from their SOA initiatives.

AUTOMATE SOA SERVICE AND TRANSACTION MANAGEMENT

Oracle SOA Management Pack Enterprise Edition provides administrators with a consolidated browser-based view of the entire SOA environment, enabling them to monitor and manage all their components from a central location. This streamlines the correlation of availability and performance problems for all components across the SOA environment. Oracle Enterprise Manager integrates with the Oracle Fusion Middleware Control, Oracle Service Bus console, and Oracle Business Activity Monitoring. With a rich set of service and system-level dashboards, administrators can view service levels for key web services, SOA composites, Oracle Service Bus proxy and business services, as well as SOA infrastructure components.

KEY BENEFITS

- Provides visibility into complex SOA orchestrations across the enterprise
- Minimizes the cost of setting up and maintaining performance monitoring
- Reduces the effort associated with manual application deployment
- Dramatically improves the ability to keep up with environmental changes
- Significantly lowers the total cost of ownership for SOA
- Significantly reduces time required to move SOA and OSB assets to Oracle Cloud.
- Single Pane of Glass to monitor and manage assets across clouds.



Figure 1. Service Bus and SOA Composites Heat Map

Oracle Enterprise Manager allows you to manage your Oracle SOA Suite applications leveraging a model-driven “top-down” approach within your development, quality assurance (QA), staging, and production environments. Business application owners and operational staff can automatically discover and correlate your SOA composites, components, services, and back-end Java EE implementations through detailed modeling and drill-down directly into the performance metrics at the component level. Business transactions and service dependencies can be automatically

discovered and the message flows mapped. Details about individual and aggregate transaction execution can be searched for and displayed.

By providing and maintaining the business context while traversing your organization's application infrastructure, your developers and operational staff can leverage Oracle Enterprise Manager to meet the high availability and top performance criteria necessary to maximize business results.

Trace Instance: OrderBookingComposite [1.0]

Use the search to find the instance of a composite that you want to trace. Select an instance and use the Trace Instance option to submit a Tracing job to collect the trace data from all the monitored SOA Infras.

Figure 2. SOA composite instance search and trace

Oracle Enterprise Manager enables your application development and support teams to:

- Continuously discover components, transaction flow, service dependencies and relationships
- Monitor business transactions as they flow across tiers
- Manage Oracle SOA Suite applications with minimal manual effort, regardless of application-specific knowledge or programming expertise
- View aggregated dependences or drill-down to method-level interactions
- Monitor endpoint performance with both synthetic service tests and deep component implementation visibility
- Search and analyze single instance transaction performance, with built-in report generation for slowest running or faulted instances
- Link to related diagnostic and database metrics, taking advantage of SOA Suite specific knowledge
- Quickly isolate and diagnose the root cause of SOA application performance problems in QA, staging, and production environments

SQL ID	Query	DB Time (%)	Total DB Time (sec)	CPU (sec)	I/O Waits (sec)	Other Waits (sec)	JVM Diagnostics
bxch676qy6fg	INSERT INTO C...	98.16	1,230.00	0.00	0.00	1,230.00	
7sz0r2p2bx7dp	SELECT /*+ NO...	0.24	3.00	2.00	1.00	0.00	
gbw9maw8y5u3c	INSERT INTO S...	0.16	2.00	1.00	1.00	0.00	

Figure 3. SOA composite instance search and trace

- Quickly view the SOA dehydration database performance by viewing the dehydration store growth rate, table space, wait bottlenecks, top SOA SQLs and a lot more.

CONFIGURATION MANAGEMENT

Configuration information for the Oracle SOA Suite, Oracle Service Bus, and BPEL processes are collected and stored in the Oracle Enterprise Manager repository. With this information, administrators can:

- View the historic configuration changes across the SOA Suite and Oracle Service Bus environment
- Baseline a working configuration by saving it in the repository
- Compare SOA Suite and Oracle Service Bus server and domain configuration parameters with other servers and domains

LIFECYCLE MANAGEMENT

Oracle SOA Management Pack Enterprise Edition allows administrators to automate SOA Suite patching, deployment, and server provisioning, as well as Service Bus deployment and server provisioning.

SOA administrators can automate patching of SOA infrastructure spread across multiple machines in parallel. Patch plans can be created that will comprise of multiple patches, while patch conflicts can be proactively detected by running patch plan analysis before actually applying the patch plan to the entire SOA Infrastructure setup. Rollbacks can be automated similar to patching automation.

Administrators can deploy multiple SOA composites and Service Bus projects to servers using the deployment procedure framework. A multistep interview process lets users choose the source files for the process, project or resource, target domain, and credentials, then schedule a future deployment using the job system. This enables administrators to:

- Clone directly from test to production
- Clone from fully tested gold image stored in software library
- Provision new composite or new version of existing composite to existing SOA Infrastructure
- Specify composite from software library or file system
- Optionally specify configuration plan

Administrators can provision new Service Bus and SOA Suite domains based on Middleware Provisioning Profiles in Software Library. The provisioning process allows for configuration parameters to be set on the domains being provisioned.

HISTORICAL ANALYSIS AND REPORTING

In addition to real-time monitoring of metrics for SOA infrastructure targets, Oracle Enterprise Manager stores the collected metric and configuration data in a central repository enabling administrators to analyze metrics through various historical views (such as Last 24 Hours, Last 7 Days, and Last 31 Days) to facilitate strategic trend analysis and reporting. Customizable service and system dashboard functionality allow users to create reports on various services and systems for service level availability, usage, performance, and business indicators.

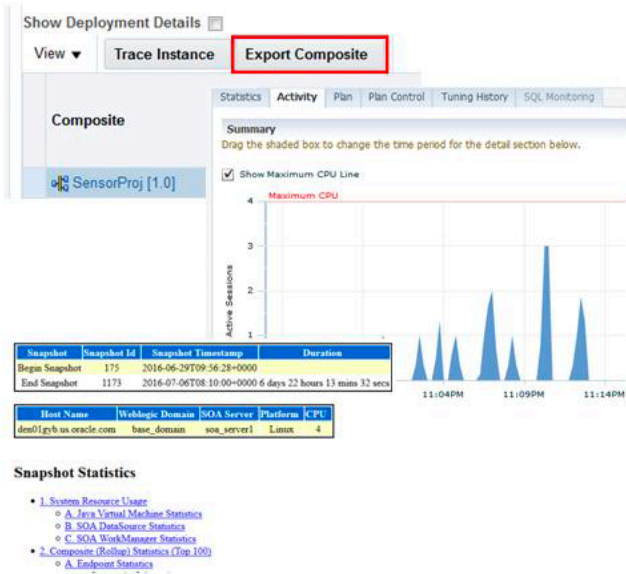


Figure 4. SOA Composite export, SOA Diagnostics and IWS Report Snapshots.

Now users also have option to generate and view IWS [Integration Workload Statistics] reports from within Enterprise Manager. IWS reports list transaction data for all composites with many more details.

THE IDEAL CHOICE

SOA delivers agility to an enterprise; however, if not properly managed, may increase management complexity and cost. Oracle Enterprise Manager makes it easy for IT administrators to effectively manage SOA complexity by providing runtime governance in conjunction with business and IT alignment. Offering service level management, triage, and root cause analysis at all SOA application levels, Oracle Enterprise Manager is an ideal choice for maximizing consistent SOA application performance and creating a superior ownership experience.

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