ORACLE SOA SUITE

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FEATURES INCLUDE:

- **BPEL Process Manager**
  - Process Designer
  - Process Manager Console
  - Process Manager Server
  - Integration Services
  - Human Workflow
- **Business Activity Monitoring**
  - Web Browser Dashboard
  - Business User Authoring
  - Embedded Actions
  - Real-Time Analytics
- **Business Rules**
  - Business User Authoring
  - Small Footprint Engine
  - Seamless Integration
  - Rules SDK
- **Enterprise Service Bus**
  - Multi-protocol bus
  - Data enrichment
  - Content based routing
  - Content filtering
- **Web Services Management**
  - Policy authoring
  - Policy enforcement
  - .NET and Java support
- **Web Services Registry**
  - Publish services
  - Categorize services
  - SOA System of Record
- **Connectivity**
  - 300+ Application adapters
  - Legacy adapters
  - Technology adapters
  - B2B protocols
  - WSIF bindings
- **JDeveloper**
  - Develop Web services
  - WS-* standards support

Changing markets, competitive pressures and evolving customer needs are placing increasing pressure on IT to deliver greater flexibility and speed. Leading companies are adopting Service Oriented Architecture (SOA) as a means of delivering on these requirements by overcoming the complexity of their application and IT environments. SOA facilitates the development of enterprise applications as modular business services that can be easily integrated. Benefits include reuse, ease of maintenance and change, and improved business visibility.

Product Overview

Oracle SOA Suite is a comprehensive, hot-pluggable software suite for the building, deployment, and management of a Service-Oriented Architecture. This includes the service-oriented development of applications, service-oriented integration of applications and IT systems, and process orchestration of system services and human workflow. It plugs into heterogeneous IT infrastructures and enables enterprises to incrementally adopt SOA. The components of the suite benefit from common capabilities including a single deployment and management model, tooling, end-to-end security and unified metadata management.

Oracle SOA Suite improves an organization's ability to **predict** change by improving its visibility to happenings in the business environment in real time and to **respond** to change by enabling it to develop and optimize business processes rapidly. It **simplifies** the IT environment by being provisioned, deployed, monitored, and managed as a single cohesive infrastructure. It **leverages existing investments** by being modular, open, and extensible; it may be adopted it in a heterogeneous environment without needing to remove or replace existing systems as well as in an incremental fashion.

It consists of (i) a BPEL-based Process Manager to compose services into business processes; (ii) a Business Activity Monitoring (BAM) solution to gain real-time visibility into operation and performance of business processes and services; (iii) a business rules engine to capture and automate business policies; (iv) a multi-protocol Enterprise Service Bus (ESB) to connect applications and route messages; (v) a Web services management and security solution to enforce authentication and authorization policies on services (vi) a services registry for discovering and managing the lifecycle of services; and (viii) an Integrated Service Environment (ISE) to develop, debug, profile, and deploy services.

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BPEL Process Manager

Oracle BPEL Process Manager provides a comprehensive, standards-based and easy to use solution for creating, deploying and managing cross-application business processes with both automated and human workflow steps.

Oracle BPEL Process Manager features a graphical and user-friendly **Process Designer**, which is available as a plug-in to the JDeveloper or Eclipse environment providing a unified design time environment. User friendly wizards are provided to simplify many common tasks such as connecting to IT systems and setting up human workflow steps.

Oracle BPEL Process Manager also includes a user-friendly Web-based **Console** for management, administration, and debugging of deployed processes. Instance-level Audit trails, process history, and process analysis/reports are available through the Console.

Oracle BPEL engine is the most mature, scalable, and robust BPEL server available today. It executes standard BPEL processes and provides a "dehydration" capability so that the state of long-running flows is automatically maintained in a database, enabling clustering for both fail-over and scalability.

Built-in **integration services** include support for XSLT and XQuery transformation as well as bindings to hundreds of applications and legacy systems through JCA adapters and native protocols. **Human workflow** services such as task management, notification management, and worklist management are provided as built-in BPEL services to enable the integration of people and manual tasks into BPEL flows.

Oracle BPEL Process Manager may be used for integrating applications and legacy systems, composing coarse grained services from finer grained services, building process centric composite applications, automating business processes, and workflow applications including sophisticated routing and escalation.

Business Activity Monitoring

Oracle Business Activity Monitoring (BAM) is a complete solution for building real-time operational dashboards to monitor business processes and services, services levels, and track key performance indicators (KPIs) from processes and services, with capabilities to take automatic or manually invoked corrective actions.

Oracle BAM enables business users to build interactive, real time **dashboards**, and proactive **alerts**. It leverages the latest web technology to deliver a rich, interactive personalized operational dashboard in which real time data and personalized reports are delivered to Business Users via a standard web browser. The user can also set personalized alert conditions that can be triggered and delivered to the user through e-mail, fax, phone, or other convenient channel. Users have the ability to take the appropriate corrective action from the dashboard on monitored events as needed, e.g. launch a business process in BPEL Process Manager.

Oracle BAM is built on a message-based, event-driven, memory-resident architecture specifically designed for the needs of real-time analytics and reporting applications. Oracle BAM is the first, and only, solution that provides **real-time**

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visibility into enterprise, delivering information within seconds of an event.

Business Rules

Oracle Business Rules enables business analysts to easily define, update, and manage key decisions and policies governing business processes and applications, e.g. business policies within business processes that are likely to change can be captured using business rules

Oracle Business Rules consist of a Rule Authoring Tool, a Rules engine, and SDK. The Authoring tool presents an English-like paradigm for declaring Rules that can be used by both programmers and business analysts. The Rules Engine is a fast and efficient JSR-94 compliant RETE based engine written in Java. The SDK enables rules generation by custom rules editing applications

Enterprise Service Bus (ESB)

Oracle ESB provides messaging, routing and transformation capabilities that enables services to be easily integrated at development time or runtime.

Oracle ESB provides connectivity leveraging Oracle Adapters, which provide standards based access to virtually any data source. Oracle ESB fully supports data transformation and document enrichment using XSLT or XQuery transformation, Business Rules, Systems Cross References, and Domain Value Mapping. Oracle ESB supports content based routing and content filtering. Oracle ESB features a multi-protocol messaging bus including support for JMS, SOAP, JCA, WSIF, JDBC, HTTP, and FTP. The message bus provides configurable JMS qualities of service with different types of persistence stores including Database, File, and In-Memory.

Web Services Manager

Oracle Web Services Manager (OWSM) is a comprehensive solution for securing and managing Service Oriented Architectures It enables security and identity management policies to be defined centrally but enforced globally.

OWSM allows centralized definition of policies that govern web services operations such as access, logging, and content validation, and wrapping of such policies around services with no modification to existing web services. It includes a graphical tool, **Policy Manager**, for building, configuring and publishing policies.

OWSM collects monitoring statistics as policies execute and displays them in a graphical format in **Monitoring Dashboard**. Administrators can set quality of service levels for each application and OWSM will display alerts when the application exceeds established targets. Monitoring Dashboard provides IT operations staff with real-time visibility into the health, performance, security and utilization of web services.

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KEY BENEFITS:

The Oracle SOA Suite delivers the SOA promise of visibility, flexibility, and speed. Best of breed tools provide industry leading functionality in each component. The tightly integrated comprehensive suite lowers the total cost of ownership.

The "hot-pluggable" architecture of the SOA Suite enables seamless integration of the Suite or components into any existing IT environment. Since the best of breed components of the Oracle SOA Suite may be adopted incrementally, they can be used to solve identified business problems, and expanded to enterprise deployments.

RELATED PRODUCTS:

• Oracle Service Registry
• Oracle Portal
• Oracle Identity Management
• Oracle Application Development Framework
• Oracle Business Intelligence

Oracle JDeveloper

Oracle JDeveloper is an integrated development environment for building service oriented applications using the latest industry standards for Java, XML, Web Services, and SQL. Oracle JDeveloper supports the complete development life cycle with integrated features for modeling, coding, debugging, testing, profiling, tuning, and deploying applications.

Connectivity – Adapters, B2B and WSIF

Oracle Adapters enable connectivity to virtually any data source inside the enterprise and B2B enables connectivity with trading partners. Oracle SOA uses WSIF bindings for working natively with Java, EJB, JMS, and JCA services.

Oracle Adapters are available for more than 300 packaged applications, for legacy and mainframes including Tuxedo, VSAM, CICS, and for technology and protocols including FTP, Files, Database, AQ, and JMS. Oracle Adapters are standards based and support both Web Services and JCA. Oracle B2B enables an enterprise to exchange information electronically with its trading partners. It supports a rich set of industry standards including EDI, UCCnet, RosettaNet, CIDX, PIDX, VICS, ebXML, UBL.

Also Available: Oracle Service Registry

When deployed with Oracle Application Server, Oracle SOA Suite components can leverage Oracle Service Registry to publish and advertise services and enable consumers to find and retrieve services. It also serves as the System of Record for all SOA information. It fully supports the UDDI V3 specification.

For More Information

To learn more about the Oracle SOA Suite please visit www.oracle.com/soa

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