

ORACLE SERVICE BUS

KEY FEATURES AND BENEFITS

FEATURES

- Intelligent content and identity-based routing
- Rich set of JCA adapters
- Smart, optimized transports to ERP and WebSphere MQ-based applications
- Data-oriented services and REST support
- Dynamic message transformation and streaming
- Built-in monitoring, management, and QoS
- Configuration-driven service integration
- Optimized, pluggable, policy-driven transport and message security
- Enhanced standards leadership via WS-RM and WS-Security

BENEFITS

- Reduced integration complexity and cost
- Extreme performance and unlimited scalability
- Improved control and visibility
- Improved developer productivity
- Reduced support and maintenance cost

A proven, lightweight integration technology specifically designed for the task of integrating, virtualizing, and managing services in a service-oriented architecture (SOA), Oracle Service Bus enables you to achieve value more quickly with simple, code-free, configuration-based service integration. You will be able to move toward enterprisewide SOA deployments with a high-performance, highly-scalable SOA integration backbone

Overview

An increasing number of companies are ready to embrace enterprisewide SOA deployments across multiple divisions to gain competitive advantage. They must enforce consistent Quality of Service (QoS), security and performance policies across an enterprisewide network, comprising multiple SOA domains. As these mission-critical SOA business processes and service components are used by a large number of internal and external applications, companies realize that only a rock-solid SOA infrastructure will allow them to meet the demanding service levels required to compete in today's business environment.

Ease the Transition to Enterprisewide SOA

Oracle Service Bus—an integral part of Oracle SOA Suite—is the market-leading and fastest growing enterprise service bus (ESB). Oracle Service Bus is designed to connect, mediate, and manage interactions among heterogeneous services, legacy applications, and multiple enterprise service bus instances across an enterprisewide service network. It performs end-to-end governance and management by integrating with Oracle SOA Suite and Oracle's SOA governance solution. It offers unparalleled QoS through unique policy-based service virtualization, service pooling, and throttling capabilities that meet the demands of your high-volume SOA projects.

As businesses move from small departmental SOA footprints to enterprisewide SOA, they need to use the services distributed across multiple SOA domains to build high-value composite applications. Oracle Service Bus mediates and provides location-independent access to services across a service network that can span various SOA domains. Unlike other ESBs, it offers integrated service governance and management capabilities across multiple SOA domains to enable consistent QoS, control, and visibility, ensuring reuse across the enterprisewide service network.

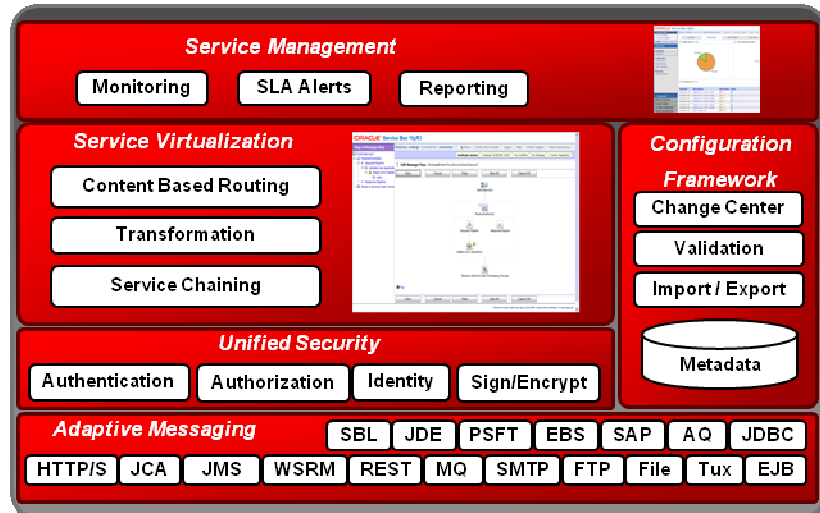


Figure 1. The principal functional areas of Oracle Service Bus are illustrated here.

Enhance Governance and Management of SOA

Oracle Service Bus is the first solution to combine service integration, messaging, operational service management, and security-enforcement capabilities. Unlike other vendors that require multiple products to ascertain the health of services, Oracle Service Bus provides built-in monitoring capabilities, including comprehensive dashboards displaying service-level agreement (SLA) alerts, operational metrics, and message pipelines for the business services it hosts.

Oracle Service Bus enhances the governance and management of your SOA through out-of-the-box seamless integration with Oracle Web Services Manager, Oracle Enterprise Repository, Oracle Service Registry, and Oracle Enterprise Manager SOA Management Pack as part of Oracle's SOA Governance solution. Unlike other ESB products, Oracle Service Bus delivers built-in capabilities for service virtualization, Web service security (WS-Security), and enforcement of policies around throttling and service pooling. This allows it to meet reliability, availability, scalability, and performance requirements and avoid overloading the back-end services for real world enterprise-class applications.

Build Your SOA Foundation on the Industry's Most Scalable ESB

Oracle Service Bus provides extreme performance and scalability for all dimensions of your architecture. Applications need to scale in many dimensions—vertically, horizontally, with user numbers, and with message size. Scalability with an increasing number of services is an important and often ignored dimension of SOA architectures. Oracle Service Bus has the ability to scale easily to 1,000s of services, via sophisticated techniques such as preprocess parsing to split large messages into smaller packets, as well as near linear scalability on clustered deployments.

Highlights of Oracle Service Bus

Oracle Service Bus provides enhanced productivity, modern service patterns, and services within a wider infrastructure.

Enhanced Productivity

Oracle Service Bus enhances productivity by providing visual debugging capabilities fine-grained message-level tracing, and action-level metrics. The visual debugger feature allows developers to define break-points, introspect variable context and data, and step-through the execution stack for inbound and outbound message processing pipelines in an intuitive, observable manner. Oracle Service Bus allows granular logging of messages exchanged at run time between transports, applications, and data endpoints. Logging can be conducted without server restarts, thereby shortening time for problem diagnosis and resolution. By allowing service definition and monitoring, pipeline and action level metrics enable a proactive and empirical approach to bottleneck identification and performance tuning.

As well as its own IDE, Oracle Service Bus also offers a full-fledged Web-based design environment, allowing SOA administrators to take corrective actions at anytime, anywhere with a simple Web browser. Furthermore, all edits are tracked and can be reviewed or rolled back at anytime—an absolute requirement in production environments.

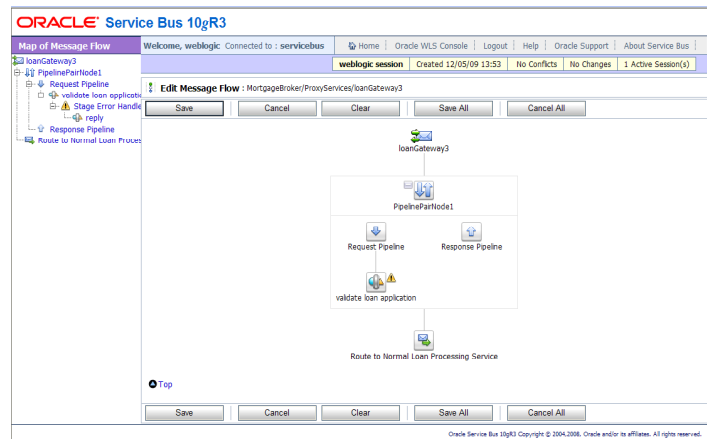


Figure 2. Oracle Service Bus features a lightweight Web-based design console.

Modern Service Patterns

Traditional Web services required service consumers and service providers to agree upon an interface contract, expressed using Web Services Description Language (WSDL), for message or data exchange via SOAP. To facilitate data exchange with external systems, Oracle Service Bus can handle non-XML payloads with a host of datasources such as File, EJB, FTP, MQ, JMS and Tuxedo. Modern stateless service architecture is based on Representational State Transfer (REST). With Oracle Service Bus, developers can easily transform existing services into REST style services thereby avoiding extensive programmatic changes.

Services in a Wider Infrastructure

Oracle Service Bus supports an unprecedented level of heterogeneity and can reliably connect any service by leveraging standard protocols and providing a service oriented approach to integrating enterprise information systems (EIS), such as enterprise resource planning (ERP) systems, letting EIS applications and services participate in the service bus environment through Oracle JCA Adapters.

**ORACLE SOA SUITE:
BEST-OF-BREED TOOLS**

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 Oracle SOA Suite enables it to be seamlessly integrated into any existing IT environment. Because the best-of-breed components of Oracle SOA Suite can be adopted incrementally, they can be used to solve business problems and expanded to enterprise deployments.

RELATED PRODUCTS

- Oracle SOA Suite
- Oracle Event-Driven Architecture Suite
- Oracle Data Integration Suite
- Oracle’s SOA governance solution
- Oracle Service Bus for financial services

Platforms and Requirements

Oracle Service Bus runs on the following platforms:

Platforms and Requirements	
Supported standards	<ul style="list-style-type: none"> • SOAP 1.1, SOAP 1.2, WSDL 1.1, and WSDL 1.1 Binding Extension for SOAP 1.2 • WS-Security 1.0, WS-Policy Attachment 1.0, WS-Security: Username Token Profile 1.0, WS-Security: X.509 Token Profile 1.0, WS-Security: SAML Token Profile 1.0, WS-SecurityPolicy, SAML 1.1 • WS-Reliable Messaging 1.0, WS-Addressing, WS-I Basic Profile • REST • MTOM / XOP • XSLT 1.0, XQuery 1.0, XPath 2.0 • SCA 1.0 • Interoperability with UDDI v3-compliant registries and JMS/MQ-based middleware • HTTP 1.0, HTTP 1.1, TLS, SSL
Protocols and connectivity	<ul style="list-style-type: none"> • Native transports for WebSphere MQ; SecureFTP; Oracle applications (Siebel and PeopleSoft); Oracle BPEL PM; SAP • Comprehensive connectivity options for legacy applications and databases, including Oracle Tuxedo
Platform (operating system version)	<ul style="list-style-type: none"> • IBM AIX (5.3, 6.1) • Oracle Enterprise Linux (4.6, 5.0) • Red Hat Enterprise Linux (4.0, 5.0) • Novell SUSE Linux Enterprise Server (9, 10) • HP-UX (11i, 11i v2, 11i v3) • Sun Solaris (9, 10) • Microsoft Windows (XP (client only), 2003)
Databases	<ul style="list-style-type: none"> • Oracle (9.2.0.4+, 10.1.0.3+, 10.2+, 11.1+) • DB2 8.2 (FixPak 2+) • SQL Server (2000, 2000 SP3+, 2005) • Sybase (12.5.03+) • PointBase 5.1 • Other JDBC-compliant databases
Browsers	<ul style="list-style-type: none"> • Microsoft Internet Explorer (6.0 SP1+, 7.0 (including any service packs)) • Firefox (1.0, 1.5, 2.0)

Contact Us

For more information about Oracle Service Bus please visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.



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