ORACLE DATA SHEET

Oracle SOA Suite 12*c*

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FUSION MIDDLEWARE
SOA SUITE

The rapid adoption of cloud-based applications by the enterprise, combined with organizations desire to integrate applications with mobile technologies, is dramatically increasing application integration complexity. Oracle SOA Suite 12*c*, the latest version of the industry's most complete and unified application integration and SOA solution, meets this challenge. With simplified cloud, mobile, on-premises and Internet of Things (IoT) integration capabilities, all within a single platform, Oracle SOA Suite 12*c* delivers faster time to integration, increased productivity and lower TCO.

CLOUD & ON-PREM INTEGRATION

MOBILE ENABLEMENT

BRIDGING THE INTERNET OF THINGS

MASSIVE SCALABILITY

COMPLETE | INTEGRATED | OPEN

KEY FEATURES

- **Mobile Enablement**
  - REST/JSON support
  - Built-in caching to help scale and reduce latency
- **Cloud Integration**
  - Single integration platform unifying cloud and on-premises applications
  - Dedicated cloud adapters to simplify integration of most popular SaaS applications
  - Extensive Web Services support
  - Support for file-based exchanges through companion Managed File Transfer product
- **Internet-of-Things**
  - Oracle Event Processing bridges the gap between Internet-of-Things (IoT) and SOA environments

Product Overview

Oracle SOA Suite is a comprehensive, standards-based software suite to build, deploy and manage integration following the concepts of service-oriented architecture (SOA). The components of the suite benefit from consistent tooling, a single deployment and management model, end-to-end security and unified metadata management.

Oracle SOA Suite helps businesses lower costs by allowing maximum re-use of existing IT investments and assets, regardless of the environment (OS, application server, etc.) they run in, or the technology they were built upon. Its easy-to-use, re-use focused, unified application development tooling and end-to-end lifecycle management support further reduces development and maintenance cost and complexity.

Functional Capabilities and Components

The functional components of Oracle SOA Suite are grouped in four broad categories: connectivity, service virtualization, orchestration & analytics as illustrated on the below diagram.

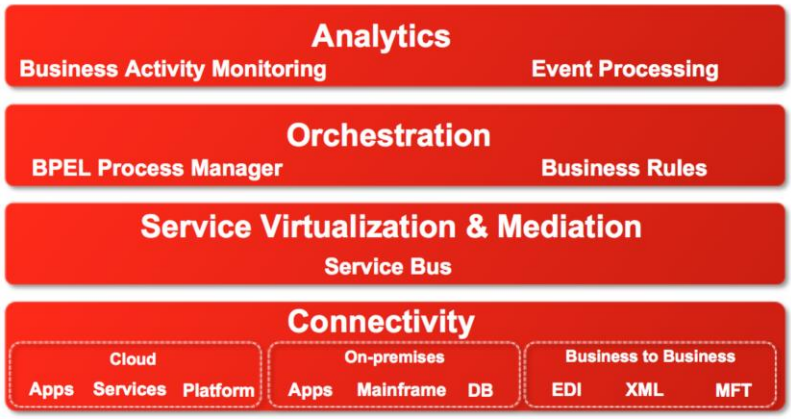

Figure 1. Functional components of Oracle SOA Suite

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- Extract valuable patterns from massive streams of data incoming from devices.

- **High developer productivity**
  - Graphical editor to assemble heterogeneous components into composite applications
  - Fully standard, metadata-driven
- **Extreme Performance & Scalability**
  - Unified runtime for eventing and services
  - Runs on Oracle WebLogic Server, the cornerstone of the Oracle cloud application foundation.
  - Supports millions of critical transactions each day at thousands of customers around the world
  - Deployable in high availability (HA) configurations and supports a number of disaster recovery setups (including Active-Active).
- **Pluggable Services**
  - BPEL Process Manager, leading stateful orchestration engine
  - Human workflow
  - Business Rules
  - B2B
  - Business Activity Monitoring
  - Enterprise Scheduler
- **Oracle Service Bus**
  - Multi-protocol Enterprise Service Bus (ESB)
  - Industry's highest performance & scalability
- **Connectivity**
  - Certified with 300+ application adapters for all leading applications, technologies and mainframes
  - Specific B2B adapters for EDI, ebXML, RosettaNet and other industry standards
  - Unifies connectivity between cloud and on-premise applications
- **Unified Management & Monitoring**
  - Enterprise Manager Fusion Middleware Control provides the single pane of glass to manage and monitor integration flow
  - End-to-end instance tracking
  - One-stop solution for systems and business exceptions management

Connectivity

Oracle SOA Suite features a very extensive connectivity layer, enabling connectivity to virtually any data source inside as well as outside the enterprise. Oracle Adapters are available for more than 300 packaged cloud or on-premise applications, technology legacy and mainframes. In addition, B2B & Managed File Transfer capabilities are included to extend processes to external business partners.

Cloud Applications Adapters

A new line of cloud adapters simplifies the task of developing and managing connectivity to popular cloud applications, unifying cloud and on-premise applications in a seamless fashion. Through graphical wizards they reduce the learning curve often associated with native web services integration, abstracting the differences of each cloud application.

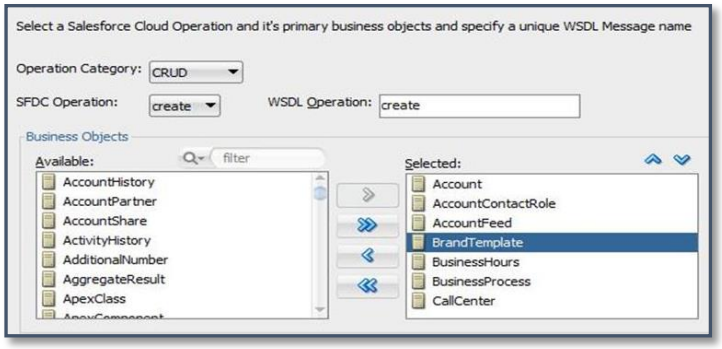

Figure 2. The wizard-driven cloud adapter configuration allows developers to browse available objects & operations

Application and Technology Adapters

Hundreds of off-the-shelf adapters built for Oracle SOA Suite are available to connect to enterprise applications, such as ERP systems or CRM applications from a variety of vendors such as Oracle, SAP, Microsoft, etc. Technology adapters including SOAP, REST, FTP, Files, Database, AQ, Tuxedo, VSAM, CICS, IBM MQ Series and JMS allow you to unlock assets and virtually reach into any IT system.

Business-to-Business Connectivity

Integration can no longer be restricted to internal systems and needs to include functions provided by business and outsourcing partners. Because the interactions need to extend beyond the firewall they often require specific protocols and technologies. Oracle SOA Suite can leverage two key components in this category: Oracle B2B that handles a variety of protocols and formats such as EDI, ebXML, RosettaNet, etc. and Managed File Transfer (MFT), a new companion product to Oracle SOA Suite that provides a global and centralized infrastructure to manage and monitor file transfers typically handled by FTP today.

Service Virtualization

Oracle Service Bus is an enterprise service bus (ESB) that provides the key virtualization layer required for any sustainable integration architecture. Using Service Bus, organizations can shield service consumers from changes that might occur in the backend. They can also hide from developers the often intricate and complex details of underlying implementations of back-end applications, such as legacy protocols. A service bus is the lynchpin of any multi-channel strategy and more specifically mobile strategy: with just a few clicks, developers can create a standard API for any backend

- **Integrated Security**
  - Centralized management of policies
  - Attachment of policies at design-time or runtime
- **Built-in Real-Time Visibility**
  - Web dashboards
  - Real-time analytics
  - Event processing
- **Governance-ready**
  - Publish, share and discover services right from JDeveloper
  - Dependency & impact analysis

KEY BENEFITS

Oracle SOA Suite delivers 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.

system, from mainframes to ERPs – for instance a REST/JSON API that developers could use in their mobile applications.

Orchestration

Oracle BPEL Process Manager provides an easy to use solution for assembling a set of discrete services into an end-to-end process flow, drastically reducing the cost and complexity of process integration.

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. The built-in human workflow capabilities of Oracle SOA Suite allow for people to be included in these processes for approvals and reviews.

Oracle Business Rules allows the externalization of specific business logic and parameters. Business analysts can easily define, update, and manage key parameters and decision trees that are likely to change based on business evolution (for instance discount levels, credit rates, etc.) - without having to involve IT and developers

Analytics

One of the side benefits of a consistent integration strategy is that it opens the door to unprecedented visibility into core business processes; visibility that was not even conceivable when information and processes were silo-ed in individual applications. Oracle SOA Suite includes powerful analytics tools to fully exploit this opportunity.

Business Activity Monitoring (BAM)

Oracle Business Activity Monitoring (BAM) enables the rapid composition of bi-directional graphical dashboard to not only gain real-time visibility into the performance of business processes but also the ability to respond to specific situations.

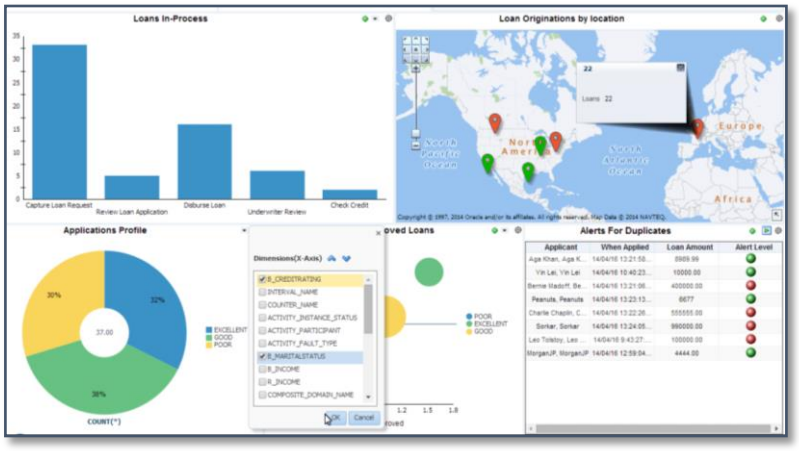

Figure 3. Oracle Business Activity Monitoring (BAM) is used to assemble interactive, bi-directional web-based dashboards

The user can also set personalized alert conditions that can be triggered and delivered to the user through e-mail, phone, or other convenient channels.

Oracle Event Processing

Oracle Event Processing (OEP) is a component of Oracle SOA Suite that correlates

events across applications and streams of possibly very high volume (millions of events per second), detection of patterns, and processing of geo-spatial information in real-time with very low latency. Enterprises are deploying always-connected devices that tend to be very chatty, sending information that is typically of little value in itself but hugely valuable when correlated with other sources. OEP is the perfect tool for this IoT challenge and has been used to create new business opportunities, for instance by enabling real-time and highly precise contextual marketing, using information analyzed in real-time from phone applications, credit card transactions and user information stored in memory grids, NoSQL or HDFS stores.

Intuitive Development, Management, and Monitoring

Because Oracle SOA Suite was designed as an integrated suite and not simply a collection of isolated tools, all key deployment, security, management and monitoring functions are fully harmonized across the components of the Suite.

SOA composite applications are deployed and executed on an unified, optimized infrastructure: the SOA service infrastructure, that runs on top of **WebLogic Server**, and Coherence and benefits from many of its advanced capabilities in terms of scalability, high-availability and tuning.

Management and monitoring of all of above components are performed through dedicated screens natively integrated with Oracle Enterprise Manager Fusion Middleware Control.

Scrutiny and concerns around security of enterprise data and personally-identifiable information (PII) are at an all-time high. At the same time, securing a distributed service-oriented architecture can be a complex task without the appropriate tools. Oracle SOA Suite leverages the extensive capabilities of the Oracle stack to deliver unprecedented usability in this domain.

Built for the Challenges of Today & Tomorrow

Oracle SOA Suite 12*c* provides the platform that enterprises need today to address the increasingly complex nature of IT environments. By integrating existing systems in a rational fashion, enterprises are ready not just for today's mobility challenges but also the longer-term multi-channel requirements that have yet to come. As new devices get rolled out in the field, the combination of integration capabilities and real-time event processing of Oracle SOA Suite provides the required platform to deliver mission critical integration today and prepare enterprises for the Internet-of-Things challenges of tomorrow.

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For more information about Oracle SOA Suite visit http://www.oracle.com/soa or call +1.800.ORACLE1 to speak to an Oracle representative.

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Hardware and Software, Engineered to Work Together

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