

Extending Oracle Siebel CRM with Oracle Fusion Middleware

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Extending Oracle Siebel CRM with Oracle Fusion Middleware

EXECUTIVE OVERVIEW

Changing markets, increasing competitive pressures and evolving customer needs are placing greater pressure on IT to deliver greater flexibility and speed. In response to these challenges, 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 represents a fundamental shift in the way custom applications are designed, developed, and integrated with legacy business applications, and facilitates enterprise applications as modular business services that can be easily integrated and reused. Oracle Fusion Architecture builds on SOA and provides a blueprint for creating sustainable competitive advantage through the continuous blending of business insight powered by high quality information, and adaptable business processes realized through SOA. Oracle Fusion Middleware enables Oracle Fusion Architecture with a comprehensive, unified suite of standards-based middleware components that provides a comprehensive technology foundation.

This paper outlines how Oracle Fusion Middleware complements Oracle Siebel CRM to help enterprises achieve greater flexibility and speed in their business and IT infrastructures.

Beginning with Siebel 7.7 and continuing to Siebel 7.8, 8.0, Siebel 8.1 and beyond, Oracle is integrating and certifying components of Oracle Fusion Middleware with Oracle Siebel CRM to bring the value of these best-of-breed middleware products to Siebel customers.

By addressing the cost and complexity of a disparate and heterogeneous IT environment existing in your company and at your partners – customers, suppliers, external service providers – Oracle Fusion Middleware enables you to maximize the value of your investment in Oracle Siebel CRM.

NEW OPTIONS FOR SIEBEL CRM CUSTOMERS

Oracle Fusion Middleware provides a comprehensive, standards-based middleware suite that addresses the challenges of disparate technologies and applications. To make it easy for Siebel CRM customers to take advantage of Oracle Fusion Middleware, Oracle is integrating and certifying components of Oracle Fusion Middleware with Siebel CRM to bring the value of these best-of-breed middleware products to Siebel CRM customers.

Key components of Oracle Fusion Middleware have been certified with the latest versions (7.7, 7.8, 8.0) of Siebel CRM. All of these Oracle Fusion Middleware certified components can be deployed for all Siebel CRM 7.7, 7.8 and 8.0 applications without requiring an application version upgrade. In addition, Oracle Fusion Middleware provides many capabilities that enable working with, or integrating, older versions of Siebel CRM.

Oracle Fusion Middleware Release	Oracle Siebel CRM Release
<p>10.1.3</p> <p>Certified for use with Siebel CRM (requires additional license):</p> <ul style="list-style-type: none"> ▪ Oracle Business Intelligence Enterprise Edition 	<p>7.7, 7.8, 8.0</p>
<p>10.1.3</p> <p>ADDITIONAL certified components for use with Siebel CRM (requires additional license):</p> <ul style="list-style-type: none"> ▪ Oracle Fusion Middleware SOA Suite: BPEL Process Mgr., JMS, J2EE for Siebel Resource Adapter ▪ Oracle Portal 10g R3 ▪ Oracle Identity Mgmt. 10g R3 	<p>7.8, 8.0</p>
<p>10.1.3</p> <p>ADDITIONAL certified components for use with Siebel CRM (requires additional license):</p> <ul style="list-style-type: none"> ▪ Oracle HTTP Server 2.0 ▪ Oracle Enterprise Mgr. ▪ Oracle Secure Enterprise Search * ▪ Oracle BI Publisher * ▪ Oracle Service Registry * <p style="text-align: right;">*) Support after Siebel CRM 8.0 GA</p>	<p>8.0</p>

Figure 1: Oracle Fusion Middleware and Siebel CRM Releases

A special package called Oracle Fusion Middleware for Siebel is also available to Siebel CRM customers, which provides an extensive set of middleware capabilities. This package includes the following components of Oracle Fusion Middleware:

- Oracle SOA Suite components including:
 - Oracle Enterprise Service Bus (ESB)
 - Oracle BPEL Process Manager
 - Oracle Integration BAM
- Oracle Integration Adapter for Siebel CRM

- Oracle Integration B2B
- Oracle Rules Engine
- Oracle Portal
- Oracle Application Server Web Cache (for accelerated Portal performance)
- Oracle Application Server Business Intelligence Standard Edition
- Oracle Application Server Identity Management/Single Sign-On

UNIQUE VALUE OF ORACLE FUSION MIDDLEWARE

Oracle Fusion Middleware is a unified suite of standards-based middleware components that provides a comprehensive technology foundation – an Application Platform Suite (APS) – and an extensive set of best of breed capabilities for solving enterprise IT challenges. Oracle Fusion Middleware is a proven product that provides several unique differentiators over alternatives.

Uniquely ranked as Leader in
Gartner Middleware Magic Quadrants

Application Platform Suites
Development Tools
Application Server
Web Services Platform
Enterprise Portal
Business Integration
Identity Management
Web Services Management
ETL Data Integration
Content Management



Figure 2: Oracle Fusion Middleware

Comprehensive, Unified Suite of Middleware

Oracle Fusion Middleware 10g offers the industry's most comprehensive and cohesive platform for service-oriented computing. Oracle Fusion Middleware offers a number of technology solutions based on service-oriented architecture:

- A J2EE-based service-oriented architecture platform to develop, deploy, and manage Web services
- Enterprise integration services for data integration, business process automation, and business activity monitoring
- Enterprise portal services to aggregate content and services and to provide users with multi-channel access from wireless devices

- Business intelligence services to query and analyze, perform OLAP, and report on enterprise data
- Security and identity management services to manage access to systems, to enforce consistent policies, and ensure compliance and auditability

These solutions share a common grid computing infrastructure, enabling them to be deployed on large numbers of low-cost, modular servers and storage with industry-leading performance, scalability, and availability. They share a common security and identity management infrastructure to unify security administration. And they share a common systems management infrastructure to monitor and manage systems and applications centrally. Oracle Fusion Middleware is designed to be modular, open, and pluggable – even with other vendors' products – so that you use only what you need but get greater value the more you use.

Addresses Business Challenges

Oracle Fusion Middleware can improve an organization's ability to predict and respond to market dynamics, it can enhance the organization's productivity, and it can radically simplify your information technology environment, while enabling you to exploit your existing investments. Oracle Fusion Middleware has been the fastest growing middleware suite in the world for the past three years. Today more than 33,000 organizations run their businesses using Oracle Fusion Middleware. Regardless of your organization's size, the complexity of your IT infrastructure, or the increasing demands of your business, Oracle Fusion Middleware can provide an edge in today's competitive business environment.

EXTENDING SIEBEL CRM WITH ORACLE FUSION MIDDLEWARE

Siebel CRM provides world-class business CRM functionality that provides vital application infrastructure for many companies. The reality, however, is that CRM functionality needs to be integrated with a company's back-office ERP applications as well as other disparate systems. To execute on a CRM vision, such other applications will need to interoperate with Siebel CRM. Similarly, Siebel CRM customers will very likely need to have business processes, business information visibility, and collaboration that will extend beyond the walls of their organization to external customers, suppliers, and service providers. For example, an Internet channel is a common requirement for Siebel CRM deployments. Oracle Fusion Middleware enables companies to fully leverage their investments in Siebel CRM by addressing these broader needs.

Conceptually, two broad sets of middleware capabilities are required to deliver on the promise of an SOA that supports cross-application business processes:

- First, applications, including Siebel CRM, need to be technically service- and event-enabled with standard Interfaces to participate in an SOA

- Second, flexible, adaptable business processes need to be enabled through modeling, orchestration and monitoring

Service and Event Enable Applications with Standard Interfaces

Since release 7.5, Siebel CRM supports consumption and publication of Web services. With release 8.0, a comprehensive set of pre-built Web services are exposed to make it easier to interface with other systems, and to leverage these services in new applications and processes. But many of these other systems, especially older legacy systems, do not have well-defined, or consistent, service interfaces in place. It is possible to do custom integration with each of these systems. However, by creating a service layer on top of them, those well-defined interfaces can be easily re-used for different purposes. Similarly, it makes sense to develop new applications with standards-based tools so that extra work does not need to be done to service- and event-enable them.

Therefore, Oracle Fusion Middleware provides a wide set of capabilities to enable, manage, and integrate services and events across Siebel CRM and all other services and applications that may exist in your company. These capabilities include:

- Providing an UDDI registry to manage all services and events – Siebel and non-Siebel – in one common place. Web services can be published via Oracle Siebel’s native Web Services Offering, Oracle Integration Adapter for Siebel, and other tools.
- Providing an Enterprise Service Bus for a common communications backbone across all these services and events which integrates with Siebel CRM
- Governing policies and security across all services, including Siebel CRM Services, via Oracle Web Services Manager
- Creating composite applications from these exposed services and events

Expose Siebel CRM Services and Events into an Enterprise-wide UDDI Registry

As of release 8.0, Oracle Siebel’s native Web Services Offering includes 130+ Web services which are right-sized to be leveraged by business analysts. In addition, using SiebelTools, any Siebel Business Service and Workflow can be exposed as a Web service. SiebelTools will provide UDDI and WSDL readiness so that tools like Oracle BPEL Process Manager can easily introspect available services without needing additional adapters.

Additionally, there are other sources of services and events that you may need to work with. There may be other custom developed work within your applications, or older versions of Siebel CRM for which you want access. Oracle Integration Adapter for Siebel provides access to Siebel CRM and also exposes additional service and event metadata through standard interfaces.

Once all of these service interfaces and events are published and available, it is necessary to organize them so that they are easily discovered, and consumed by new composite applications and processes. A UDDI service registry, provided by Oracle Fusion Middleware, allows all of these published services and events to be unified regardless if they originated through a packaged application like Siebel CRM, or you published them.

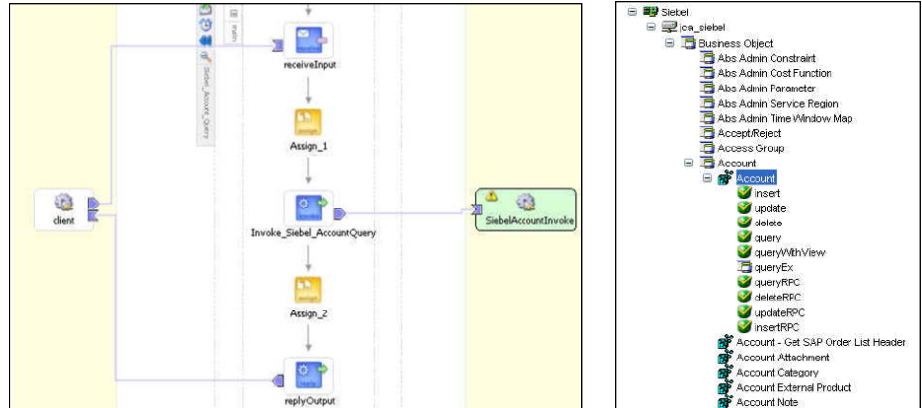


Figure 3: Oracle Integration Adapter for Siebel exposes standard interface and metadata

Integrate Siebel CRM Services With Other Enterprise Services Using Enterprise Service Bus

In an environment with lots of services and applications (not all Siebel based) needing to communicate with each other, integrating them in a point-to-point fashion quickly becomes unmanageable. Oracle Fusion Middleware provides an Enterprise Service Bus (ESB) that makes this communication more efficient and more manageable. An ESB provides a messaging infrastructure which lets you communicate in different ways as appropriate, such as either synchronously (immediate response to a request) or asynchronously (maybe the reply to your request won't come back for days or weeks), as well as ensuring critical Quality of Service aspects such as a guaranteed delivery. An ESB provides a common communications backbone.

The ESB can integrate with SiebelTools which provides a way to communicate with Siebel CRM over different communication protocols including HTTP and JMS. Additional adapters enable communication with Siebel CRM systems older than release 7.5, respectively.

Govern Policies Across All Siebel CRM Services

Governance of services is a key consideration in an SOA. Oracle Web Services Manager defines and enforces operational policies that can be layered on top of services, regardless of how those services were built, or where they are located. This ensures that policies can be consistently applied and guarantees the integrity of a service-oriented architecture, for example, ensuring that critical data, such as credit card numbers, are encrypted. Security performs a vital service within a service-oriented architecture. Oracle delivers a unique capability to ensure that only

authorized access to services is allowed. In addition, Oracle Web Services Manager can track and monitor important metrics around services, providing this information into systems management tools.

Specifically, Oracle Web Services Manager is a key component of a Web channel implementation as part of a Siebel CRM deployment. In this context, Oracle Web Services Manager plays an important role in securing Siebel Web services accessed through customer self-service capabilities on the Internet as well as measuring their performance.

Create Composite Applications Leveraging Exposed Siebel CRM Interfaces

Oracle Fusion Middleware provides a complete, standards-based environment that enables the creation and deployment of these services and interfaces, so you can easily create new services, or service-enable other applications, to be used in conjunction with Siebel CRM applications. Further, it allows the composition of these services into new composite applications

- **Oracle JDeveloper** – An integrated J2EE development environment to develop, compose, and debug Web services
- **Oracle Containers for J2EE** – A comprehensive, J2EE-certified service-oriented architecture platform to develop and deploy simple and composite Web services
- **Oracle TopLink** – An object-relational mapping solution that simplifies how J2EE applications map to and access relational and XML-oriented data
- **Oracle WebCenter** – designed as the “Face of Service Oriented Architecture”, WebCenter provides a collaborative workplace to aggregate content and application functionality into a personalized, composite user interface
- **Oracle Application Development Framework (ADF)** – An SOA framework based on the Model-View-Controller design pattern and designed to dramatically improve developer productivity

Enable Flexible, Adaptable Business Processes

So far, we have described the necessary technology for application services to participate in enterprise-wide cross-application processes. These are the “bottom up” steps to enable an SOA. Now, we will describe how Oracle Fusion Middleware enables the “top down” steps to model business processes and orchestrates individual services into end-to-end business processes that can be monitored and easily changed if necessary.

Oracle Fusion Middleware’s capabilities for enabling flexible, adaptable business processes include:

- Providing an environment (Oracle BPA Suite) that allows business analysts to model & analyze business requirements for enterprise-wide business processes and then to capture and generate a business process outline model
- Providing a standards-based process orchestration engine (Oracle BPEL Process Manager) to implement enterprise-wide business processes with both automated and human workflow steps. Capabilities to define business rules and implement data mappings complement the business process engine.
- Delivering real-time insight into processes and services with Oracle Business Activity Monitoring (BAM)
- Maximizing operational robustness and minimizing maintenance and upgrade costs of processes via pre-built integrations delivered by Oracle Adaptive Business Services, which leverages Oracle Middleware SOA Suite as its technology platform.
- Extending Siebel CRM processes to external business partners via Oracle Integration B2B

Model & Analyze Business Process Requirements

An important step is the business process modeling and analysis phase conducted by business analysts. The better cross-application processes are understood and defined, the more flexible and adaptable they can be implemented as part of an SOA in the long-term. Oracle BPA Suite, based on the best-in-class ARIS tool by IDS Scheer, helps business analysts to a best-practice methodology how to model, analyze and maintain business processes. As an industry innovation, Oracle BPA Suite and Oracle BPEL Process Manager share a common metadata repository. This integration provides the ability for business analysts and system analysts/developers to collaborate to jointly refine business processes.

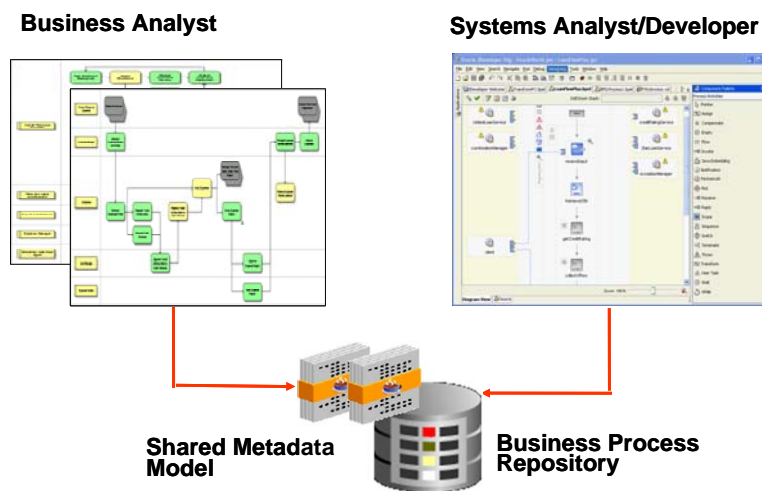


Figure 4: Oracle BPA Suite and Oracle BPEL Process Manager sharing a Common Metadata Repository

Process Orchestration Engine for Automated and Human Workflow Steps

Oracle Fusion Middleware's Oracle BPEL Process Manager provides a comprehensive, standards-based, easy-to-use solution for creating, deploying, and managing cross-application business processes with both automated and human workflow steps—all in a service-oriented architecture. Oracle BPEL Process Manager consumes services from various applications and orchestrates them into a business process. This allows you to extend business processes that involve Siebel CRM across your organization or even to your business partners.



Figure 5: Oracle BPEL Process Manager orchestrating process across Siebel CRM and E-Business Suite

Its native support for standards such as BPEL, JCA, JMS, Web Services, XML, XPATH, and XSLT makes it an ideal solution for creating integrated business processes that are portable across platforms. Oracle BPEL Process Manager fully leverages sophisticated features of the underlying Oracle Fusion Middleware platform such as security, scalability, and high availability. Complemented by Oracle's Rules Engine, Oracle BPEL Process Manager delivers a powerful Business Process Management (BPM) solution to deliver highly dynamic business processes. Oracle BPEL Process Manager also provides an extensive set of adapters and transformation tools, so that it addresses classic application integration needs.

Therefore, Oracle BPEL Process Manager provides a critical orchestration capability that can be used to extend processes that involve Siebel CRM out to other non-Siebel applications, or to outside your organization. It can be used in conjunction with portals to enable much richer interactions than simple one portlet to one application screen situations. While addressing core BPM and integration needs, it adds a powerful capability to other application and middleware solutions.

Providing Real-time Insight into Processes and Applications with Oracle BAM

A component of Oracle Fusion Middleware, Oracle BAM enables you to define monitoring points to provide insight into business flows for reporting, analytic, and performance improvements. Oracle BAM offers a real-time dashboard so you can understand your business processes and key performance indicators. Business events underlie the use of Oracle BAM with Siebel CRM and other systems. When

they notify you about status changes, they provide perfect monitoring points, already engineered within a business process that can serve as the basis for metrics to examine and improve your business processes by identifying when something of importance occurs. Events and transactions generated by Siebel CRM can be directly consumed by Oracle BAM to enable real-time visibility. Similarly, Oracle BPEL Process Manager provides information on running business processes and transaction status through BPEL Console. Using the capabilities of Oracle BAM and Oracle BPEL Process Manager, you can build operational dashboards.

Pre-built Integrations for Siebel CRM leveraging Oracle SOA Suite

Acknowledging the need for Siebel CRM deployments to integrate with back-end systems, Oracle is delivering pre-built process integrations for key vertical industries. This includes:

- Pre-built integration flows with E-Business Suite Order Fulfillment addressing the need for Distributed Order Orchestration in the manufacturing industry (illustrated in Figure 6)
- Pre-built integration flows with the i-Flex core banking solution in the Financial Services sector
- Pre-built integration flows with the Portal Software billing application for Telecommunications customers

CUSTOMER
<ul style="list-style-type: none"> • Support bi-directional synch • Send new customer, address information to EBS only if used to place an order • Support customer merge in EBS, synched to Siebel
PRODUCT
<ul style="list-style-type: none"> • EBS as the product master • Synch product hierarchy to Siebel
PRICING
<ul style="list-style-type: none"> • Oracle Price Lists synched to Siebel
CONFIGURATOR
<ul style="list-style-type: none"> • EBS configurator presented from Siebel Order Capture UI • Leverages Siebel eligibility, compatibility, and pricing
ORDER
<ul style="list-style-type: none"> • Siebel order capture calls EBS for ATP, credit checks, payment authorization, estimated shipping • Complete order synched to EBS for fulfillment • Order status synched back to Siebel, at header and line levels
INSTALL BASE
<ul style="list-style-type: none"> • Install Base synched to Siebel as asset

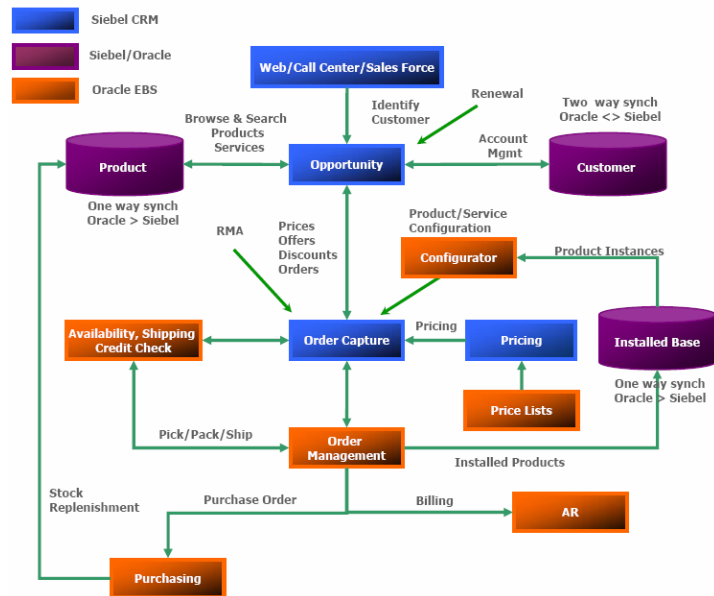


Figure 6: Distributed Order Orchestration (Adaptive Business Services Process Flow)

All these pre-built integrations delivered by Oracle Adaptive Business Services leverage Oracle Fusion Middleware SOA Suite as its technology platform and are designed to maximize operational robustness and minimize maintenance and upgrade costs. Architecturally, the pre-built integrations are built around re-usable canonical objects and include centralized error management functionality.

Importantly, these pre-built integrations will be upward compatible to Oracle Fusion Applications.

Oracle Integration B2B Extends Siebel CRM Processes to External Business Partners

Oracle Fusion Middleware also provides facilities for Business-to-Business (Oracle Integration B2B) integration allowing organizations to automate communication and do business with their trading partners via a number of standard industry protocols. These B2B capabilities enable Oracle BPEL Process Manager to seamlessly extend processes beyond the walls of an organization, all in the same unified environment defining internal processes. These standard industry protocols are all supported within a common infrastructure allowing an organization to communicate with all their trading partners even if partners use different protocols for communication. This is quite common in most industries with small companies using basic file transfer, e-mail, and XML over HTTP methods for communication while large companies use EDI, RosettaNet or other more complex protocols for communication.

Oracle Fusion Middleware enables and extends flexible business processes across applications and services – even those provided by external partners – with a single, consistent set of products.

Share Information and Collaborate

Siebel CRM User Interface components can be shared or integrated into Oracle WebCenter as well as Oracle Enterprise Portal via the Siebel Web UI Dynamic Development Kit to create a comprehensive, enterprise-wide portal or a composite application that can also span other applications.

Traditionally, Portal capability included with Business Applications required a single dedicated Portal to access content from single instance of an application. For customers using multiple instances of applications from multiple application suites, Oracle or non-Oracle, this resulted in fragmented user experience in accessing content from all of these applications.

Oracle WebCenter – Unifying Access Across All Systems and Content

Designed as the “Face of Service Oriented Architecture”, Oracle WebCenter provides a collaborative workplace, which enables you to aggregate content and application functionality across your entire enterprise into a single personalized portal, making it easier to access information, take actions and collaborate with others — both inside the company and with business partners.

Some key elements of the extensive capabilities provided by Oracle WebCenter:

- Integrating content from other applications in Oracle Portal through standards like JSR168/WSRP, and tools like Oracle Portlet Factory

- Integrating content management systems like Oracle Content DB, Oracle Enterprise Content Management (based on Stellent's best-in-class content management capabilities) or Documentum via standards like JSR170.
- Web 2.0, AJAX-style user interactions and context-rich user interfaces in conjunction with Oracle ADF and JavaServer Faces (JSF)
- Collaborative capabilities including Wiki, Community Workspaces, Forums, RSS etc.
- Multi-channel access capabilities including wireless access

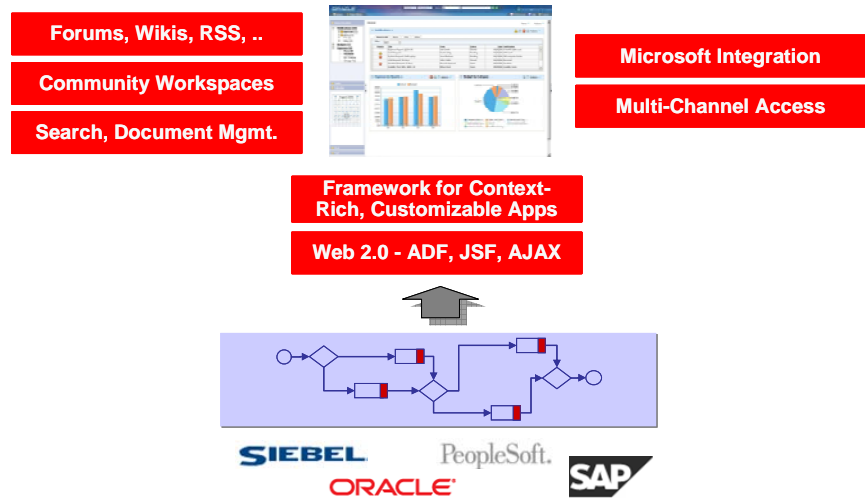


Figure 7: Oracle WebCenter, the “Face of Service Oriented Architecture”

Oracle Enterprise Portal for Self-Service Content Publishing

Oracle WebCenter is an innovative offering optimized for creating composite applications with support for AJAX-style user interaction and Web 2.0-style collaboration. Oracle also provides an alternative, traditional Enterprise Portal with out-of-the-box, self-service content publishing appealing to business users with less sophisticated user interaction and collaboration requirements. Oracle WebCenter and Oracle Enterprise Portal together cover the entire spectrum of Portal technology needs, both for developers of composite, collaborative applications as well as for business users who want a quick and easy way to publish content within the Enterprise.

Single Sign-on across Oracle Portal Offerings and Oracle Enterprise Portal and Siebel CRM

The ability to provide unified, secure access through Oracle Single Sign-On not only simplifies user password management but also increases overall security and provides for user/role-based access control along with personalized, integrated information delivery. Oracle Single Sign-On enables this unified access across

Oracle WebCenter as well as Oracle Enterprise Portal and Siebel CRM. Overall user experience is enhanced since not only can different application content be displayed within a single screen, but the user can drill-into or traverse between different applications with no disruptions.

Integrating Siebel CRM User Interface within Oracle Portal Offerings

Existing screens and content from Siebel CRM can be easily incorporated into Oracle WebCenter as well as Oracle Enterprise Portal via the Siebel Web UI Dynamic Development Kit, providing unified access to transactional systems as well as content and information.

Integrating Other Vendor/Legacy Applications into Oracle Portal Offerings

In addition, many powerful, but easy-to-use, tools are provided by Oracle Fusion Middleware to create portlets from other custom, or legacy applications. Portlets are a key enabler for leveraging data from heterogeneous systems for use in portals and composite applications. The Oracle Portlet Factory helps organizations significantly enhance their ability to integrate data from disparate applications. With Oracle Portlet Factory, developers can build portlets to JSR-168, the industry standard enabling interoperability between portlets and portals. For example, Oracle Portlet Factory includes an integrated portlet development environment and an SAP adapter, which simplifies the process of building portlets for SAP applications. Developers can use the adapter to easily drag-and-drop SAP functional components into portlets that can be accessed through an organization's internal or external portal. Thereby simplifying integration of application access between Siebel CRM and other applications, like SAP.

Deliver Actionable Business Insight

Creating and modifying business processes alone won't give your company a competitive edge; you must also be able to derive business insight from them in order to be able to improve them. You have to keep an eye on key performance indicators and leverage long-term knowledge of your business to ensure that everything is performing according to plan. This requires historical analytics to better understand your business, and identify important trends.

Comprehensive Suite of Business Intelligence Technologies

Oracle Business Intelligence Enterprise Edition Suite provides a comprehensive portfolio of technologies for a company's enterprise-wide business intelligence needs. Capabilities include:

- Providing the Oracle Business Intelligence Enterprise Edition analytic server platform to access business intelligence information across heterogeneous data warehouse sources and make them available via easy-to-use dashboards and querying and analysis tools as well as alerts and mobile analytics

- Providing a heterogeneous data movement and transformation capability via Oracle Data Integrator beyond traditional ETL (Extract, Transform & Load)
- Providing the ability to publish high-quality, end- reports in HTML, PDF, or XML via Oracle BI Publisher
- Providing action-taking and optimization capabilities via Analytic Flows & Real Time Decisions

Using these analytic tools in combination allows you to better derive and communicate business insight by leveraging information coming from Siebel CRM together with information from other application sources for a comprehensive analytical view.

Business Intelligence EE Analytic Server Platform enables enterprise-wide Analytics

Oracle Business Intelligence Enterprise Edition's analytic server platform enables access to business intelligence information across heterogeneous data warehouse sources. A single enterprise metadata layer, a 3-tier metadata model with distinct physical mapping, business layer mapping and presentation layer mapping, spans all of your underlying data sources: from multiple relational, unstructured, OLAP and prepackage application sources, Oracle and non-Oracle. The server generates queries optimized for each kind of data source, appropriately aggregates them and presents the results to users within a familiar Web browser via easy to use dashboards and reports. Users access the business insights via a comprehensive set of tools including ad-hoc query and analysis, easy-to-use interactive dashboards, proactive intelligence and alerts as well as mobile analytics. As Oracle Business Intelligence Enterprise Edition builds on the capabilities of the previous Siebel Business Analytics offering, it is a proven extension for Siebel CRM deployments.

Oracle Data Integrator Provides Innovative, Heterogeneous ELT Capability

Oracle Data Integrator is a comprehensive data integration platform executing high-volume, high-performance loading of data warehouses, data marts, Online Analytical Processing (OLAP) cubes, and analytic applications. Instead of relying on a separate, conventional ETL transformation server, Oracle Data Integrator's ELT (Extract, Load, Transform) architecture leverages disparate relational database management systems (RDBMS) engines to process and transform the data. By reducing network traffic and transforming data in the database containing the target tables, ELT architecture delivers the highest possible performance and lower cost of ownership. With declarative design, the number and complexity of steps is greatly reduced, which in turn shortens implementation times.

BI Publisher provides Business User Friendly High Fidelity Reporting

In addition, Oracle BI Publisher provides the ability to publish high-quality, end-reports in HTML, PDF, or XML. Importantly, business users can make use of familiar tools such as Microsoft Word, Excel or Adobe Acrobat to define reports, which creates a break-through level of usability compared to existing reporting tools targeted at technical power users. Hence, Oracle BI Publisher reduces the

high costs associated with the development and maintenance of business documents while increasing the efficiency of reports management.

Analytics Flows and Real Time Decisions enable Action-Taking and Optimization

Oracle Business Intelligence Suite EE includes a proactive intelligence solution that provides the ability to monitor business information, identify patterns to determine whether specific problems are occurring, filter the data based on data and time-based rules, to alert users via multiple channels, and to allow users to take action in response to alerts. Actionable bots will “watch” for user-defined conditions and or thresholds and notify the user. This proactive intelligence solution can be configured to interact with Oracle BPEL Process Manager – Oracle’s industry-leading Business Process Management solution – or other Enterprise Workflow systems in response to an alert.

Pre-Built CRM Analytic Applications with Oracle Business Intelligence Enterprise Edition

On top of Oracle Business Intelligence Suite EE, its industry-leading, enterprise-level business intelligence platform, Oracle offers pre-built analytic applications relevant to Siebel CRM customers including:

- Sales, Contact Center, Service Analytics (illustrated in Figure 8)
- Order Management and Supply Chain Analytics
- Marketing Analytics
- Financial Analytics



Figure 8: Pre-built CRM Analytic Applications leveraging Oracle Business Intelligence Enterprise Edition

These analytic applications combine pre-built dashboards, pre-built data warehouse schemas and pre-built ETL processes across multiple applications, which significantly speeds up time to market and minimizes the effort required to derive business insight.

Deliver Better Security and Identity Management Experience

A service-oriented architecture enables heterogeneous systems or platforms to more easily communicate, increasing the importance of using an infrastructure that can accommodate this heterogeneity while ensuring security and simplifying the management of identities (users, customers, suppliers, etc) across this distributed infrastructure. Oracle Fusion Middleware provides a number of capabilities to address this critical set of needs.

Oracle Identity Management Suite provides a comprehensive, common security and identity management infrastructure that ensures a robust, protected IT environment as well as simplifies both the user experience and IT operational requirements. Capabilities include:

- Providing a source of truth system for enterprise roles and user identities via Oracle's LDAP Directory Service (Oracle Internet Directory) as well as LDAP Directory Integration and the Oracle Virtual Directory
- Provisioning user accounts and managing user entitlements across multiple enterprise systems and applications with the ability to delegate administration of privileges via the Oracle Identity Manager
- Enabling Web as well as desktop (for client server and legacy applications) Single Sign-On within the enterprise as well as federated across partner enterprises via Oracle Access Manager, Identity Federation and Enterprise Single-Sign-On
- Enforcing security policies across your SOA via Oracle Web Services Manager

Every application must deal with identities, and be secure. In a fragmented IT environment, this often leads to user frustration in having to remember many different passwords, or alternatively inadequate security, as users take shortcuts. Similarly, this type of environment often is very costly to manage, as well as making it difficult to both implement consistent policies, or to have audit trails, or prove compliance.

Directory Services for Enterprise Roles and User Identities

Directory services are central to an identity management strategy. Oracle Internet Directory is an LDAPv3 directory that leverages the scalability, high availability and security features of the Oracle Database. Oracle Internet Directory serves as the central user repository for Oracle Identity Management, simplifying user administration in the Oracle environment and providing a standards-based application directory for the heterogeneous enterprise. In addition, Oracle Directory Synchronization allows Oracle Identity Management to seamlessly integrate with other directories and enterprise user repositories, allowing users to leverage identity information wherever it resides. Alternatively, Oracle Virtual Directory can create the illusion of one enterprise-wide LDAP directory through a run-time LDAP proxy service front-ending multiple different LDAP directories as well as legacy directories. Therefore, Siebel CRM can either leverage Oracle

Internet Directory as the underlying directory, or if using a different LDAP product, integrate that directory with other directories in the company.

Provisioning into Siebel CRM and Other Systems

Oracle Identity Manager, part of Oracle Identity Management Suite, automates the process of provisioning users with IT resources across heterogeneous business processes and managed platforms. It connects users to the resources they need to be productive (“user on-boarding”), and revokes unauthorized access (“user off-boarding”) to protect proprietary information and enhance security. With Oracle Identity Manager, the administration of user entitlements can be effectively delegated. A wide range of adapters, including Siebel CRM, is available to enable provisioning across diverse IT environments.

Single Sign-On (SSO) Across all Systems and Federation

Once provisioned, an employee can be enabled to access multiple applications – packaged, legacy, custom – with Single Sign-On via Oracle Access Manager.

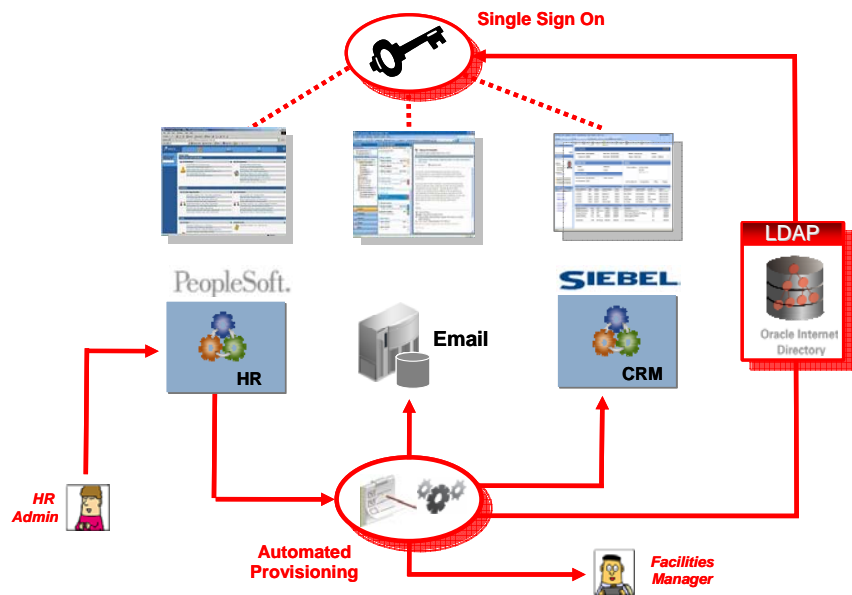


Figure 9: Integrated Use Case of Oracle Identity Management capabilities together with Siebel CRM

Oracle Enterprise Single-Sign-On extends Web SSO capabilities to include desktop SSO for client-server and legacy applications. As described earlier in the portal discussion, SSO unifies the user experience as they move between applications, and reduces the headaches in managing passwords both for the user, and for IT. Federation capabilities allow SSO to be extended to other divisions, partners, or service providers.

Enforcing Consistent Policies Across All Siebel CRM Services

Security performs a vital service within SOA. Oracle delivers a unique capability to ensure that only authorized access to services is allowed. Oracle Web Services Manager defines and enforces operational policies that can be layered on top of services, regardless of how those services were built, or where they are located. This ensures that security policies can be consistently applied and guarantees the integrity of a service-oriented architecture, for example, ensuring that critical data, such as credit card numbers, are encrypted.

Deliver Superior Ownership Experience

System management and operational requirements are often the hidden, underlying parts of an infrastructure that ultimately drive the overall satisfaction and costs from a business, IT, and user perspective. Typical needs include:

- Simplify and be more efficient by unifying systems management across your applications, middleware, and database
- Comprehensively manage and monitor at a business, service, and system level to ensure overall SLA's and optimization
- Leverage Grid Computing for dynamic scalability and mainframe QoS for more efficient utilization on less expensive hardware

Unify Management Across Siebel CRM and Supporting Infrastructure

Oracle Enterprise Manager provides a common management infrastructure across Oracle Fusion Middleware, as well as Oracle Database and application products.

ORACLE Enterprise Manager 10g Grid Control						
Siebel Enterprise: Siebel CRM						
Services Dashboard						
Page Refreshed On Oct 22 2006 12:57:43 PM PDT Refresh						
Service	Status	Performance	Usage	Service Level		
				Last 24 Hours	Last 7 Days	Last 31 Days
Siebel Call Center	↑	 28.00 Txn Time (sec) 5.00 Login Time (sec)	 35.02 Avg Call Time(min) 207 Active SR 207 User Count	98.64%	100%	100%
Siebel Self Service	↑	 2.00 Txn Time (sec) 4.00 Login Time (sec)	 43 User Count 221 Active SR 48 Activities Logged	100.00%	99.73%	99.92%
Siebel eSales	↑	 5.00 Txn Time (sec) 6.00 Login Time (sec)	 66 Active Orders 106 Processed Orders 72 User Count	100.00%	100.00%	100.00%
Siebel eChannel	↑	 2.00 Txn Time (sec) 6.00 Login Time (sec)	 149 User Count 235 Active SR 29 Closed SR	100.00%	99.95%	99.99%
Siebel Marketing	↑	 4.00 Txn Time (sec) 6.00 Login Time (sec)	 1013 Emails Sent 386 Responses Recd 46 User Count	100.00%	99.73%	99.85%

Figure 10: Monitoring Siebel CRM Instance with Oracle Enterprise Manager 10g

This allows you to manage your Siebel CRM deployment in the same environment that is used to manage Oracle Fusion Middleware and Oracle Database, both simplifying overall operations, but also providing an extensive, unified view into your applications and infrastructure. This allows end-to-end tracing and diagnosing of issues, as well as ongoing optimization. This is provided both from leveraging ongoing historical collection of user behavior and performance, as well as the ability to use simulated transactions. A topographical view of the applications and infrastructure provides an easy to understand picture of where everything is deployed.

Comprehensive Management – System, Service, Business Level

Oracle Fusion Middleware provides a comprehensive monitoring and management infrastructure at the system, service, and business level. Oracle BAM and Oracle Web Services Manager, previously discussed, provide important information at a business level and at a service level. Oracle Enterprise Manager, as just discussed, provides extensive capabilities at the systems level.

These monitoring and management products – Oracle Enterprise Manager, Oracle Web Services Manager, Oracle BAM – collectively, with the ability to correlate events across all three tools, enable you to have complete picture of what is taking place in your company – are services performing to expected service level agreements (SLA), which system resources are affecting this performance, and what is the business impact to the organization. Grid Computing provides the ability to leverage this comprehensive management capabilities for a highly efficient, no downtime – either planned or unplanned – environment.

Dynamic Scalability and Mainframe QoS with Grid Computing

Finally, your infrastructure needs to adapt and optimize to adjust to changing business demands. Systems require additional, or fewer, resources as demand increases or wanes. Large, costly systems complicate this problem of matching resources to demand. Leveraging cheaper, commodity resources offers away to reduce infrastructure costs, but ensuring mainframe quality of service (QoS) can become a concern.

Grid computing capabilities of Oracle Fusion Middleware provides the solution, delivering dynamic scalability and mainframe QoS. What exactly is grid computing? In the simplest terms, grid computing pools resources into a single set of shared resources, and dynamic manages these resources to optimize their utilization. The grid computing infrastructure continually analyzes demand for resources and adjusts accordingly.

Ensuring that computing resources are available as needed delivers efficiency and cost effectiveness. When you are developing adaptive business processes, it is vital that they can scale as the business demands. For instance, during the holiday season, chances are that your business goals are oriented to order-to-cash, not to hiring. Grid computing automatically shifts computing resources from the hiring

process to the order-to-cash process. This allows your business processes to scale to meet the increased demand associated with the holiday season. This also reduces your cost of ownership. No longer do you have to purchase hardware to meet peak capacity for individual applications; you can now pool your hardware and efficiently manage these resources.

CONCLUSION

Oracle Fusion Middleware complements Siebel CRM and helps enterprises achieve greater flexibility and speed in their business and IT infrastructures. It maximizes the value of your investment in Siebel CRM by providing a comprehensive service-oriented architecture platform to address the heterogeneous and disparate systems that exist in your company, and at your partners.

To make it easy for Siebel CRM customers to take advantage of Oracle Fusion Middleware, we have certified key components of Oracle Fusion Middleware with the latest versions (7.7, 7.8 and 8.0) of Siebel CRM. All of the Oracle Fusion Middleware components certified can be deployed for all Siebel CRM 7.7, 7.8 and 8.0 deployments without requiring an application version upgrade. In addition, Oracle Fusion Middleware provides many capabilities that enable working with, or integrating, older versions of Siebel CRM applications.

A special package called Oracle Fusion Middleware for Siebel is also available to Siebel CRM customers, which provides an extensive set of middleware capabilities.

Today, over 33,000 customers run their businesses with Oracle Fusion Middleware, and take advantage of its best of breed capabilities (as evidenced by Leadership in 11 Gartner Magic Quadrants) to solve enterprise-wide business challenges.

ORACLE FUSION MIDDLEWARE

Extending Across Your Business: Oracle Fusion Middleware and Oracle Siebel CRM
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