



THE NEW MOMENTUM OF TODAY'S SERVICE-DRIVEN ENTERPRISE

Forward-looking organizations are building on the principles of Service-Oriented Architecture (SOA) to deliver new levels of efficiency, adaptability, and responsiveness.

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EXECUTIVE SUMMARY

In a business climate in which real time is driving a new definition of service and responsiveness, industry-leading enterprises are looking to advanced information infrastructures to help them gain competitive advantage. These technology architectures are optimized around service—to all constituent groups, from customers to employees to partners—and accelerating the response time of the business. The result is a truly service-driven organization that leverages the anytime, anywhere immediacy of today's increasingly Internet-powered economy.

As the base upon which to build such an enterprise, the most forward-looking of these companies are increasingly coming to realize the benefits of Service-Oriented Architecture (SOA), an organizational and design methodology fueled by standards-based infrastructure that more closely aligns the IT mandate with business processes and objectives.

Today, building on new concepts of fluidity and interoperability for business integration, specific implementations of SOA are able to deliver levels of service-oriented benefits in efficiency, responsiveness, and adaptability that would not have been possible just a few short years ago.

THE SERVICE-DRIVEN ENTERPRISE

With the widespread adoption of the Internet as the defining technology of the early 21st century, businesses are undergoing profound changes in the way in which they provide services to customers, partners, suppliers and employees. This, in turn, often leads to new ways of defining—or in some cases redefining—the very nature of their business models.

From retail to manufacturing to the services industry itself, today's market leaders are leveraging Internet-based information technologies to offer a host of new benefits built around this concept of service, all in a burgeoning environment of new market opportunities. Whether it's the introduction and acceleration of innovative self-service capabilities or the improvement of customer response times, the impact is significant: lower operating costs, increased revenue per customer, and market differentiation and leadership.

These characteristics—a new accommodation of constituents in today's anywhere/anytime business model, streamlined processes in real time, and innovation via new, technology-driven products and services—are the very hallmarks of today's Service-Driven Enterprise.

EFFICIENCY, ADAPTABILITY, RESPONSIVENESS

The Service-Driven Enterprise is characterized by its ability to leverage IT in the rapid development and reliable delivery of new or enhanced services in order to maximize the value of opportunity. Organizations whose visions incorporate this emphasis on service-based offerings enjoy new standards of otherwise traditional benefits—standards that drastically change the market landscape.

Foremost among these benefits is greatly enhanced efficiencies of operation. By sharing business services, the Service-Driven Enterprise facilitates business integration by transforming the business from siloed, replicated processes to highly leveraged, mutually accessed services.

Second, the enterprise is able to be far more responsive to its constituents. This means increased service levels in the form of rapid delivery and adaptation of business services to meet customer and market demands.

Finally, the Service-Driven Enterprise delivers increased adaptability; by leveraging a shared services environment, it can more effectively roll out change across the business with minimal complexity and effort.

REAL TIME, REAL LIFE

Consider, as an example, the changes taking place today in the payments industry. When an individual writes a paper check, it costs the bank about 30 cents to process the transaction. But when the same bill is paid online, costs come down to ten cents—a reduction in expense of a full two-thirds. Today, online bill payment is indeed exploding: Gartner Inc. estimates that 65 million people paid at least one bill online last year, up 97 percent from the year before.

Similarly, a leading global securities firm recently realized a host of benefits through a new and focused emphasis on service-based operations. By automating business processes within a shared services model—such as the routing, confirmation, allocation, and settlement of securities transactions—the firm saved \$1 million per month with 40 percent less employee touch-time on exceptions, 200 percent volume growth at a lower cost of delivery and higher customer service levels, and a two-thirds reduction in new client acquisition and set-up time through the integration of their trade flows.

In telecommunications, an innovative service-driven enterprise has extended its mobile network as a services asset for the creation and delivery of new services. The network now provides services such as location and presence, which in turn, enable the creation of additional services, including automated tracking and notification for airlines and mobile-based restaurant finder services for consumers.

And such compelling benefits are not limited to just traditional “services” industries. The effects can clearly be seen in the example of a major computer manufacturer that streamlined processes to achieve a per-employee revenue figure of nearly \$1M, vs. half that for its competitors. Or an automaker that has been able to bring new products such as telematics to its markets. Or an airline manufacturer that is placing sensing devices on aircraft engines to monitor performance in real time, and running constant diagnostics to alert mechanics and pilots of performance degradation that would warrant repair or other maintenance action.

In all cases, across the widest spectrum of industries, the Service-Driven Enterprise is creating both new efficiencies and new opportunities.

A FOUNDATION TO BUILD ON: SERVICE-ORIENTED ARCHITECTURE (SOA)

While the architecture behind the Service-Driven Enterprise is rooted in Web technologies, there is clearly much more to a service-centric approach than merely web-enabling different aspects of a business. Having a customer complete a form online certainly brings business benefits, in the form of reduced administrative costs, lower processing costs, and flexibility for employees and customers. However, an even broader level of impact and benefit is emerging today, through the paradigm of the Services-Oriented Architecture (SOA).

SOA is a set of design and organizational principles that more closely align IT with business needs, enabling greater re-use of IT assets, faster delivery of value to the business, and greater adaptability to support ongoing change. At its most basic, an SOA is a collection of services on a network that communicate with one another. The services are loosely coupled—an application doesn't have to know the technical details of another application in order to talk to it—have well-defined, platform-independent interfaces, and are reusable. SOA is a higher level of application development that, by using standard interfaces, helps mask the underlying technical complexity of the IT environment, allowing an organization to focus on business processes and end-user objectives.

APPLYING SOA

Today, the core principles of SOA are at work across the entire gamut of applications and industries.

In services, consider the fairly common business process of order status. Checking order status and taking action based on that status may appear simple, but it is one of the more complex processes in most companies. Status of the order must be checked in several systems: planning, inventory, manufacturing, and logistics, to name just a few. Further, the order may be split for different delivery times, locations, or suppliers so that each element of the order has to be checked for status. The multi-application nature of this seemingly simple process is what drives the complexity—requiring multiple log-ins, some familiarity with multiple applications, and some knowledge of the overall order process.

This complexity is the reason that over 30 percent of all calls into call centers are for the purpose of checking order status—despite the widespread use of the Internet by enterprises and consumers. And checking status is but one facet of the process's complexity. Based on an order's status, a user may want to make a change, which triggers an entirely set of new operations, including a check on the availability of an alternate part, validation of price, confirmation of technical specifications, reconfiguration and/or cancellation of the order, new shipping parameters, and potentially new payment processing.

Web-enabling this process may make it easier to reach each application in the process, but it won't enable a pure, self-service model. Prior to SOA, this process would remain manual, costly, and inefficient. With SOA, however, each application or information source can be service-enabled; that is, given a common interface and protocol, so that it might be seamlessly pulled into a platform-independent process model in conjunction with a user interface model that spans those applications.

In this way, a process that was once cumbersome and costly becomes plainly clear and intuitive to an end user. This process can now be shifted to a self-service paradigm that can dramatically lower operating costs, increase customer responsiveness, and potentially create market leadership by differentiating servicing capability relative to others in the market.

Service-Oriented Architecture provides another case study in the banking industry, where SOA principles are applied by service-enabling key application assets including deposits, checking, investments, the customer data mart, and risk applications. Core data objects—customer profile, customer accounts, and contact history—are created once, and leveraged for business services and processes such as account maintenance, loan application and processing, and campaign management. These newly repurposed “shared services”—as well as legacy applications—are then extended to consumers across multiple channels encompassing the web, call center, ATM, and branch.

For virtually all applications and industries, the SOA model dramatically reduces IT complexity through standards-based compatibility for the streamlining of application or project development and delivery processes through the reuse of previously developed and deployed shared services.

PROPELLING CHANGE: THE BEA WEBLOGIC PLATFORM™

A critical aspect for companies in making the shift to SOA is the deployment of a shared services model to manage the core IT assets associated with key business processes. High-impact shared services can be deployed around customer data, order information, inventory assets, and financial data such as billing. These core assets can then be “shared” in major business initiatives. An order status service, for example, might be developed to initially serve the call center, but then shared across field service, sales, and ultimately with customers directly.

This shared services model is best realized through a unified design time and runtime architecture with a model designed for re-use, such as is currently offered by the BEA WebLogic Platform.

The BEA WebLogic Platform is the only enterprise-class platform that, through its BEA WebLogic Workshop™ development environment for building Java and service-based applications, represents a truly unified approach to integrated, flexible, enterprise computing. Given its ability to “normalize” the interface to disparate computing assets within the enterprise, and to make those assets available to other developers for new uses, the BEA WebLogic Workshop environment is uniquely positioned for the SOA framework. By building a control that can be re-purposed in different systems, SOA allows a single change to be made to the underlying assets—a change that doesn’t, in turn, require new development or testing by others leveraging that service. Typical services that enterprises are currently deploying include access and authorization services, business services—for example, billing, customer profiles, and order status or alerts—presentation or portal services, integration services, and foundational application services.

BEA WebLogic Platform and its simplifying frameworks are dramatically reducing the complexity of the migration to SOA, while reducing the lifetime cost of IT infrastructure. In a recent study, Gartner Inc. concluded that a unified application platform approach, such as BEA WebLogic Platform 8.1, has enabled enterprises to realize initial project value nearly 25 percent faster with a 20 percent lower overall cost than competing alternatives. This is amplified over the lifetime of a project where recurring change and maintenance costs can be reduced nearly 30 percent annually.

CONCLUSION

Today's Service-Driven Enterprise is a new kind of company, characterized by efficiency, responsiveness, and adaptability—all of which add up to a powerful and dynamic model for today's visionary organizations.

Built on the foundation of a Service-Oriented Architecture, the Service-Driven Enterprise integrates business processes through common operational practices that transform the business from siloed, replicated processes, to highly leveraged, shared services. The results enable such companies to offer dramatically improved service levels to their key constituents—customers, employees, and partners—through a self-service operating model where information, knowledge, and processes are available to key constituents 24/7 across any Internet-enabled channel.

Through the shared services model of SOA and BEA's unified design and deployment platform for enterprise-class applications, these organizations are able to effectively deploy change throughout their business with minimal complexity and effort. Technologies such as BEA's allow an enterprise to re-purpose legacy application and information assets through service enablement, and extend its reach beyond its own corporate bounds according to business process models that are unique and proprietary to the enterprise—the very processes that drive differentiation, and define leadership.

ABOUT BEA

BEA Systems, Inc. (Nasdaq: BEAS) is the world's leading application infrastructure software company, providing the enterprise software foundation for more than 15,000 customers around the world, including the majority of the Fortune Global 500. BEA and its WebLogic® and Tuxedo® brands are among the most trusted names in business. Headquartered in San Jose, Calif., BEA has 75 offices in 34 countries and is on the Web at www.bea.com.

LIQUID COMPUTING

With the advent of Service-Oriented Architectures, business today is on the cusp of an entirely new wave in the advancement of technology—one that completes the march to a more flexible, simplified, and fluid state of enterprise computing. At BEA, we call this vision Liquid Computing.

Liquid Computing is characterized as a free-flowing state of enterprise operations, where long-standing technology barriers are removed, allowing IT to connect directly to the business. Liquid Computing is defined by high compatibility built into the enterprise fabric, adaptability that takes an active and often automatic approach, and productivity driven by new levels of ease and autonomy.

BEA's support for Service-Oriented Architecture is the starting foundation for Liquid Computing, providing an open platform, powerful development tools, and reusable components for service-enabling the enterprise to leverage shared services. The result? A new ability for the enterprise to drive down costs, rapidly orchestrate and bring new services to market, and make changes when needed with minimal effort. A fluid enterprise, where IT is the responsive, productive partner of the business. An environment in which simplicity and speed are the hallmarks of service. A sea change in the delivery of business value.

Liquid Computing is a vision whose time has come.



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