Abstract

Enterprise mashups—governed compositions of loosely-coupled Services within a rich, Web-based environment—are attracting increasing levels of attention today, because of their visible business value as well as the user empowerment they promise. Providing the infrastructure necessary to support the governance and loose coupling such mashups need, however, requires Service-Oriented Architecture (SOA).

As a result, enterprise mashups are increasingly driving demand for SOA across numerous enterprises, as they provide a visual representation of the value of SOA that business people and others can readily understand. It’s helpful, therefore, for enterprises looking to leverage the benefits of mashups as well as the benefits of SOA to invest in an enterprise mashup platform that brings the value of SOA to the user-driven interface that mashups enable.

JackBe’s Presto enterprise mashup platform addresses these issues. ZapThink has written on Presto before, but now we are finding that the platform is maturing in its ability to deliver rapid value to a wide range of users, both within business and IT. Furthermore, JackBe’s “Mashlets,” or mashup widgets, are helping to connect the dots for users who are seeking value from their SOA initiatives through the creation of enterprise mashups.
Mashups: The “Killer Use Case” for SOA

According to Wikipedia, a mashup is a Web site or Web application that seamlessly combines content from more than one source into an integrated experience. Mashups, in fact, are closely related to Service-Oriented Architecture (SOA), because SOA enables the composition of content or functionality from more than one source into an integrated experience. What mashups bring to SOA is the rich interface and user empowerment, while what SOA brings to mashups is governed, loosely coupled, abstracted business Services. The enterprise mashup, therefore, combines mashup capabilities with SOA, enabling flexible, composable, and collaborative business applications with rich user interfaces.

In many ways, however, mashups and SOA come from different worlds. Mashups are a “Web 2.0” phenomenon, belonging to the largely ungoverned, public Web-based world of collaboration and social networking. SOA, however, is an approach to organizing enterprise IT and business resources to enable more flexible business processes in the face of ongoing business change.

As architecture, SOA is difficult to understand for many business people, and the benefits of SOA tend to be abstract and long term, while the benefits of mashups are readily visible. Mashups, in fact, are sexy. Their appeal is automatic, and their business value tends to be readily apparent. But without SOA, mashups are less attractive in the enterprise environment, because without the loose coupling and governance that SOA provides, mashups are both dangerous and unreliable. The result is a fascinating trend: enterprise mashups—mashups that SOA enables—are becoming the “killer use case” for SOA. In other words, mashups are driving business acceptance and understanding of the benefits of SOA where earlier, architecture-focused efforts at explanation failed.

In fact, this ability for enterprise mashups to drive acceptance of SOA in the enterprise provides value regardless of whether the organization is taking an architecture-driven or product-driven approach to SOA. For enterprises who are taking the best practices, architecture-driven approach to implementing SOA, enterprise mashups provide a rapid visualization of Services, as well as compositions of Services that implement business processes that we call Service-Oriented Business Applications. Such rapid visualization leads to broad user empowerment, as IT provides increasingly powerful, flexible tools to the business.

Perhaps more interestingly, enterprise mashups also provide value to organizations who have diverged from the best practices route to SOA and have followed a vendor’s self-interested advice to begin a SOA initiative by purchasing a software product, typically an Enterprise Service Bus (ESB) or a Registry/Repository. Organizations that fall into this trap typically struggle over the role of architecture, and often make both design and implementation decisions based on the functionality of their purchases rather than the best approaches to solving their business problems. For such organizations, enterprise mashups can form a critically important bridge between existing capabilities and the business value that SOA can best provide. By focusing on creating enterprise mashups that meet business needs, an organization is better able to identify the Business Services it requires, which in turn drives the underlying implementation, ideally from a product-neutral perspective.

In essence, then, it is enterprise mashups’ user-driven capabilities that give IT a way fulfill the promise of SOA and enable organizations to achieve the sometimes elusive ROI of SOA. The synergies between enterprise mashups and SOA also include the following:

- Mashups can lead to the creation of simple abstracted Business Services even when the full SOA infrastructure is not yet in place. Such Services may not have the full robustness that SOA can provide, but they can provide a good measure of business value in the meantime regardless.
Allowing mashups to drive Service design contributes to the selection of the appropriate level of granularity of the underlying Services. If the Service has the proper granularity to support a mashup, then it’s likely to have the right balance of business value and reusability.

Mashups promote reuse broadly as well, as mashup platforms provide a visual catalog of available Services, thus facilitating the discovery and use of such Services, especially in unpredicted or ad hoc ways.

Mashups can incorporate both internally and externally provided Services. Business Services should ideally be location-independent, where the governance infrastructure determines access roles and privileges automatically. Mashups can inherit this location independence from the Services being mashed, and mashup software should make the actual location of a Service irrelevant.

**JackBe: Enterprise Mashup Platform that Leverages SOA**

JackBe delivers enterprise mashup software that empowers both application developers and business users to create, customize and share enterprise mashups. The **Presto Enterprise Mashup Platform** provides a dynamic approach for building enterprise mashup applications, leveraging both internal and external Services, while supporting the governance requirements essential in the enterprise. JackBe developed Presto to deliver on the principle that enterprise mashups combine the best of the worlds of SOA and the Web 2.0 context for mashups, although Presto does not require SOA to be in place. The Presto Enterprise Mashup Platform includes:

- **Presto Server** – A server-based solution for Service virtualization that creates source-neutral Services that are easy to find, compose, and share. Presto Server connects users to mashups, enabling such applications to work efficiently in the browser. Presto Server also includes a mashup engine and Service access engines, virtualization management, and Enterprise Mashup Markup Language (EMML) support.

- **Presto Wires** – Browser-based drag-and-drop visual mashup composition tool for both IT and business users.

- **Presto Mashup Studio** – Eclipse plug-in for programmers to design, test, debug and deploy mashups.

- **Presto Mashlets** – Enterprise widgets that give mashups a portable, sharable user interface.

- **Presto Connectors for Excel, HP Systinet, Oracle Fusion, and Portals** – Allows users to consume mashups into Excel, automates the sharing of SOA governance information between HP Systinet and Presto, and enables users to publish Mashlets directly to portal platforms including IBM, BEA and Oracle, respectively.

**Mashlets: Bringing Business Services to Mashups**

JackBe is pioneering the concept of a Mashlet, which is a user interface “widget” that displays information in a way that is fully configurable by the user. Once a user creates a Mashlet, they can use it anywhere: in an enterprise portal, in a blog, or even as a sharable micro-application that any user can place on their desktop. For example, mashups made up of Mashlets can support risk management experts by putting the power to configure the risk management information into the risk manager’s hands. Through the use of Mashlets, enterprises can rapidly leverage data and allow users to place customized, governed Mashlets on their Web sites, blogs, or Wikis.

Presto also supports a visual drag-and-drop interface for creating mashups by composing Mashlets together. Users can build Presto mashups like the one in the illustration below from
almost any internal or external data source including spreadsheets, databases, Web Services, REST-based Services, RSS and Atom news feeds, and many other types of applications. Presto also ensures that users can create and share mashups and Mashlets within the governance and security infrastructure essential to today’s enterprises.

Presto-Based Enterprise Mashup

JackBe Presto Enterprise Mashup Platform Features

Overview:
The Presto Enterprise Mashup Platform empowers both application developers and users to create, customize and share enterprise mashups by empowering such individuals to consume Services, create new applications, customize the results, and collaborate with peers, all within a secure and governed framework.

Presto Features:

- **Presto Enterprise Mashup Server** – Delivers Service virtualization that enables users to draw upon Services, regardless of their location, and connect them together.

- **Presto Mashup Composers** – Tools that enable both business and technical users to create mashups. Presto Wires is a Web browser-based visual mashup composition tool for IT and business analysts. Presto Mashup Studio is an Eclipse plug-in providing Java programmers design, test, debug and deploy capabilities for mashups. In addition, Mashlets are portal widgets that give mashups a user interface.
Presto Mashup Connectors – Using standards-based interfaces like Web Services for Remote Portlets (WSRP) and the Governance Interoperability Framework (GIF), JackBe has created bidirectional connectors from Presto to portals, ESBs, and other enterprise infrastructure including HP Systinet, Oracle Fusion, and Microsoft Excel.

Value Proposition:

- Empowers the business user to assemble their own situational applications in response to ever-changing business requirements.
- Enables users and developers to create enterprise mashups with faster time-to-use, and improved usability and flexibility over traditional application development approaches.
- Provides faster, easier, and more flexible access to business data than traditional applications, benefiting business users through increased self-sufficiency and better ROI from their data.
- Allows IT to retain the ability to govern, secure, and manage enterprise infrastructure and data assets.
- Accelerates use and adoption of reusable IT assets by putting a face on Business Services that allows end users to quickly leverage such Services and their data within business applications.

The ZapThink Take

Most software vendors in the emerging mashup arena tackle the problem of mashups horizontally, that is, by focusing perhaps on the user interface, or on the Web infrastructure, on the business process capabilities, or on the middleware. JackBe, however, has elected to take what we might describe as a vertically integrated approach, connecting rich user interface capabilities to server-side infrastructure that both supports the powerful capabilities of the mashups at the interface while leveraging the SOA infrastructure under the covers.

In other words, JackBe’s approach to enterprise mashups is truly enterprise-class, which allows them to rise above the noise in the Web 2.0 marketplace. Eventually this noise will die down, as it always does, but in the meantime, most vendors building mashup tools or solutions offer little more than a thin veneer. JackBe, on the other hand, has built out the full enterprise platform. So while the visual mashup story is the sexy part of what JackBe offers the marketplace, they have taken the extra steps to ensure their mashups are fully enterprise ready.
Profile: JackBe

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Funding:
Intel Capital, Darby Technology Ventures, Blue Chip Venture Company, Maryland DBED, Core Capital, and Harbert Technology Partners

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Products:
Presto Server, Presto Mashlets, Presto Wires Virtual Composer, Presto Mashup Connectors

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Related Research

- IDV Solutions ZapNote (ZTZN-1223)
- JustSystems ZapNote (ZTZN-1222)
- Corizon ZapNote (ZTZN-1216)
- Hyfinity ZapNote (ZTZN-1210)
- Nexaweb ZapNote (ZTZN-1207)
- JackBe ZapNote (ZTZN-1204)
- BackBase ZapNote (ZTZN-1179)
- Laszlo Systems ZapNote (ZTZN-1144)
- DreamFactory ZapNote (ZTZN-1138)
- General Interface ZapNote (ZTZN-1145)
- Rich and Smart Clients for Service-Oriented Architectures Report (ZTR-WS111)
- Composing Services into Enterprise Mashups White Paper (WP-0144)
- Enterprise Mashups: The Face of SOA ZapForum Podcast (ZTP-0292)
- Building Rich Enterprise Applications ZapForum Podcast (ZTP-0283)
About ZapThink, LLC

ZapThink is an Enterprise Architecture (EA) strategy advisory firm. As a recognized authority and master of Service-Oriented Architecture (SOA) and EA, ZapThink provides its audience of IT practitioners, consultants, and technology vendors with practical advice, guidance, education, and mentorship solutions that assist companies in leveraging SOA to meet their business needs and presenting viable SOA solutions to the market. We provide this audience a clear roadmap for standards-based, loosely coupled distributed computing – a vision of IT meeting the needs of the agile business.

ZapThink provides IT practitioners strategic insight and practical guidance for addressing critical agility and change management issues leveraging the latest EA and SOA best practices. ZapThink helps these customers put EA and SOA into practice in a rational, well-paced, and best practices-driven manner and helps to validate or recover architecture initiatives that may be heading down an unknown or incorrect path. ZapThink assists with solution vendor, technology, and consultant selection based on in-depth, objective evaluation of the capabilities, strengths, and applicability of the solutions to meet customer needs as they relate to EA initiatives and as they map against emerging best practices. ZapThink enhances its customer’s skills by providing education, credentialing, and training to EAs to develop their skills as architects.

ZapThink helps to augment consulting firms’ EA offerings and intellectual property by providing guidance on emerging best practices and access to information that supports those practices. ZapThink provides frameworks for product-based consulting based on ZapThink insight and research, such as SOA Implementation Roadmap guidance, Governance Framework development, and SOA Assessments, and provides a means to endorse and validate consulting firm offerings. ZapThink also accelerates consulting firms’ efforts to attract, retain, and enhance the skills of EA and SOA talent by providing education and skills development.

For solutions vendors, ZapThink provides retained advisory for guidance on product strategy, as well as marketing, visibility, and third-party endorsement benefits through its marketing activities, lead generation activities, and subscription services. ZapThink enables vendors to leverage ZapThink knowledge to transform their offerings in a cost-effective manner.

ZapThink’s Managing Partners are widely regarded as the “go to advisors” and leading experts on SOA, EA, and Enterprise Web 2.0 by vendors, end-users, and the press. Respected for their candid, insightful opinions, they are in great demand as speakers, and have presented at conferences and industry events around the world. They are among the most quoted experts in the IT industry.

ZapThink was founded in October 2000 and is headquartered in Baltimore, Maryland. Its customers include Global 1000 firms and government organizations, as well as many emerging businesses. Its Managing Partners have worked at such firms as IDC, Saga Software, Mercator Software, marchFIRST, and ChannelWave, and have sat on the working group committees for standards bodies such as RosettaNet, UDDI, and ebXML.

Call, email, or visit the ZapThink Web site to learn more about how ZapThink can help you to better understand how SOA will impact your business or organization.

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