

Integrating People and Process with SOA

BERNSTEIN: Thank you all for joining us today on this ebizQ Webinar. I'm Beth Gold Bernstein, director of the ebizQ training center. Today we're going to be talking about how to integrate people and process with SOA.

Joining me in this discussion are Mark Simons, WebSphere Product Marketing of BPM at IBM; Paul Chan, Program Director of Workplace Forms Marketing at IBM; and, John Raslowski, SOA sales leader for Lotus software at IBM. Welcome, gentlemen.

Today there is a widespread and growing recognition that SOA is the best architectural practice for enabling business agility. SOA enables organizations to quickly adapt to change. It makes it easier and faster to integrate mergers and acquisitions, change business processes to comply with regulatory requirements, implement new services and solutions to take advantage of ...competitive opportunities, or respond quickly to competitive threats.

In fact, business agility is the number one reason organizations are adopting to...SOA. In a recent ebizQ survey of over 300 organizations representing 21 industries conducted just this past August, business agility was the most popular driver for SOA adoption.

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Now, when we ask the question, more than one response was allowed for this question. And when we looked deeper into the most popular combinations interestingly the number one was increasing business agility in IT reuse, and the number two was increasing business agility and process optimization, and number three was business process optimization and IT reuse.

But when we looked at respondents who noted only one driver, increasing business agility was the clear winner above all the rest followed by number two, business process optimization. And IT reuse was third.

And we concluded from this -- and frankly were at first a bit surprised by it -- that SOA really is more of a business initiative than an IT initiative.

But while SOA holds great promise for enabling business agility, it's also important to remember that it's not a single technology or even a single project. SOA is an architectural practice of creating loosely-coupled services which can then be flexibly combined to create new business solutions.

Now this loose coupling minimizes the impact of change and makes it possible for the services to be independent of platform or software language.

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This concept can be applied to a wide variety of business requirements, so one of the challenges for organizations either to reap the rewards of the promised land of SOA is knowing where to start.

So while the benefit...there are benefits to IT focused SOA initiatives such as expanding levels of reuse and creating standardized interfaces to applications so that they can be more easily integrated and reused, as we found in the survey as well, in the long run the larger payoff lies in the business initiatives aimed at increasing business agility.

Now, these business centered initiatives can be broadly characterized as optimizing business processes making widely dispersed information easily available to decision makers and knowledge workers in a way that provides a single view of the truth and also gives them just in time information for making better informed faster decisions.

It also helps in making the interaction between people and systems -- human to computer or H to C -- and people with other people communications, human to human interactions, far more efficient.

Now these are a wide variety of initiatives that can

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benefit for...from SOA, but also each type of this initiative...each initiative involves different types of technologies. In today's discussion we're going to be focusing on the people part of the equation and talking about how to integrate people and process with SOA.

So I'd like to start by asking Mark Simons to tell us how process, people and Service-Oriented Architecture are related.

SIMONS: Sure, yes, so people, process, information are all interlinked with each other. For example, let's look at each tip of the triangle. People are either consumers of processes or participants in the process and make informed decisions based on the information available.

If we look at the process, that integrates and orchestrates how and when people and information are used at the various steps in the process. And information, of course, flows through the process, often with people responding to information presented to them.

All of these are in fact entry points into your Service-Oriented Architecture. So SOA uses people, process and information as reusable services that can be linked and integrated around greater flexibility,

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innovation and collaboration.

Now, I'd like to just take a few moments to position all of this in the wider context of BPM with SOA. From an IBM perspective Business Process Management, or BPM, is a discipline combining software capabilities and business expertise to accelerate process improvements and facilitate business innovation.

The expertise that delivers BPM is process knowledge, often held within standard operating procedures in the minds of the process servers knowledgeable about their field of expertise;

...industry methods and models which are predefined process and data models for various industries based on best practices, offering the [fast start] and often help with compliance issues;

...business consulting expertise -- meaning, consultants who can help a customer design and integrate BPM solutions.

The software that enables BPM is business services. For example, business assets which have been created as reusable services and stored in your repository; the tools, the rules, servers and repositories themselves,

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these represent the runtime, business and IT tools to create and deploy the processes...

And also, business dashboards and [forums]. By this I mean business and operational activity monitoring and business user interfaces.

So the value of Service-Oriented Architecture to the business is as follows. SOA seeks to ask of your technical and people assets what is the service that you provide?

So using tools such as WebSphere Integration Developer a customer can create well-defined, highly reasonable service interfaces that can remain stable for as long as the business needs them to.

The Integration Developer can literally wire these services together rapidly to create new business processes, discover and expose new assets of services, and transform and read information between services, all without coding.

Integration Developer, but more importantly the business, is then shielded against lower level technology changes.

For example, although the SAP application may have been replaced by the Oracle application to perform a

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particular function, the service interface can remain unchanged.

Similarly, if one vendor's messaging system is replaced by WebSphere MQ, again, this does not impact existing processes. So Business Process Management builds upon a Service-Oriented Architecture as I've hopefully demonstrated, provides that greater agility leading to rapid business innovation and flexibility.

BERNSTEIN: Now, Mark, how do you answer the question, where do you start on process integration and SOA?

SIMONS: Well, that's a great question, and my advice is quite simple. Talk to the business and focus on a particular pain that is keeping the line of business person awake at night.

Using a business modeling tool like WebSphere Business Modeler to capture, simulate and optimize the process, the business benefits can be made clearly visible.

The business process, which will be executed by WebSphere Process Server, will drive what services need to be integrated into the process so this puts the business in control and allows IT to respond rapidly.

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One of the ways that we let people integrate with the process is through the use of WebSphere Portal Server and forms and portlets supported by WebSphere Process Server.

BERNSTEIN: What is the relationship of people to the business process?

SIMONS: Well, whenever we run a business process, no matter how fully automated we want that process to be, there will be times when we just can't avoid people involvement -- not that that's a bad thing -- to handle exceptions when things go wrong or when escalations are required or in critical situations which are not foreseen at the time of modeling the process.

So people should be seen as one of the most important corporate assets. When we create a process, we need to capture the process expertise and their knowledge when handling claims particularly of a personal or sensitive nature, people are required.

When providing a call center service you often need to speak to a real person. So people are both consumers of the process and participants of the process.

BERNSTEIN: Mark, can you tell us how WebSphere Process Server handles the complexities of people and human work

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flows?

SIMONS: Sure. I mean there are two main elements to this. The tools like WebSphere Business Modeler and WebSphere Integration Developer, and the runtime WebSphere Process Server.

Let's just focus on the tools, as this is where the Integration Developer sees and integrates the people into the process.

WebSphere Integration Developer is the one tool requiring just one set of skills for end-to-end business integration, which, as we call it, discovers and exposes assets to services, rapidly creates new business processes and transforms and weaves information between the services.

The developer wires the services together filling in templates to define logic, conditions and business rules, no coding required. And when integrating people and human work flows, it's extremely versatile and flexible.

You can distribute work like to a group of designated people to either complete the tasks, sub tasks, and be alerted when it's complete.

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Distribute quantities of work across a group which is then balanced based on workload. You can even have that task list automated so when one task is complete the next task appears automated by the server.

First two workers can be defined so if the recipient is not available, the substitute receives the work. You can even specify for [third available users] for certain tasks, apply workplace management policies to reflect organizational structure and schedule their implementation.

I guess one of the biggest challenges that I alluded to earlier is not being able to plan for every conceivable situation. Quite often you may need an additional unforeseen task to be done. Again, the WebSphere Process Server allows a manager to schedule that task be done by a particular user and set the priorities of that task.

The user interfaces to these processes and tasks through a variety of ways. Forms for business use can be generated with literally a single click on the menu. Processes could be managed, monitored and operated through Web browser interfaces. Custom client interfaces can be built; and of course, you can use WebSphere portal to provide a window to your processes.

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So these are just a few of the people capabilities provided by WID and Web Process Server. That might be the right moment to look into what WebSphere Portal and forms provide from a people integration perspective.

BERNSTEIN: Thank you, Mark. Now I'd like to turn to Paul Chan. Paul we just talked about how people interact with SOA processes. Electronic forms is a common way for people to interact with a business process. What's the relationship between forms and SOA?

CHAN: Sure, Beth.

When IBM talks about electronic forms, we're talking about intelligent XML-based forms that are strongly aligned to a business process.

So forms are really a perfect fit with SOA-based process applications. There are four main points worth noting about electronic forms and SOA processes.

First, forms are an entry point for getting started with SOA. They're really the most prevalent way to initiate a known process and have a very compelling ROI. The second point is forms represent an industry on-ramp to SOA.

So forms can enable standardized industry processes and transactions and this can help drive down costs and

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create efficiencies across industry participants.

The third point is forms represent the most common user interface for people and to processes to collect and share process information.

Workplace forms creates a personalized experience for people working within a process, and this creates people productivity efficiencies within the process itself.

And finally forms are themselves actually a service. Forms act as a gateway between people and the information and systems that automate a business process.

So let's cover each of these areas in a little more detail to dig underneath of them. Most organizations are very aware of the traditional costs associated with forms. But most are surprised at the amount of processing savings available. The return on investment is very compelling for many of these forms-based SOA process applications.

Gartner believes that intelligent XML e forms are process enablers, meaning that XML e forms can help accelerate and ease the ability of organizations to move along the continuum of process automation depicted in this chart thereby accelerating the processing and savings and

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increasing the ROI.

Most organizations have most of their forms processing in the simple areas designated by the 1 and 2 on this graph.

Both IBM Workplace Forms and WebSphere Process Server together enable organizations to more easily move to SOA applications that achieve greater levels of automation, and the flexibility to drive the most value from any SOA business process. This is shown as the orange process-centric applications in this chart.

It should be noted the reason that Gartner believes XML e forms are such an important process enabler is that they can include intelligence about the process that improves the efficiency in capturing the right information at the right time for a specific process.

For example, if I'm applying for a mortgage and I check the box in the application form that says I have a spouse, the form may then proceed to ask me if I want the mortgage to be a joint application.

If I say yes, then the form is smart enough to know that the downstream processing of the mortgage application will require income and work history information for my spouse to feed the credit rating agency as part of the overall mortgage approval process that typically

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WebSphere Process Server could be used to manage.

Electronic forms are the most common industry application. So it follows that forms represent an industry on-ramp to many SOA processes. Again, this chart, if you need to enlarge it, please use the magnifying glass, it will make it easier to see.

Forms are key to core processes and industries such as banking, insurance, life sciences, healthcare, government and manufacturing. And of course there are many forms-based processes that are cross industry such as human resources and purchasing.

In fact in many industries there are industry-specific XML processing standards that have evolved for compliance reasons or to lower the cost of transaction processing within industries and across industry participants.

Examples of this are organizations such as Accord, for insurance transactions between agents, brokers and insurers, or [Mismo] for mortgage applications in banking.

A key point on people's entry point with processes is how easy they are to use. Here Workplace Forms excels since they are optimized with people's interaction for process.

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One of the unique aspects of work-based forms is each form can represent multiple personalized views of the form's data and information. For example, a pixel-precise traditional version of the form for compliance and record keeping can co-exist with a wizard version of the form.

A form wizard is really a personalized set of guided interview screens that are customized for the user based on user input, existing information such as customer data and business rules that govern the form filling experience based on the business process itself.

This is similar to tax preparation software that tries to simplify the confusing world of tax forms during the annual tax filing process.

For example, a wizard can be used to give vice president of finance a unique view of purchase orders that require his or her approval whenever a purchase order is over, say, 100,000 dollars.

No one else in the organization may need this view of a particular purchase order except the VP of finance. So the form truly becomes optimized for the people entry point into this particular process.

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External information is also used to drive this type of dynamic user experience within a form. So for example, information from other port lets within WebSphere Portal can drive the information viewed or required within a form or an external Web Services call, for example, can automatically update a form to provide a real-time update that drives the behavior of a form.

It is this type of dynamic real-time personalized user interface that allows Workplace Forms to be optimized for a process to ensure the right information is collected at the right time within a process.

My final point is around standards and how e forms are in fact a service or a gateway between people and process information.

Workplace Forms is based on open standards such as the W3C X form standard, which is the next generation of Internet forms that involve HTML to standard XML technologies to represent forms and their data.

So a unique aspect of the X form standard is that it provides a standard way to model the business rules formatting and mandatory and optional data for a form in XML.

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This enables industry associations to model the rules and the data associated with the form and to share this form across the business process and its participants.

This simplifies the processing across organizational boundaries and also for the creation of reusable forms components in the same way SOA provides a level of reusable services to improve business agility.

The end result is that the cost to deploy a forms-based process is reduced, and solutions are more agile and forms are interoperable so that they can be processed across organizations and different devices.

So in conclusion, forms really does represent a unique and powerful people entry point into SOA working with both WebSphere Process Server and WebSphere Portal to bring people into a process.

BERNSTEIN: Okay. Thank you very much, Paul.

Finally, I'd like to turn to [John Raslowski]. John, can you explain to us the role of portals in SOA and how they integrate people and the process?

JOHN: Absolutely, Beth. Thank you.

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As you've heard from both Paul and from Mark, there are a lot of things that happen on the back end. And what's the easiest way to expose some of these new innovations, some of these new technologies, some of these new smarter, more intuitive ways of getting work done, whether it's a process or whether it's filling out a form or engaging in a work flow process. It's through a portal.

Now portals are very unique because they allow me to do some very interesting things. I can bring in systems and services from many different parts of my organizations as well as integrating things from outside my organizations, meaning leveraging in the true sense of Web Services.

And there are different parts to it. There's the user interface service, which actually allows me to define how the user interacts with all these different systems.

There's the user interaction services which I as the end user can then take one step further and personalize to meet my specific needs.

Now, Beth, you mentioned this earlier in the introduction, that the line of business is now becoming the driving force behind some of these SOA initiatives.

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Probably the most effective way to showcase this from an IT organization is through a portal because that's ultimately what the end user sees.

As well as, then being able to take some of those portals or some of those applications that I've been able to put into a portal and be able to deploy them to other devices that are not necessarily standardized.

For example, whether it's a Blackberry or it's a Web-enabled cell phone, through a wireless perspective, whether it's some of the new PDA devices all the way to something as unique as either a vending machine or possibly even a cash register.

I can now extend my applications, my work flows, my forms, to all of these devices whether there's a standard browser or non-standard browser.

And if you look at in the industry as a whole, you'll see on the next slide that Gartner actually, and specifically [Gene Pfeiffer] made the prediction a few years ago that portal will be the first way that you will interact with your SOA environment, because if you think about it, SOA there's a lot of back end work.

It's doing integration, it's building the infrastructure,

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it's expose the infrastructure. It's turning things that were typical traditional single user, single interface applications into services, reusable services.

And the best way to expose them is through port lets through a portal because now I can let the end user, the ultimate consumer of these things to be able to tie them together because they're the ones that have the business need for it to say, I need data from here, work flow from here. I need a process initiating component like a forms package to start this thing off.

And if you look at some recent work by Forester Research, they've even gone on to make the comment that going forward, composite applications are going to replace how applications are written in the future, where we're no longer going to start this development process from scratch.

It's being able to reuse what we already have but simply applying a new programming standard, a new set of tools, a news set of not end user interfaces but a new set of back end service interfaces and then expose them through a portal.

So if you look at how all this comes together, the portal provides that ability to bring all these different

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components together, whether it's existing applications, whether it's new technologies, it provides a focal point.

So picture, for example, you're in a portal. You have your main focus right in the middle. As an end user that's what I need to be doing at that moment in time.

And around the outsides, I have other port lets that give me, provide the ability to have peripheral vision -- meaning, give me the ability to make a more educated business decision about that piece in the middle.

And now that entire page becomes a template or becomes a work space where now I can define that work space based on my role, based on the community I belong to. Based upon a project I'm involved in, or based on just an area of interest in the company, or something as internal as an HR page.

I can switch and I can manipulate these pages, and I could move things around, but still have access to all the data and all the information that has been exposed through the SOA initiative.

And then extend this out like I mentioned earlier to some of these different devices whether it's a rich client, whether it's a standard browser client or any type of

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mobile devices.

And probably the biggest reuse component of all is the ability to now take these portals and point them to different constituencies within my organization. It isn't only an internal portal, but I can now extend it to my customers so I can have a business-to-consumer type of an initiative.

I can also have a business-to-business type of initiative and involve some of my partners, some of the folks that help me drive my business, help me sell things or provide me services.

It's this concept of reuse, this concept of an adaptive user experience that makes it easier now to interact with all of those wonderful things that I've exposed inside my IT organization.

BERNSTEIN: I would like to thank our presenters, Mark, Paul and John, for being with us. There's information on your screen if you're interested in more information. And hope to see you all again online soon.

[END OF SEGMENT]