What’s Up With Business Processes in the Cloud

Business process management software and cloud computing make a fine pairing, and organizations are right to salivate over the potential benefits. But first they need to examine whether any move to the cloud is the right fit. 

BY STEVE WEISSMAN
What You Want vs. What You Need

Cloud computing and mobile services are evolving almost daily to keep up with customer demand. Subsequently, consumer options have become seemingly limitless. Every day a new version or update keeps customers wanting and buying more. And why not? Using cloud-based applications can bring dynamic process improvements with lower technology costs.

But before rushing out to buy the latest and greatest, review your business needs, says consultant Steve Weissman. In this three-part guide, he’ll show you how to do just that. First, he provides a list of considerations you should start with when looking to the cloud. By factoring in existing skills, financial stability and anticipated goals, you can better decide on the cloud options that make the most sense.

Next, Weissman warns against driving the business forward without first taking a holistic approach to managing needs. If cloud, social media and mobile updates happen to be beneficial, then all the better. But updating for the sake of having the latest technology can put your business in jeopardy, financially and culturally.

Finally, learn how to move forward with cloud computing after assessing business needs. Start by learning from past mistakes and creating new ways to make development processes easier. From general business processes like invoicing to more complex ones like coding, opting for cloud can alleviate many aches and pains.

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Survey Business Needs Before Jumping to the Cloud

You are probably familiar with important cloud computing selection criteria such as security, architecture, performance, reliability and interoperability with your internal systems. But there’s one factor that should matter most and is surprisingly absent from many conversations: the business conditions that put the cloud on the table in the first place.

For many organizations, the cloud surfaces as an option because “everybody’s doing it”—the worst reason to pursue an information management strategy. Better is a progression that begins with business and technology managers realizing they need either more computing capacity, or new or updated applications—and then sitting down to figure out how best to pay for it.

The question for organizations is one of build vs. buy vs. rent as costs are calculated and compared: developing their own systems, licensing prepackaged software from a vendor or signing on to a cloud service to handle the heavy lifting.

This decision is informed by many factors, including the following:

- **Existing skill sets.** Do the people we already employ have the knowledge required to develop or support the software we need, or do we have to hire temporary or permanent help to get the job done?

- **Accounting practices and limitations.** Are we subject to a freeze in capital spending, which is how we account for our big software acquisitions, or should we leverage the cloud, which is a monthly operating expense? Does our budget better accommodate one model over the other?

- **Anticipated growth.** Will the applications serve roughly the same number of people in the future as today, or will it be rolled out to more
of the organization over time, thus making licensing terms and pricing trickier to navigate?

Getting a firm fix on the underlying economics of your situation is critical to making a smart decision. But this is often lost in the glare from the latest shiny piece of technology.

**WHAT’S THE NEED?**
Another conversation that must be had is about what’s intended to be hosted in the cloud. Having it will stave off the temptation to rush to cloud computing because it’s “cool” and then figuring out which capabilities you want and need. Here are some common lines of thought and questions you should ask:

- **Storage.** Do we want more virtual space to store our documents, data and images without simply buying more capacity outright?

- **Applications.** Are we looking to begin using new kinds of point systems (for sales, human resources) to replace or complement the applications we already have?

- **Hosting.** Is our strategy to outsource operations (like IT) that are not core to our business in order to concentrate on what we do best?

The challenge here is individual cloud providers are always expanding their service catalogs to provide an ever-wider range of functionality. Understanding what you need means you will be better able to navigate the choices and resist being distracted by features that sound great—and are great, really—but aren’t necessary.

**CONTROL IN THE CLOUD**
How much control can be exerted over a system—and how difficult that control is to exert—is part of any technology decision. But there’s an extra wrinkle when it comes to the cloud, and a significant factor boils down to the people whose names are on the letterhead and their comfort with whatever level of exposure they feel.

- **Corporate culture.** How open is our management to relying on an application that lives
behind somebody else’s firewall? How transparent is the cloud service in its reporting? What are the limits of our intervention should something go awry?

- **Ownership.** Who owns the information we place in the cloud? Who’s responsible if there’s a security breach? How do we get our data back if the provider goes out of business?

- **Compliance.** Can our potential cloud partners adhere to the same rules and regulations we’re subject to? Can they guarantee compliance with any international requirements we must heed?

The first of these categories may be the most difficult to manage because of how steeped it is in human interpretation and behavior. To be sure, the others are affected by people’s perspectives and experiences. While economics lends itself to measurement, and user needs can be described by consensus, how someone feels about control is highly individual and decidedly emotional—not only for your organization but for your cloud partners as well.

**ENTER BPM**

One popular function to be considered for the cloud is the holistic management approach called business process management (BPM). Frequently, carrying the label “business process outsourcing,” BPM in this context focuses on applications like billing, marketing or HR automation, which are tightly defined and thus better fit into the strategy laid out in this article.

The big questions here often are whether the business rules, process registry and reporting engine should be hosted in the cloud. Because not everyone is comfortable placing these behind somebody else’s firewall, the discussion must be held to determine whether such feelings should outweigh the opportunity to save money or fill a need—or both.

In the end, the decision to adopt a cloud strategy must be driven by the business need. This provides a real advantage since it narrows the field of inquiry to specific departments or organizational roles. This not only helps ensure that your technology infrastructure throws off as much value as possible but brings critical objectivity to what otherwise can be an emotionally charged evaluation.
New Trends, Same Processes

**Mobile, social media** and the cloud are three business and technology forces expected to drive change in enterprises in 2014. Advances in these areas shouldn’t directly affect processes, however, unless there is a compelling reason for them to do so.

Smartphones are taking the enterprise world by storm. The ability for people to participate in business processes without having to be in the office or use a conventional computer is life-changing. Mobility opens the door to applications that were once unrealistic.

Social media tools are proving to be equally transformative but in a softer way. Such devices have more to do with communication with humans than connection with systems. Much of what makes for good business processes is their ability to automate the movement of work from one station to another and notify folks about changes in status—or the lack of them. This works on a systems level, such as when an automated alert is sent, and humans can benefit from it. Knowledge workers requiring additional expertise to make a decision, develop a forecast or analyze a customer account can use their company’s internal social profiles to identify other people who may have something to contribute. Externally, social media tools can be used to communicate with customers and get feedback on matters that may affect them.

The cloud is a good alternative for organizations that don’t want to upgrade or maintain their own systems, or are seeking a different financial model to facilitate operational or
financial flexibility. It is important, however, to consider the pros and cons of using the cloud.

Mobile, cloud and social media technologies exert a gravitational pull on business process management (BPM), yet none of them directly have anything to do with process. They can make your process run better, faster or more efficiently, but they are simply among the tools used to facilitate work.

Process-critical information is communicated through a smartphone or tablet, using a mobile network. Workers update colleagues, managers and customers via text, instant message or private tweets. The engine used to power this process may be cloud-based, like Salesforce.com, or internal and proprietary, but the lesson is the same.

Don’t let the excitement of BPM drivers take away from the essence of the task at hand and why it’s being done. It’s great if mobile, social and cloud capabilities enhance processes, but it’s a mistake to charge off after one or all of them just because they exist.
Business Reinvention Trumps Cloud Concerns

On-premises deployment of business capabilities takes more time than many organizations can spare—and it’s costly. As a result, the quest for reinvention is starting to overcome the perennial concerns about security in the cloud, said Michele Cantara, an analyst at market research company Gartner. She expects that by 2018 most strategic and differentiating services will depend on the cloud. “Business reinvention is going to depend on the ability to manage business outcomes from outside service providers.”

By provisioning business services in the cloud—often called Business Process as a Service (BPaaS)—organizations can reduce the time and resources required to take advantage of new opportunities or respond to a shifting compliance landscape.

Cantara said there is confusion between BPaaS and Software as a Service (SaaS) because they sometimes use identical software. The main distinctions are the differences in the type of service-level or contract agreements that a user will have with a service provider. With SaaS, the focus is on requirements like uptime and availability. With BPaaS, the focus is on outcomes such as customer applications processed correctly or the number of customers acquired.

Covering the Unknown

The ability to respond to the unknown is critical to the insurance industry. For example, Crawford & Co., the world’s largest independent provider of claims management services for insurance, needed a way to quickly ramp up technical and human processes in the wake of major disasters like hurricanes and earthquakes. After claims were resolved, they also needed to be able to ramp operations down smoothly.

To address these needs, Brian Flynn, CIO
at Crawford, decided to deploy a cloud-based BPaaS using Appian’s BPM technology for its desktop and claims adjustment applications. The platform allows for members to have access to discussion forums, internal instructions for disaster-related events and faster customer service options.

This approach accelerated Crawford’s operations by as much as 80% by reducing the number of touches per claim from 174 to 33. Invoicing speed was likewise accelerated by 70%. The average time between a claim site visit and a report shrunk from two hours to 43 minutes.

“Using our traditional tool set and methodology, it would have easily taken twice as long to deliver this functionality,” Flynn said.

A NEW ARMY OF DEVELOPERS
Some of the promise of business process management (BPM) was the idea that businesspeople could do more development. “It is slowly getting there,” said Clay Richardson, an analyst at Forrester Research. Today customers have more ways to make their praise or complaints known—and that’s driving the need for more configurable BPM or configuration-driven application development platforms.

BPM in the cloud is attractive to many people because they can try out the software before buying in. Customers thinking about BPM use cloud programs to do pilots. This is the dominant pattern, Richardson said.

And “smart process apps” that live in the cloud are picking up steam. These are vertical or horizontal applications like invoicing, quote-to-cash or call center processes; traditionally, companies would buy packaged apps. “We are seeing BPM vendors building these vertical solutions in the cloud on a subscription basis,” Richardson said.

For example, vendors like Kofax have offerings in the cloud that allow businesses to subscribe to prebuilt apps with processes underneath so they can make customized changes as needed.

“The business is saying we need these apps. Putting them in the cloud means we won’t have to deal with it and the associated infrastructure,” Richardson said. “These smart process apps in the cloud are where they can continue to evolve.”
LEARNING FROM MISTAKES
The goal is not necessarily defect-free software, Richardson said, but building process and software at the speed customers move. The goal is to put things out, test the new processes and improve upon them. There is less emphasis on completely defect-free and more emphasis on getting something out and learning rapidly.

Part of this is about segmenting your customer-facing applications to customers that are more open to trying new things and focusing on them. Not every application will follow this test-and-learn model.

As you get closer to customer-facing apps to learn about what customers want, don’t screw up the basic user-interface capabilities like Global Positioning System functionality.

“Customers are more forgiving if you don’t get the sequence of tasks right when you are experimenting,” Richardson said. “If you have a complete task and give them a longer sequence than required, they will not decide to abandon the tool. But it is important to work with a segment of customers that know you are building a new service.”

The notion of design thinking is about creative experimentation. In the context of process management, organizations are using lean startup strategies. The idea is not to have perfect software but to learn and integrate the feedback into a better version. It is important to look at the elements you are trying to test, build it and then improve on it in response to customer feedback.

MANUAL EFFORT REQUIRED
In theory, automatically creating a process model of the existing software architecture would make it much easier to understand and change the process. Tools for doing this process mining include Software AG’s ARIS, Fujitsu’s Interstage BPM and Lexmark’s Perceptive Software technology.

This kind of capability is immature. “We have seen some tools for basic monitoring of how applications interact,” Richardson said. “But we have not seen much automation for surfacing up how the processes work in the larger context of the enterprise.”

The tools for doing automated process discovery can look at transaction logs, and process
models can look at data that represents transactions and give a representation of the process. “But these don’t surface how the process is operating and how these systems are working together very well,” Richardson said.

Consequently, you should plan to invest considerable effort in creating these models manually—or in calibrating the results of tools to develop models that will be useful for improving the underlying enterprise software.

**RETHINKING APP LOGIC**

Historically, companies would build policies into the application logic. Now they are starting to move to BPM and business rules to allow greater agility. This allows them to make the changes more configurable. Instead of having the rules buried in code or Java, the business can be more involved in driving the change. “You don’t have to have a coder make a change at a deep level,” Richardson said.

This approach allows a businessperson to change the rule by walking through a few steps or adjusting the process model. It can cut the amount of time to make a change to a third of how long it would normally take. There are limits with existing technology to dynamically recode the underlying applications. But organizations can take steps to make it easier to change business processes with less impact on the underlying code, allowing business managers to experiment with new features with less risk of breaking existing applications.

The first step is for the team leading process change to work with the compliance group to identify changes that happen frequently. It involves modeling out the business process and identifying points where compliance changes can affect the process or the flow or business functions. These are often referred to as “flexi-points.”

Look at the process model to identify flexi-points to see where compliance has changed or where it is expected to change on a more frequent basis. It’s smart to look at where rules might be buried in code and rewrite these parts of the application so that they can be adjusted in a tabular format. “It’s almost like an archaeological dig,” Richardson said.
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