

Strategic business process management in the cloud

Optimize business processes in the cloud with intelligent business platform



“The rise of the cloud is more than just another platform shift that gets geeks excited. It will undoubtedly transform the IT industry, but it will also profoundly change the way people work and companies operate.”¹

—Let it Rise, The Economist

Without strategic business process management, the cloud remains a passive environment that undoubtedly saves you money and eliminates some of the operational issues, but does little else. The cloud without process cannot deliver on the promise of outside-in business transformation.

Abstract

With the complete fusion of technology and the modern enterprise, technology and business have become inseparable. In other words, technology is business and business is technology. Together, they are required to address the larger world and its bigger society, in which a business must operate. Today, that larger world has changed as a result of the hyper-connectivity of the Internet that, in turn, has given rise to total global competition and social networks where the future is being discussed, debated and transformed. You live in this new age of global hyper-connectivity; therefore, where and how you conduct business is of prime importance. That **where** is in the cloud and the **how** is socially-driven, business process management (BPM), for business processes are how work gets done.

Although, with tactical deployments of BPM, you can achieve greater efficiencies in how work is done in the back office, **strategic** BPM helps you connect the dots within the entire value delivery system to deliver compelling value to customers at **moments of truth**. Strategic BPM is how the work of business innovation is done; it is about efficacy, not just efficiency.

The excitement associated with cloud computing is not about **on-demand IT**, it is about **on-demand business innovation**, powered by BPM in the cloud. The focus of business leaders is about being **transformational** not just **transactional**.

Next generation BPM: The intelligent business platform in the cloud

People often talk about intelligent business operations in the wired world. However, there is more to intelligent business operations, there is the intelligent business itself that requires a strategic **intelligent** Business Platform (iBP). In addition to handling operational requirements through process management, **strategic** BPM in the cloud will enable the automation of **business leadership activities** to tie policy and strategy to business outcomes. This capability is vital because of today's radically shortened strategic planning cycles where strategy must be changed weekly or daily. The days of five-year plans are no longer relevant.

Indeed, today's business environment is characterized by a new generation of **smarter processes** that can power a breakthrough iBP, a **business operating system** that goes beyond operations management and on to **strategic business management and transformation**. Some iBPs might indeed be frameworks for specific industries. *The Economist* on cloud computing stated,

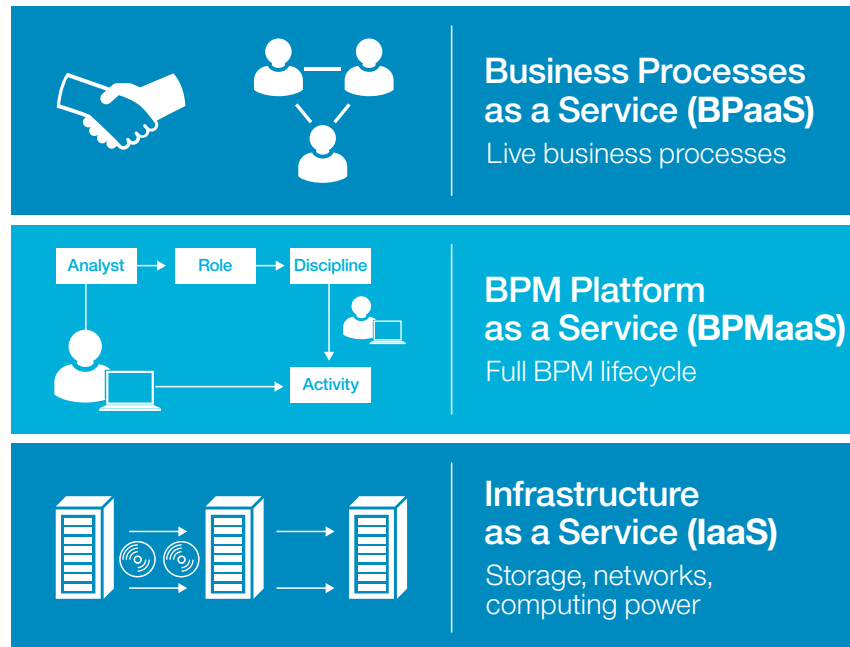
“In the future, huge clouds—which might be called ‘*industry operating systems*’—will provide basic services for a particular sector, for instance finance or logistics. On top of these systems will sit many specialized and interconnected firms, just like applications on a computing platform. Yet this is only half the story. The cloud changes not only the plumbing and structure of firms and industries, known as the ‘transactional layer,’ but also their ‘interactional layer,’ a term coined by Andy Mulholland, coauthor of *Enterprise Cloud Computing*. He defines this as the environment where all the interactions between people take place, both within an organization and with its business partners. Despite all the technology that has entered the workplace in recent years, so far this interaction layer has not really changed. PCs certainly made people more productive, but most of their programs were not designed for collaboration. The enterprise applications they worked with were still centralized systems. And email has in some ways made things worse as the flood of messages takes up lots of time and attention.”²

Is cloud computing something new? Cloud computing is not a new technology. It is neither a new architecture nor a new methodology. However, cloud computing is a new delivery model where all computing and networking resources are provided as **services** that are elastic, extensively scalable and available on demand with self-service, pay-as-you-go and variable-cost subscriptions. The central concept and language used for cloud computing essentially relates to supplying **Everything as a Service** (EaaS). You can apply this principle to business processes and business process management as well.

1. Infrastructure as a Service (IaaS). IaaS is the base-level provisioning of pure technology elements including processing, storage, networks and other fundamental computing resources. These elements most commonly referred to as a hosting service provider, offers so-called **virtual machines** on demand with payment based on the amount of usage. As a result, you avoid the time and cost of procuring, provisioning

and installing actual physical machines at the client’s premises and you can make available what behaves as a single machine across the Internet. The term **virtual machine** means that a portion of a server farm or compute grid is made available as a **separate** machine from the user’s perspective. In the IaaS model, each increase in required capacity is matched by an increase in the resources made available and the resources are removed when they are no longer required, which means that you can achieve **rapid elasticity**. Services are billed only for the resources consumed, which might include combinations of CPU hours, millions of instructions per second (MIPS), bandwidth and storage. Managers at companies are always looking for ways to run existing systems that decrease the cost of providing technology infrastructures, which usually means running your business on IaaS.

2. BPM Platform as a Service (BPaaS). This capability, which is the chief element of the iBP approach, provides the user the means to develop and **manage** business processes using BPMS tools supported by cloud services. The user does not manage or control the underlying cloud infrastructure that is IaaS, but the user has control over the BPMS and the deployed business processes (BPaaS). With BPaaS, you are introduced to the next level of sophistication by moving beyond basic technology elements that must be configured into operational systems or platforms. With BPaaS, you can load **services** as opposed to applications directly on to the platform. Such platforms can be pre-configured to support specific industry frameworks in a **standard** hosting environment. BPaaS platforms can be built for specific use by an industry or an enterprise, complete with management and governance capabilities. However, the most common type of BPaaS is the type that provides a chief set of services to which a wide range of additional services can be added to use core services. Further, it can be extended with **processes on demand**. Of great significance, BPaaS can help you **scale** and incorporate **big data, mobile and prescriptive analytics** into live business processes.



The three types of service delivery models

3. Business Processes as a Service (BPaaS). BPaaS delivers the **live business processes** used by customers, suppliers, employees and trading partners to get work done. These live processes are deployed on a scalable cloud infrastructure and are instantly accessible from various client devices through a thin client interface such as a smartphone or a tablet; think of IBM® MobileFirst. BPaaS is the delivery of user business processes as **services** that are grouped to conduct the required end-to-end process functionality. In this layer, highly important business differentiations are found.

The real driver for BPaaS is the **edge of the enterprise** where business users require a flexible model to deploy new technologies to improve **front-office** performance. The key significance is that while IT has a major role in the enterprise

back office including transaction processing and systems of record, these new requirements are directly associated with **go-to-market**, customer-facing, moments-of-truth activities. In addition, these requirements will be subject to constant change driven by the nexus of forces: mobile, social, analytics and cloud. Forrester Research calls light-weight mobile processes **smart process apps**.³

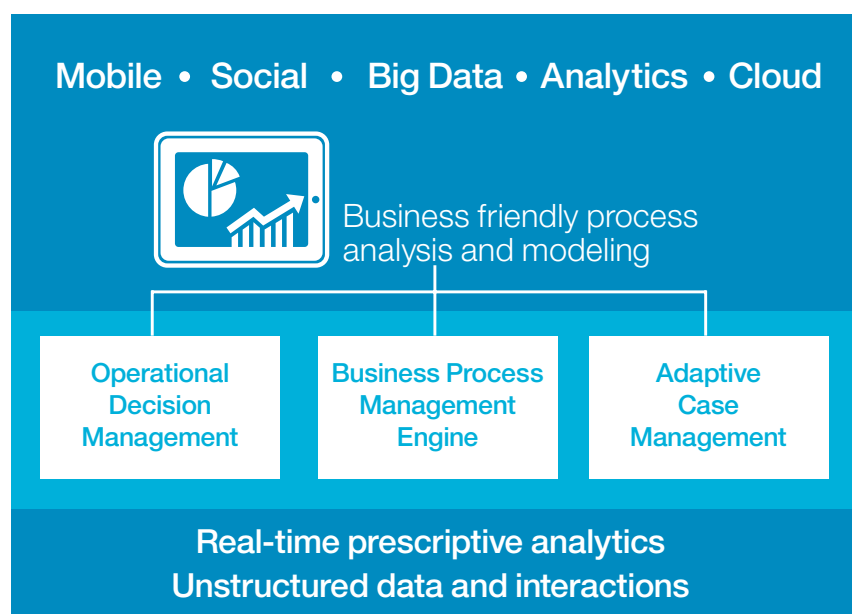
You must address these new customer-driven requirements in near-real time using operational decision management for competitive purposes. They are likely to last for only a few months, or few days, or even a few minutes when processes are mass customized. The costs will be directly attributed to the business units that use the necessary business processes and will be based on **outcomes** instead of resource costs.

Today's customers expect a personalized and higher quality service at every touch point. Therefore, employing a **smarter process** is extremely important. A smarter process is a combination of BPM, Operational Decision Management (ODM) and Case Management with decisions and rules, analytics, monitoring and process discovery. Smarter Process is about how effectively you use your human resources, partners and technology to cater to growing customer requirements and support increased sales that potentially lead to greater business returns. With smarter process, you can use valuable insight to deliver relevant services faster and more efficiently. You can prioritize customer requirements and provide a more seamless experience in every interaction with your customers.

To achieve these objectives, the iBP has two extensions to what is traditionally thought of as a Business Process Management Suite (BPMS) or **BPM engine: Operational decision management**, which is the next evolution of business rules management

for applying big data and real-time, prescriptive analytics to real-world events. The second is **adaptive case management** for human-to-human interactions. Agility in the frequently changing global economy is all about human-driven business processes, human-to-human interactions that include unique case management, ad-hoc collaborations, the wisdom of crowds and marketplaces of ideas. In addition, agility includes dynamic and just-in-time sourcing from networks of far-flung suppliers, complex sales proposals, open innovation collaborations, new product development and the like. BPM with adaptive case management in the cloud is how you can capture the value in these interactions.

A critical element in the iBP is a business process analysis and modeling capability. This capability is designed to help business professionals record, automate and **optimize** their business processes and integrate social networking principles that can help them collaborate in their tasks.

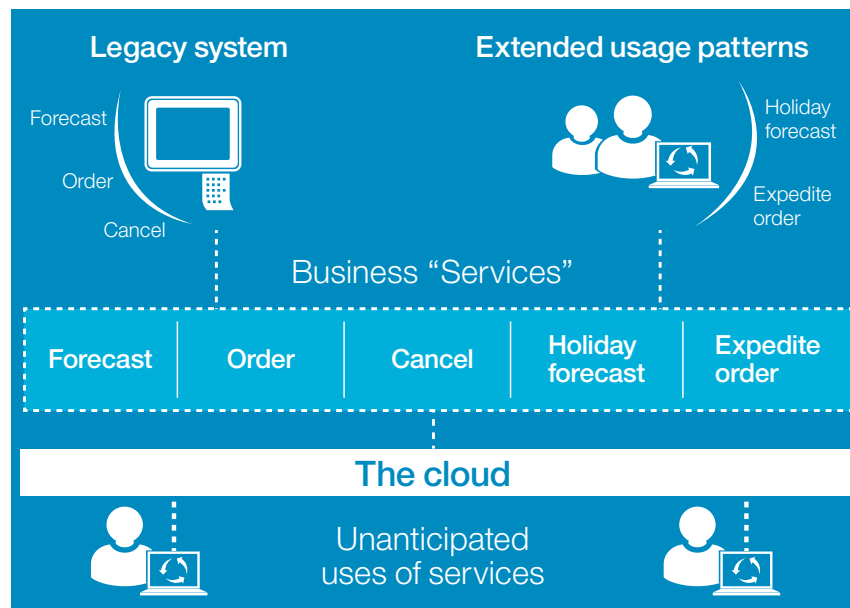


The business process analysis and modeling capability helps you connect and collaborate with the relevant knowledge workers to invent new processes and test them in a **sand box**. Such collaboration is the key to business innovation, for innovation is about new ideas, which no one else has explored. Thus, **failure** is part and parcel to business innovation. Innovation is not easy; it involves trial and failure and trial again. The ability to fail fast and learn from such efforts is how true innovation can be achieved.

So, what makes the **iBP** different from former technologies? The combination of the high availability of cloud infrastructures at a low cost and innovative cloud services means that the IT team at an organization requires a **process** layer in the cloud to deliver useful business advantages. Without this capability,

the cloud is more likely to be used just to provide data center elasticity and Software as a Service (SaaS) capabilities rather than a way to innovate and gain optimum advantage from technology. At this stage, business process management becomes relevant.

Developers at organizations who understand the benefits of cloud realize that they have to create a **process layer** that decouples the control of business processes from underlying applications. In other words, process segments buried in traditional computer applications must be rendered as **services** that can be bundled, unbundled and rebundled as end-to-end business processes. In the same way that middleware provides a data abstraction layer, an iBP provides a process abstraction layer that delivers business services when and where they are required, even unanticipated uses of services.



In short, an iBP, can help professionals at organizations deploy, run, measure, manage and optimize their business processes in the cloud. When properly implemented, an iBP can help managers pin-point and resolve process bottlenecks, monitor and anticipate business activity and quickly react to the constantly changing business environment.

Many industry analysts recognize process technology as one of the most important software technologies required to deploy effective cloud solutions. There are two clear reasons why process technology is necessary to strengthen the provisioning of business systems in the cloud:

- 1. Rapid innovation:** The cloud is the ideal mechanism for using extensive computing power—be that storage or specific applications such as CRM, ERP or SCM. As it stands, running a given application in the cloud, also known as SaaS, helps you save costs. However, SaaS solutions do not help you innovate because all companies using a SaaS application are using the same software. SaaS solutions do not enable developers at companies to build differentiated applications in comparison to their competitors. Process management technology, on the other hand, helps you achieve this objective in an easy and flexible way. An iBP is designed to orchestrate the interaction and integration of services to create and manage distinctive business processes.
- 2. Compliance:** Cloud deployments can be very disruptive and can lead to a breakdown of corporate governance and compliance. Think of the myriad of Microsoft Excel spreadsheets that are used to run most businesses; without Microsoft Excel, there is no control, no compliance, no ownership. With process enablement of these types of applications, you can provide ownership, control and auditability and comply with the corporate governance demands without affecting innovation.

Before the availability of iBP, enterprise applications typically were designed to manage their localized sets of processes with the subjugation of adjacent applications to these processes. With every application handling a given process differently, clearly the older enterprise applications will not be a workable solution in the cloud. With an iBP, the control of business processes is externalized away from individual applications. The iBP is designed to control the execution of processes, the provisioning of services and the delegation of tasks or activities to the individual applications according to their specific uses and needs.

To conduct these tasks effectively, the iBP must be able to support the following:

- Manage applications in parallel and in series
- Manage people-intensive applications
- Decouple the process from the application
- Work both inside and outside the organization
- Be both continuous and discrete and allow processes to change over time
- Empower business users to control business processes

One of the key innovations, out of many, is the **collaborative** nature of the platform. Finally, an IT environment enables and encourages professionals from business and the technology world to be aligned. Given that the business process is where these two worlds come together, the iBP is the common point where the people from the two worlds can achieve the most in terms of collaborative development and common understanding. With this approach, you can eliminate decades of misunderstanding.

The iBP conducts the following six main tasks:

- Positions existing and new application software under the direct control of business managers
- Facilitates communication between business and IT
- Helps business leaders to improve existing processes and create new ones
- Enables the automation of processes across and beyond the entire organization
- Provides managers real-time information on the performance of processes
- Enables leaders at organizations to take full advantage of new computing services

Unlike early BPM offerings that were combined from fragments of older technologies, an iBP must be built on a standards-based, modern architecture. With service-oriented architecture (SOA) and full BPM capabilities, developers at companies can create a complete business operations environment that can drive innovation, efficiency and agility with EaaS.

The iBP must include business process modeling and design, execution, monitoring and improvement capabilities. In addition, the iBP must be designed to help business managers directly align business process implementations with business goals, while facilitating process improvement through control and visibility into process metrics and real-time business activity. At the same time, the iBP must help IT managers and developers to model and integrate the entire enterprise business process landscape, while ensuring that existing IT assets are fully employed.

The user interface must be completely Web based such as that of IBM MobileFirst's to collaborate more easily, especially if business and IT professionals reside in multiple geographical locations and use multiple mobile devices such as smartphones and tablets. A shared process model defines the **contract** for

process implementation, which is fulfilled by connecting top-down business process design components to bottom-up technical services. This approach puts the business firmly in charge by empowering business professionals to directly influence and control IT implementations. Furthermore, with the iBP approach, business managers and business analysts are confident about their models being up to date and reflecting actual deployed processes.

Finally, the iBP must enable comprehensive process auditing that helps decision makers to achieve better process governance. Such auditing is necessary to better comply with external and internal regulations and quality initiatives, such as SOX, Six Sigma, HIPAA, or Basel II. From an architectural perspective, the iBP must be fully cloud enabled with ways of metering and monitoring what is happening and where it is happening. In short, an iBP must be fully deployable in private, public and hybrid clouds.

In summary, the iBP is a fully integrated SOA and BPM platform designed to model, execute and monitor all types of business processes, including human-to-human interactions, system-to-system integration-type interactions and hybrid processes that involve both humans and systems. With SOA layers, you can enable IT to become more flexible and agile to meet business demands more effectively. The iBP can enable business professionals to gain better visibility over business processes and to transition their requirements to IT with greater confidence.

Innovation as a business process

"Since innovation fails about 96 percent of the time, it seems self-evident that the field has advanced to about the same state as medicine when leeches, liniments and mystery potions were the sophisticated treatments of the day."—Larry Keeley, Doblin. On the occasions when Larry can get someone to listen, he is inclined to reveal pieces of the emerging **science of innovation**.

Business Week's Bruce Nussbaum stated, "There is, in fact, a whole new generation of innovation gurus. They are not the superstars of the '90s, such as Clayton Christensen, who focused on what might be called macro-innovation—the impact of big, unexpected new technologies on companies. The new gurus focus more on micro-innovation—teaching leaders at companies how to connect with their customers' emotions, linking research and development labs to consumer needs, recalibrating employee incentives to emphasize creativity, constructing maps showing opportunities for innovation."

However, there is more to innovating innovation; innovation must be a **systematic and repeatable business process**. One of the key components within an innovation program is a **process** around how it must function. By thinking through and designing an innovation process, you must be able to **test** the process theoretically using **what if** scenarios. By conducting an iterative approach to process design, you can identify bottlenecks, breakdowns, system requirements, opportunities for automation and standardization, as well as resources required to handle expected volumes.

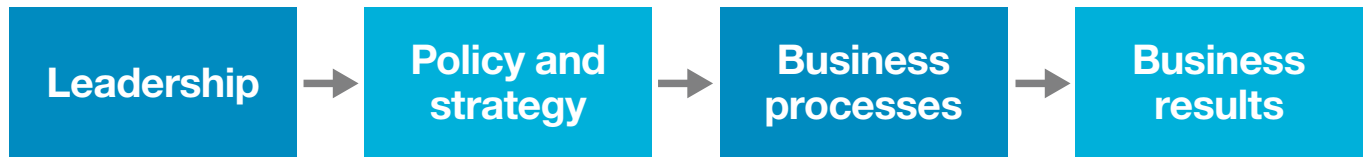
Innovation architecture is the use of abstractions and models to simplify and communicate complex structures and processes to improve understanding and forecast the behavior of the system. In the book, *Business innovation in the cloud*, a way to think about constructing an innovation process is well defined.

With such innovation processes, you have to think of ways of creating innovation opportunities for innovation teams. There is not a single widely-accepted process for innovation. Various leaders at companies have evolved their innovation processes over time; some have many detailed steps while others have high-level guidelines. Nevertheless, regardless of the chosen process, it must be repeatable and disciplined.

Many innovation processes are used by business professionals, but all encompass the following steps:

1. **Understand and scope** opportunities to identify your most critical assumptions, usually around what problem you are trying to solve.
2. **Capture ideas** to develop the minimum product and service concepts to deliver value that is desired, sought, identified, anticipated outcome that will enable you to learn about those assumptions and deliver the necessary outcomes.
3. **Evaluate and select** by testing ideas in the ecosystem of partners, suppliers and customers to find out if what you believe is shared.
4. **Develop and experiment** as quickly and efficiently as possible until you discover the right answers to delivering the outcomes.
5. **Implement** quickly and then scale iteratively, openly and collaboratively to the right product and market fit.
6. **Champion** innovative products and services to reduce the time the business community within the ecosystem takes to understand the benefit. This innovation is not about **sales**; it includes the internal organization, suppliers, partners and customers—the entire ecosystem.

The cloud enables your successful innovation initiatives to scale up or down in real time, thereby providing **rapid elasticity**. However, because **failure** is just as important to business innovation as success, the cloud provides the platform to fail early, shut down a failed initiative and move on again with lessons learned. The focus is all about **rapid elasticity** in the cloud.



From leadership to business results

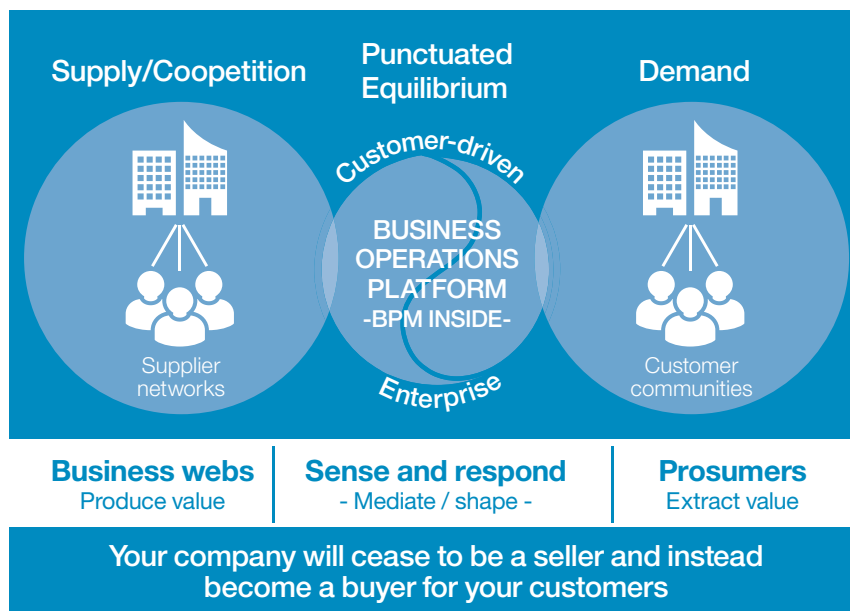
With the convergence of total global competition, global hyper-connectivity and dynamic outsourcing and supply chain, the meaning and practice of strategy has changed. Walt Shill, former McKinsey and Accenture executive famously stated, “Strategy, as we knew it, is dead. It’s now all about operational agility and how fast businesses can seize opportunities. If strategies and forecasts have to change daily or weekly, then so be it.” Therefore, business leaders have moved from **return-on-assets** to **return-on-opportunities** and those opportunities are in constant flux and under constant threat in a constantly changing business environment.

In addition to handling operational requirements through process management, **strategic** BPM in the cloud will breed a new class of applications targeted at using technology to enable the automation of **business leadership activities**.

Process veteran George Barlow explains, “The business cycle relies on business leaders to create policies and strategies that are then executed through the processes of the business to produce business results. The evolution of software development for businesses has resulted in technologies that can automate the execution portion of the business cycle (business process management), and provide many views of business results (business intelligence). What has yet to be automated on a large scale is the creation and maintenance of *policies* and *strategies*.”

He continues to say, “The next wave of business software enablement will center around Strategic Business Modeling (SBM). SBM will provide automation for the planning and rules (strategy and policy) segment of the business cycle. Here we will see a convergence of business frameworks and best practices for industries and vertical marketplaces (MES/REPAC, ACORD, eTOM etc.), horizontal supply and value chains (SCOR, VRM, etc.) and compliance frameworks (SOX, BASEL II, ITIL, etc.) as well as mission, vision, goals, objectives, risk mitigation and other common business elements come together as cloud computing applications spanning every segment of an enterprise and extending these Cloud ecosystems across vendor-enterprise-customer organizational boundaries [pew!]. The use of Master Data Models (MDM and data reference models from industry frameworks will result in many entirely new global commerce pathways in the Cloud. These Cloud applications will also allow remarkable new “scorecard” applications that will measure *plan* (SMB) against *actual* (BPM/BI) in real time not only across the enterprise but between cooperating value chain partners as well.”

From a business model perspective, business becomes a **mediator** between supply and demand. Business professionals are no longer **sellers** to customers, they become **buyers**, traveling across the world to bring the greatest value to your customers. Similarly, your customers become **prosumers** helping you to create optimum value throughout the entire value delivery system.



Punctuated equilibrium

You can innovate, but your competitors soon catch up with you. So winning is a matter of punctuated equilibrium where you set **the pace of innovation**. You innovate and disrupt. Then you innovate and disrupt again and the cycle continues. Think about the tablet and smartphone innovation competition going on right now. In this new world, everything is customer driven and customers are the only asset you have in the new world of total global competition.

Therefore, choreography in the cloud is the future of building customer-driven value delivery systems in 21st century businesses. Just a few years ago, value-chain dominance by an 800-pound gorilla orchestrating everything was the key to competitive advantage. Today, it is process collaboration, cooperation and choreography.

Process on demand: Fantasy or fast track to agility?

Without strategic BPM, the cloud remains a passive environment. However, you must be very clear; process management in the cloud is not just about BPM suites on demand. The term **BPM on demand** is beginning to take on a new meaning when used in conjunction with cloud computing. If you take the stance that the cloud can deliver an infinite number of business services, then you require a mechanism that makes that easy to orchestrate and choreograph those services. At this stage, process on demand becomes relevant.

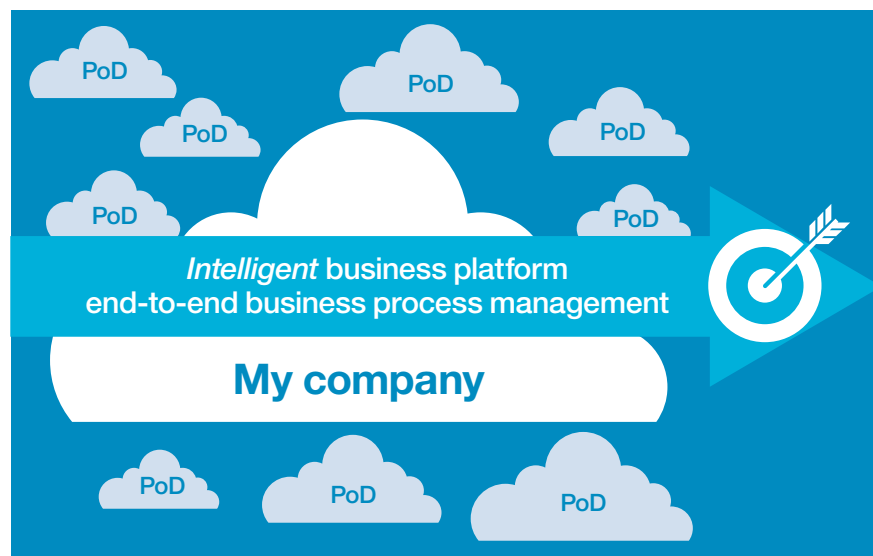
Process on demand means having the capability to call up services when you must change or augment a process that is **already being implemented**.

The services are not the usual ones normally associated with the IT world. These services are far more sophisticated than simple **get data and put data** activities. These services include:

- User interfaces
- Business rules
- Key performance indicators
- Meta data

In short, you have everything to make a self-contained service to incorporate into an end-to-end business process. Why do you require this type of capability? In short, you require it for simplicity.

The concept of process on demand helps you to build dynamic processes that can be changed **on demand** to meet changing business needs. This dynamic process selection provides a substantial improvement in flexibility and reduces design complexity. However, are those advantages sufficient to achieve the gains in agility, scalability and robustness to meet the ever-changing requirements of today's business environment?



When developing business processes, you might face difficulty to determine what will ultimately be necessary in terms of documentation, sub-processes, timing and dependencies of tasks to accomplish a given requirement. For example, for designing a process to handle an insurance claim for a traffic accident, the analyst might know that the customer has to get her or his car assessed for repair. In addition, he or she might not know that a payment might or might not be forthcoming. Further, the analyst might not know the types of documentation. For example, the mechanics costing, police witness reports and hospital bills that potentially will be required to process the claim. Nor will he or she know the dynamics that determine which one or ones of possibly many documents to use.

These interrelated paths through the claim process might already have been defined by different people, in different parts of the organization as self-contained business services or sub-processes and might be changed frequently as the procedures and rules change. In such cases, it is not possible for the main claim process to determine, even dynamically, what particular services to use. All the developer knows is that a particular goal must be achieved, but exactly which services can be used to achieve it cannot be easily determined. Nor in fact does the developer really care; he or she only wants the goal accomplished in an appropriate way.

To solve this problem, you require a repository where you can keep the services for use by the company. What differentiates these services from sub-processes or data integration tools is that cloud applications know through meta data what each service does, the circumstances in which it can be used and the goals and outcomes that are required.

Each service is tagged with the circumstances in which it can be used and defined as an **entry condition** for the process. The entry condition is a conditional statement defined over the case data and any sub-process parameters. For example,

the service **assess mechanical condition of vehicle** might be tagged with the entry condition **CarAge > 10** where CarAge is a field of the case data. Similarly, other services will be tagged.

Such tagging helps you define which required services are available **on demand**. By this means, the calling process merely needs to access a service in the process flow, leaving it to the system to determine which business service best achieves the goal in a given circumstance. During the execution of the process, all those services that satisfy the goal are known. This knowledge is necessary so that on evaluation of a value or the detection of an event, the service that is required can be incorporated and executed in real time, refer Forrester's report, *Smart Process Apps—One Year Later*. As a result, each iteration of the process is different from previous or subsequent processes depending on the dynamics at work at the time. With modern BPM capabilities, you can use different services for different goals and desired outcomes without coding.

The important point is that the condition that defines the **applicability** of the service is attached to the service, not the calling process. The calling process does not have to know or specify the selection criteria; as a result, the construction of the overall end-to-end process is extensively simplified. The developer of the overall process does not have to know how many services are available to achieve the desired outcome, their names, or the criteria that determines their use. All that the developer must know is that at least one such service exists.

The main process is simple and is therefore, easily understood. New services can be added or removed without any change whatsoever to the calling process or processes. For example, when an airplane lands at London's Heathrow Airport, a sequence of events or a process is triggered to quickly and safely prepare the plane for its next flight. The top-line process-prepare plane-is always the same, but the companies and individuals conducting the parts of the overall process will change according to the time of day, availability of components such as jet fuel, next destination and myriad other reasons.

The important point is that the requirements of the plane are fulfilled regardless of the services used. The required services are changed dynamically depending on the need.

However, how do you handle the exceptions and less formal tasks of the case worker? What do you do when things do not go as per plan or they cannot be defined ahead of time?

Everyone works in unpredictable business environments. Therefore, to understand how process on demand can help, you must understand what people do. Knowledge workers have well-defined objectives and goals but how they meet them depends on many factors such as availability of documentation, response from others and so on. Therefore, knowledge workers have to keep track of their goals and their current situation and then dynamically choose the sequence of tasks and processes that can meet their immediate requirements. At each moment in time, they select a sub-process that takes them from where they are to where they want to go next. They continue to do so even as processes fail and unexpected events occur.

The same mechanism for handling exceptions and failures and the unexpected becomes important. For example, suppose a service has been selected to achieve a given goal. If the service fails or causes an error condition during execution, the calling process detects the event and swaps in a service designed to handle errors. If a document arrives unsigned or filled in incorrectly, this error can be noted and a different set of actions can be initiated to complete the task at hand. As a result, contemporary process management systems are far more robust for handling exceptions, failures and incomplete process specifications.

Just as there might be many services and methods for achieving a given goal, there also might be many internal and external providers of those services. Process on demand, using the loose coupling of services, can make main processes easier to maintain, more robust and more elastic—reflecting the key benefits obtained from cloud computing as a whole.

However, the notion of process on demand adds greatly to mashup applications. With conventional mashup application deployments, you tend to ignore the impact of possible failure of a service provider. A well-grounded method for handling such situations is outlined. If a particular service provider cannot meet its agreed service level agreements, the on-demand nature of process on demand ensures that another provider will be contacted and brought into service. So, if company A cannot respond within the timescales, the application can turn its attention to company B and fulfill its requirements from them without user intervention.

More complex processes can be built easier and faster because you do not have to encode all the special cases for dealing with a complex unpredictable world. In summary, the benefits of the process on demand approach are:

- Far quicker application development
- Faster ROI and time to value
- Easier-to-change and maintain applications
- More extensible and easily reused software
- More robust and reliable software
- Reduced complexity that means simple, modular components that are easily validated and inspected, self contained and accessible to both business analysts and IT developers
- Bite sized development

Achieving success with cloud computing

Cloud computing has become the most transformative technology shift since the personal computer—and then the Internet. Migrating business to the cloud has reached a tipping point, where it is no longer a **trend** but rather an absolute business requirement. Cloud computing has been around in various forms for quite a while, from the concept of multitenancy time-sharing in the 1960s, through to the development of virtual private networks (VPNs) in the 1990s to the rapid growth period you are witnessing today. In 2011, Gartner's Jim Sinur predicted

that business process management in the cloud would be the **real thunder**. He stated that moving operations to the cloud would free up money and efforts for businesses and those organizations would be careless to ignore BPM.

Rapid elasticity helps you scale up or scale down, in an instant. Benefits of BPM in the cloud include the following:

- Quick start, without having to buy it, provision it, or house it and focus on business value
- Elastic, pay-as-you-go subscription model tied to business outcomes, not IT expenses
- High degree of collaboration in the arena of business analysis and process modelling
- Orchestration and choreography of cloud services
- Prescriptive analytics for harnessing big data to provide real-time **next best action** dynamics for processes in flight, at customer **moments of truth**. Think Analytics as a Service (AaaS) and Data in Motion before it has come to rest on a storage device
- Vertically focused solutions on tap in healthcare, energy, government, financial services and retail
- Mobile first with smartphones and tablets that allow process workers access anywhere and everywhere, all the time

To enhance the impact of the cloud on how IT supports the business, you must shift from **information technology** to **business technology**; from delivering technical services to delivering business services. The cloud model means software that supports both user and developer tasks becomes more intuitive and responsive to change. Many collaborative and other new-era business applications will not be feasible without a cloud computing infrastructure.

However, leaders at organizations must not be misled. Cloud computing is as much a **way of thinking** as it is a service-oriented infrastructure. Without a corresponding paradigm

shift, even with the associated tools and techniques, you will not generate the desired results. Yet there is an even bigger point to grasp and that is how the nature of work itself is changing. With IT, you can automate standard business processes and procedures. The focus of business leaders has now moved to empowering the knowledge workers in the front office and real-time **next appropriate actions** at customer moments of truth.

The American University professor, John M. Richardson, once wrote, “When it comes to the future, there are three kinds of people: those who let it happen, those who make it happen, and those who wonder what happened.”

Collaboration is now the key to competitive advantage and the cloud is where collaboration takes place. The cloud offers a new way to develop and deliver cost-effective enterprise IT services and solutions, but it is vital to learn from the lessons of the past. The take-up of PC networks was started and driven by users in a series of individual user-driven projects, which caused serious problems as it became clear that it was one environment: client/server. Understanding this point is important if you have to prevent this from happening again with business users going around IT to tap SaaS applications. BPM in the cloud brings order to such enterprise chaos.

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¹ *Let it rise*, *The Economist*, November 3, 2008

² *The Economist*, October 2008

³ *The Forrester Wave™: BPM Suites*, Q1 2013, Clay Richardson and Derek Miers, March 11, 2013



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