An introduction to Kenesto

Information technology and business conventional wisdom

For the past several decades, businesspeople have been using information technology (IT) to help manage their businesses. Over that long period, IT has been applied in many different areas of the business. At first, IT was used to automate routine, repetitive systems like payroll and accounting. Businesspeople were excited by the impressive of returns on investment (ROI) from applications like these, which were achieved largely because in these first applications manual labor was replaced with automated processing.

Business leaders, eager to expand upon the ROI that they had realized from automating manual labor, came to believe (and today no longer question) that few, if any, areas of the business cannot be improved by applying information technology. But the initial "green field" applications, with their recurring, cyclical processes, were relatively easy to design and implement. (In fact, the granddaddy of IT apps, payroll, is so generic today many companies outsource it completely.) "Softer" applications – especially business processes involving people – turned out to be much harder to automate. This is because computers are machines that excel at doing the same thing over and over – and doing that repetitive process very quickly. Calculating and printing payroll checks matches the computing machine model like a glove. Assisting a team that must design, develop, price, manufacture and support a product does not.

Think about it: the way people want to work – starting a process, stopping it midstream, adding and changing the people who are involved, tabling the process and resuming in some other guise – is the complete antithesis of the kind of rote, routine processing that a computer can be easily programmed to do.

Most IT vendors have attacked this mismatch between what people are good at and what computers are good at in one of two ways. First, they have developed "workflow" systems that, to be useable at all, restrict what users can do in the system by limiting user choice to a narrow, anticipated set of actions. In essence, these systems solve for the limitations of computing by reducing what people can achieve using that system. Their developers have simplified them and "dumbed them down." Systems like these lack the flexibility team-driven processes need and, as a result, only partially address the dynamic nature of teamwork.

Second, at the other extreme, some process systems are so complicated – because they attempt to anticipate everything a user might do – that users have, in practice, rejected them as incomprehensible. These systems are the classic "enterprise" systems that have layers and layers of technology and which require enormous amounts of resources to acquire, install, maintain and enhance.

This fundamental mismatch between the way computing works and managers' needs to make their workforces more effective and efficient is the central dilemma when seeking a solution to automate teamwork. To date, the two available options – one that is only a partial solution to the problem and another option that buries the problem in a massively overweight implementation – have not come

close to delivering the kinds of returns on investment that early IT applications delivered. Neither extreme is appealing, despite the fact that billions have been spent on the process automation software category. "Stovepiped" process systems begin with a specific part of the company, for example, manufacturing processes. These systems, which hope to expand from manufacturing to the rest of the enterprise, have become particularly complex, expensive, disruptive to the enterprise and unable to keep up with the changing needs of the business.

A new approach to process automation

Kenesto (www.kenesto.com) is the first system to solve the long-standing dilemma between how people work and how computers work. Kenesto revolutionizes the business processes of any enterprise by being engineered to deliver three key capabilities: Kenesto is *people-centric*, *product-based* and *enterprise-scalable*. These three key ideas are described further below.

People first, computers second

It sounds obvious to say that process automation systems must put people first. But no two people want to automate a process the same way – and to encourage maximum creativity and productivity from users, no automated system should attempt to predetermine how any individual process should flow. It is a very challenging task to design a process automation system that combines complete freedom of design with a user interface that non-programmers can use and understand. This is precisely what Kenesto has achieved.
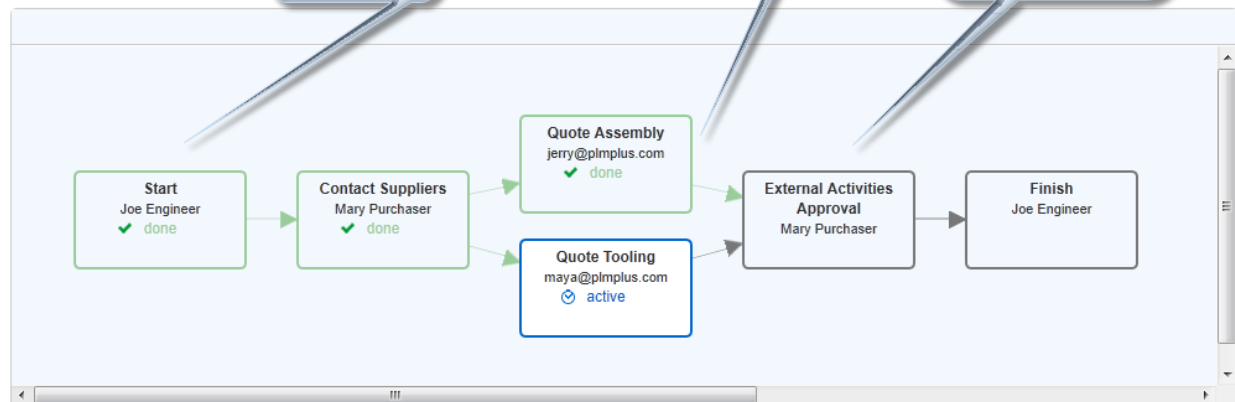
Kenesto starts with a design tool that anyone can use. Kenesto's powerful process designer uses a universal (and simple) set of graphics to allow a user to rapidly tell the system what he or she wants it to do. The screen snippet below shows how easy it is for people across the enterprise to create and participate in very sophisticated processes.

Here, a user has used Kenesto to outline a common business process: asking an external supplier for a quote on parts to make the company's product. In this case, the engineer has asked the purchasing staff to get pricing on a pump. The engineer simply begins the process using simple, universally understood process flow graphics: "Ask Mary in purchasing to get me a quote and send her the information she needs to share with potential suppliers." Mary, in turn, simply sends the request on to potential vendors with whatever information they need to formulate their response. The process is represented as simple boxes, with the real names of team members and real-time status. Kenesto is capturing a process *as it is being executed*, which means that the process can be modified or altered as required to respond to changing conditions. In this example, as each user contributes his or her expertise, Kenesto is automatically and incrementally recording the process in real time. This unique capability eliminates a significant problem in other systems: the challenge of making sure a pre-designed process is up-to-date and matches the way the team currently defines its work.

Once the engineer enters his request, Kenesto automatically starts the process. There is no need for the engineer to "deploy" or "initiate" the process.

Subtle as this automatic execution might be, it is an important aspect of Kenesto's user-centric design. It is a computer programming metaphor to design process first and implement it in a second step. People do not work this way. Instead, describing a business process and starting to do it are usually the same activity. Kenesto, unlike legacy process systems, works the same way team members work in the real world. Kenesto does not artificially separate process design from process execution and, in so doing, bridges the gap between the way people work and the way computers are programmed.

As this request for quotation (RFQ) process moves along, you will notice that Mary in purchasing has asked two different vendors to respond to the pricing request. This demonstrates the elasticity of Kenesto processes. They can be changed, extended, and added onto *as they execute.* There is no need to go back to the beginning and re-start the RFQ process. Joe, our engineer, did not need to know how many people Mary wants to send the RFQ to. And Mary, exercising her professional judgment at the moment she becomes part of the team working on this RFQ, can reflect real-time business conditions in the processing of this particular RFQ. Maybe Mary knows of a new, competitive vendor she wants to try out for the first time. Here, for example, you can see she has decided to invite two different vendors to provide a response. Mary simply adds steps to the process *in-flight* using the simple designer and, optionally, attaches any additional information she thinks useful. The process, modified from its initial scope and with both its original and added content, continues. As you can see, the process continues with users outside of Mary's company. We will discuss the importance of this remarkable capability when we describe what enterprise scalability means for Kenesto users.

Kenesto is people-centric because it offers a simple to use and understand process designer. Kenesto also discards computer programming models of work by rejecting, for example, classic design-first, deploy-second process modeling. More important, Kenesto allows inflight processes to be quickly and easily altered to leverage the expertise of professional users. With Kenesto, users and management have, for the first time, a system that combines the way people naturally work with business visibility and improved productivity.

Why are we all here?

What remains an existential question for humanity is actually quite simple to answer for business. Businesses exist to design, produce, deliver and support a product or service.

Therefore, IT applications – and in particular process applications designed to focus the many parts of the enterprise on core activities – must be *product-centric*. Enterprise business process management systems (BPMS) have traditionally promoted themselves as a generic, core IT "layer" that businesses can adapt to any desired process. But BPMSs have no central business concept on top of which they are built; they are simply IT architecture and capability. That is, an all-purpose BPMS does not know the difference between a product and a customer service process. It cannot distinguish an RFQ for a new product of service from a requisition for paper clips.

Worse, a generic BPMS requires developers to develop process applications, a fatal blow to user-centric process development. Crucially, enterprise BPMSs do not natively understand the idea of "part" or "product." This makes it extremely difficult to use a generic BPMS to implement a loosely-coupled, long-running product-centric process. And it is precisely these types of processes that can significantly contribute to enhancing the company's products and services.

To overcome these shortcomings, product-specific BPMSs have been developed. Called product lifecycle management systems (PLM), they overcorrect for the weaknesses of enterprise BPMSs. To achieve "knowledge of product," PLM systems have adopted the business perspective of engineering departments. This design decision overwhelms simplicity in PLM systems by encumbering them with the concepts of manufacturing technologies, including computer-assisted design (CAD) and enterprise resource planning (ERP) software. In short, to correct being generic, PLM systems became zealots for a relatively narrow perspective on the business. By speaking the language of engineering, PLM-based processes either require users to learn complex engineering concepts or "go around" the PLM system to get work done. It is a well-known fact that users have largely chosen to do the latter.

Kenesto revolutionizes product-oriented business processes by understanding what a product is without requiring users outside engineering and R&D to learn a new way of thinking and talking about the work they contribute to companies' products. Kenesto knows what a product is – it can understand, manage, share and display a bill-of-materials (BOM), for example. But Kenesto does so without expressing that BOM the way an engineering or CAD system would. Instead, Kenesto makes product-centric concepts – things like RFQs and service orders and engineering changes – accessible to the broadest possible set of users in the company, allowing those users to effectively apply process automation to their work. Users do not have to change the way they think about a company's products to participate in Kenesto-based automated processes.

As you can see from the screen snippet here, Kenesto can display a bill-of-materials – the lingua franca for dealing with product processes across the enterprise – in a format that anyone, anywhere inside the company can understand. Kenesto does not display an "engineering BOM" or a "CAD BOM;" it displays a product BOM using the terminology the whole company uses to describe its products.

By allowing enterprise users to initiate and manage product-centric processes easily, Kenesto is the first system that bridges the gap between generic BPMSs and PLM on one side and end users on the other. With Kenesto, it is possible – for the first time – to "have your cake and eat it, too." That is, it is possible for everyone in the company to design and participate in automated processes and simultaneously make those processes product-centric.

## Your enterprise is bigger than the buildings your people work in

Process automation systems, be they BPMSs or PLM, have traditionally been deployed inside a company's IT infrastructure. This is a costly and time-consuming way to deploy any technology today. That is even more the case with process automation systems because of their cross-company implications. It can take years of committee meetings and hundreds of thousands of dollars to implement a BPMS or PLM system. And all that expense is incurred before the first automated process is actually designed, developed and deployed. If the business process needs to include participants who are outside the four walls of the company – suppliers, customers and regulators, for example – costs and complexity can increase exponentially.

Kenesto has fundamentally rethought how enterprise systems should be designed and deployed and has developed the first product-centric process automation system designed for cloud computing. By being architected for cloud computing – and not a reworking of a monolithic premises-based BPMS or PLM system – Kenesto is also the first process automation system to deliver enterprise scalability suitable for a range of businesses from small workgroups all the way up to global multinational enterprises.

Kenesto achieves enterprise scalability in two ways. First, it completely eliminates the delay and costs of traditional, legacy process automation systems. It is possible to decide to use Kenesto on a process today *and have that process actually running today.* Because Kenesto is a zero-installation cloud-based service that is always as close as the nearest browser, it is possible to implement it for many people all at once, for many processes all at once, or, even better, both. Kenesto achieves new levels of enterprise

scalability by simply allowing users to completely avoid dealing with infrastructure, deployment and maintenance.

Second, Kenesto promotes using the broadest possible team in product processes. For example, including participants outside the company is as easy as alerting them via email. Including new users, new departments, new suppliers – just about anybody – is made simple by the fact that Kenesto runs in the cloud.
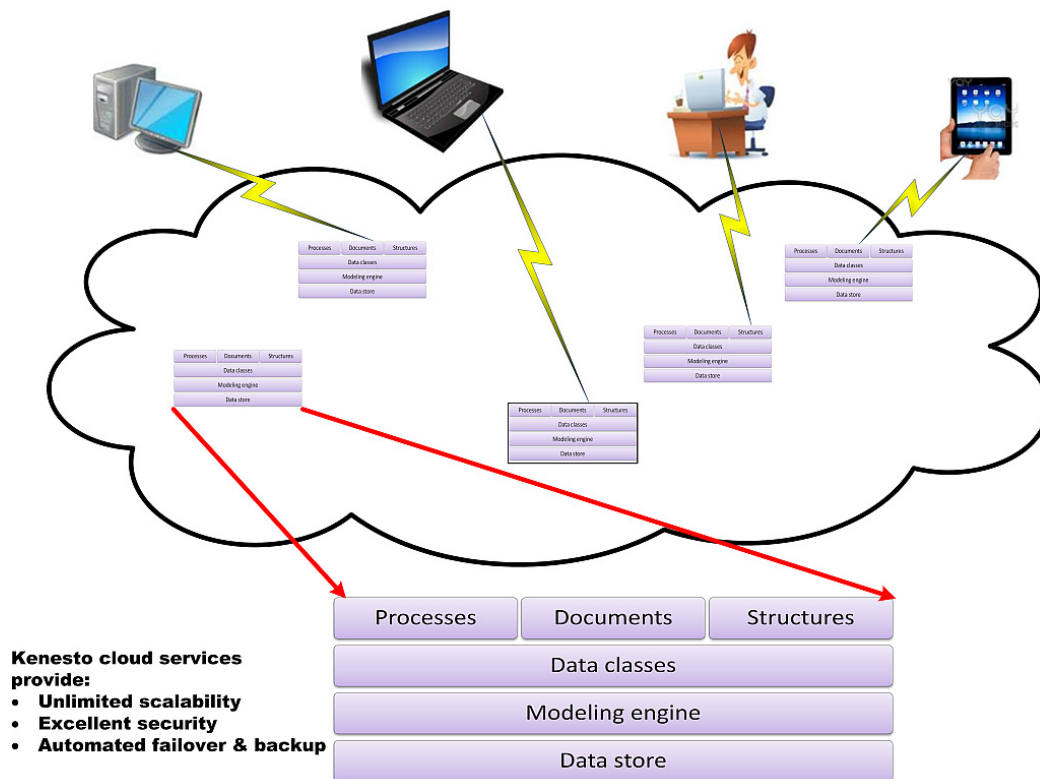
Many users wonder about the security implications of cloud-based process automation software. While it is beyond the scope of this white paper to detail all of the ways in which Kenesto delivers a secure environment for users, it would be an oversight not to address the question briefly.

Security is a mix of procedures and capabilities, all of which have to be balanced to provide maximum security without making the system too difficult for users to use. Kenesto transfers to its users the underlying operational excellence of the cloud infrastructure provider Kenesto runs on. Data centers in secret locations, the latest in data center security and access control, integrated failover and backup and the architectural separation of Kenesto from other cloud applications make Kenesto arguably *more* secure than many companies can achieve in their own data centers without massive additional cost.

Internally, Kenesto is architected as a multi-tenant cloud application, which guarantees privacy. Data is encrypted inflight and passwords can conform to individual users' company policy.

Most important, Kenesto allows users to determine what should be shared with whom and when. Allowing users to classify information – as opposed to trying to program information classification into a rigid, legacy process system – ensures accountability and gives management visibility into who managed what information when. This last benefit is in direct contrast to email, which is notorious for leaking information and allowing it to move beyond the control of its owner.

Summary

Kenesto is a new kind of process automation system. It is *people-centric*, *product-based* and *enterprise scalable*. Kenesto combines these three attributes into the first system that can be widely deployed across an enterprise to improve a company's teamwork and efficiency. In short, Kenesto revolutionizes process automation by making process automation more widely applicable, more affordable and easier to use than ever before.

Kenesto is coming soon. Please call us at +1 781 780 7400 or email us at info@kenesto.com.