



## **Aligning For a More Successful Business and IT Development Paradigm**

**by Sandra Rogers**

The pressure on IT professionals is more immense than ever, with expectations that range from leaping tall buildings in a single bound to walking on water. For years, corporate IT shops have adjusted to doing more with significantly less budget and resources, therefore individuals must constantly seek innovative ways to get their jobs done. Technology efficiencies and savings however only go so far. The true test of success for most is in how well the solutions they design, develop, and evolve are truly meeting business needs.

"Business and IT alignment" has been a key goal and overworked phrase bantered about freely across the industry for years now, but what does this really mean? How does one measure if such a feat has been achieved? And if business needs are constantly in flux, how can one build a solution that can rapidly adjust to maintain alignment?

An underlying attitude seems to exist that the onus is on the IT ranks to adjust their ways. Having interviewed IT professionals for years, it is apparent that those most successful in their pursuits indeed have a keener involvement and understanding of their respective enterprise's business, its demands and specific nuances. However, not only does IT need to better understand the business, business needs to better understand IT and how they themselves can utilize and impact its effectiveness. And while many IT professionals have tried to buffer business stakeholders from getting too technically involved in understanding what it takes to build and maintain systems, the time has come to bring these stakeholders further into the process.

### **A Time For Change**

Most enterprises have a tremendous mix of technologies, spanning multiple generations of application and systems architectures, and from a variety of vendors. As businesses look to maintain and integrate these silos of computing they have also the further burden of layering on new and changing business requirements, including additional audiences to reach, stricter regulations with which to adhere, supplementary channels and devices to support, and more. Taking old data models and previously semi-automated business processes and bringing those into new interfaces, or pursuing a packaged application paradigm, has not solved this core challenge.

Creating a more real-time approach in not only the solutions themselves but also in how they are adjusted to react to business changes has increased in criticality. Requirements in many instances are in a constant state of flux and can often be different due to varied stakeholders' roles, perspectives, and skill levels. Most business users are looking for greater degrees of freedom and self-service yet still would prefer to have capabilities provisioned by others and are in little position to determine and build all that they need for themselves. As technology becomes yet more interwoven into the fabric of business, a different tact must be taken. To be more agile requires a flexible computing foundation and platform, ideally with functional and information resources designed in a modular fashion, and process workflows that can be managed, monitored, and altered based on business rules and conditions.

Over the past decade, advancements in interoperability standards and architectural practices that promote and support further degrees of modularity and abstraction have paved the way to take

the vision of an IT solution that reacts to business needs from theory to reality. Many businesses have adopted practices such as SOA (Service Oriented Architecture) and BPM (Business Process Management) and have indeed reaped the benefits of pursuing these tactics. However, while the ideal may be to build one's full enterprise architecture based on such tenets, most organizations find that certain kinds of applications are more suited than others to be built or adapted in this vein. Thus these should be viewed as longer running and complementary initiatives where maturation is achieved through incremental steps.

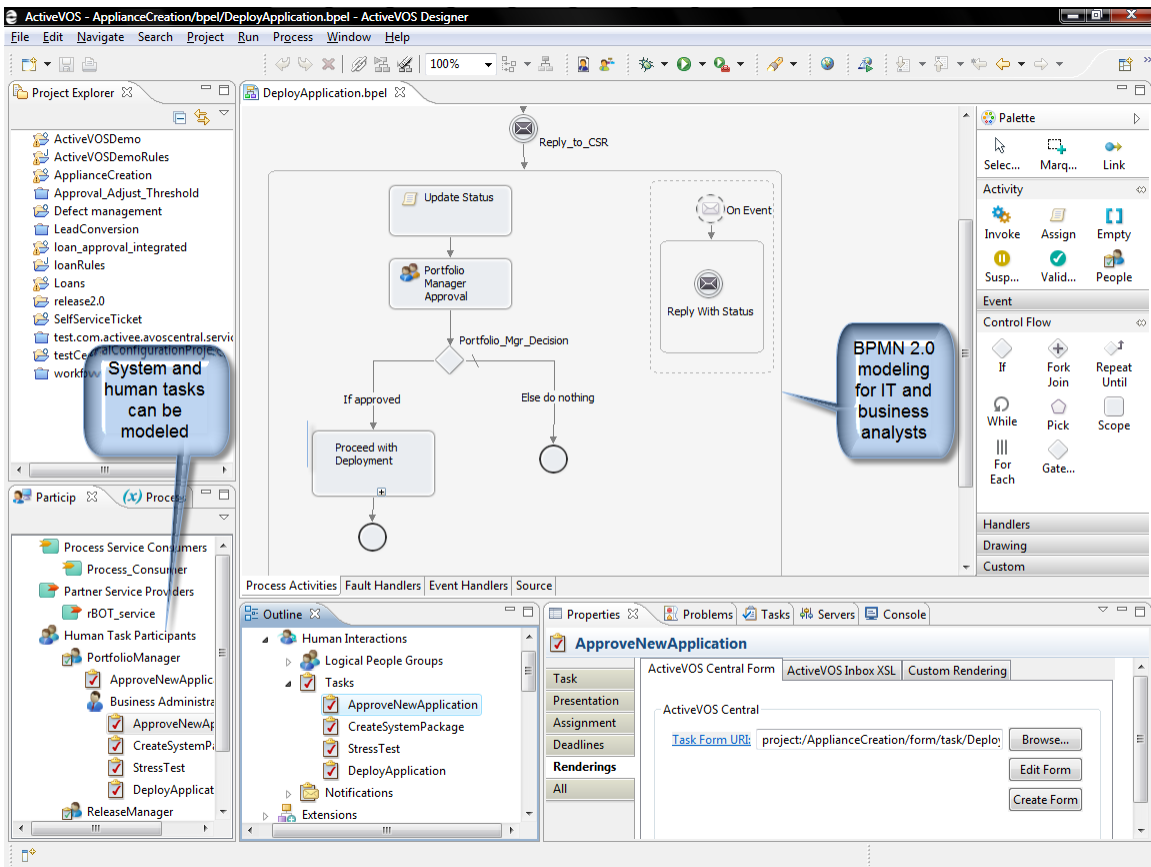
Although industry press and vendors often speak about developing "end-to-end" enterprise business processes, it is more pragmatic for most organizations to work on sub-processes that can be woven into more pervasive solutions or expanded as needed. Many, if not most, business processes are poorly documented and highly dependent on certain individuals' personal knowledge of what steps and systems to engage. Also, key linkages and integration points often situate, and can fail, at points involving human intervention and interaction. These latter activities typically utilize information from varied systems and require analytical support for decision-making activities. Thus, rather than build separate systems to enable people, process, and information, ideally one should design for the intersection of these key elements and look to exercise a more unified environment that enables systems workflow, human-centric tasks, and document processing in an integrated fashion.

The idea of using a single source system containing all functions and activities for a complex, enterprise-level business process is for most organizations a pipe dream. The reality is that most processes require the ability to orchestrate, integrate, navigate, and optimize across multiple systems. This is where the importance of the overall enterprise architecture and the choice of standards and platforms weigh in heavily, helping to create a holistic environment for incremental innovation.

### **It's All in the Approach**

The popularity of RAD and Agile development methods reinforce the need to select technologies that allow for a highly dynamic, collaborative, and iterative ecosystem to unfold. Such methods require strong visibility into the current and desired state of given systems and processes to help inform all parties where changes can and should be made. These development teams also typically involve key business analysts or stakeholders in many more parts of the application lifecycle and such personnel need to be engaged in the process in a more collaborative way.

Empowering this extended team with visual and model-based tools and business process management systems (BPMS) can be highly effective in fostering a more coordinated development environment. These systems facilitate interaction and participation not only during the discovery and definition phases of a project but throughout the entire lifecycle of a solution, including problem solving - arming vested parties with appropriate metrics and parameters to amend the application when needed. If solutions are designed well, these systems should also be able to accommodate exception workflows so they may be handled in a more fluid manner. ActiveVOS from Active Endpoints is one example of a BPMS designed to introduce both business process and system perspectives into various process modeling and lifecycle steps, with such features as a graphical workflow editor, project task coordination, and a deployment console, amongst other facilities. *(See Figure 1)*



**Figure 1. Process modeling integrated into the development environment**

Although non-technical users may not be ready to be set loose to use and run these tools for themselves, the ability to involve them in the process utilizing a more visual paradigm helps promote better alignment and partnership as a whole. Developers can better avoid becoming mired in IT-centric lingo and the semantics of underlying technologies and languages and foster a foundation for communication to which business and IT stakeholders can mutually relate. However, from a technical angle, care should indeed be taken as to how these systems can be balanced and intermingled with more traditional code and script-based solutions, which still represent a large portion of today's application base.

What sets today's BPMs apart from the past is that they can provide both development and execution engines, with more flexible control and deeper visibility into what is currently running. According to Michael Marconi, IT director at consulting firm Brown Study Ltd, one, if not the most, powerful value propositions in using ActiveVOS is gaining real-time, detailed insight into what and how processes are running. "What was once opaque is no longer." He also warns, however, to take care in how one's systems are designed and what platforms are chosen. "There can be a lot of overhead in the technology stack and therefore it is crucial to choose a solution that does not introduce tremendous complexity and ensures you architect your solutions in a fashion being conscious of performance and usability considerations." This was a key consideration in opting to utilize ActiveVOS for his firm's engagements.

Even more importantly, IT professionals need to consider that BPM is an overall program and approach and not just about the technology nor merely about designing workflows. Both business and IT stakeholders must better understand this. If done well, BPM and SOA

approaches often help forge a keen partnership between business activities and systems, especially when components, services, and processes suitably reflect business entities. It can service business management needs for greater transparency and metrics on how the business is performing while at the same time provide an abstracted systems processing environment that allows for greater levels of change management and extensibility not found in hard-wired code.

The exercise of visualizing a process and then breaking it down into sub-processes helps to, as Marconi states, "isolate activities into meaningful pieces of work." This can enable vested parties to work better with one another to more accurately define what is necessary, set proper expectations, and ultimately derive greater success and alignment of what is delivered. This approach can unearth requirements much earlier in the development process and determine what information and functions may need to be accessed as Web services, what business rules may need to be developed, what exceptions need to have specialized workflows and decision support processes, and so forth. It also can introduce less risk to the project by pragmatically breaking down the solution into manageable tasks for tooling, testing, and measurement.

Utilizing a flexible BPMS platform that goes beyond modeling into deployment and operations can help facilitate iterative design cycles and, if one's application is thoughtfully architected, ensure business stakeholders are able to glean meaningful information into how given processes and configurable sub-units are being engaged and functioning. (See Figure 2)

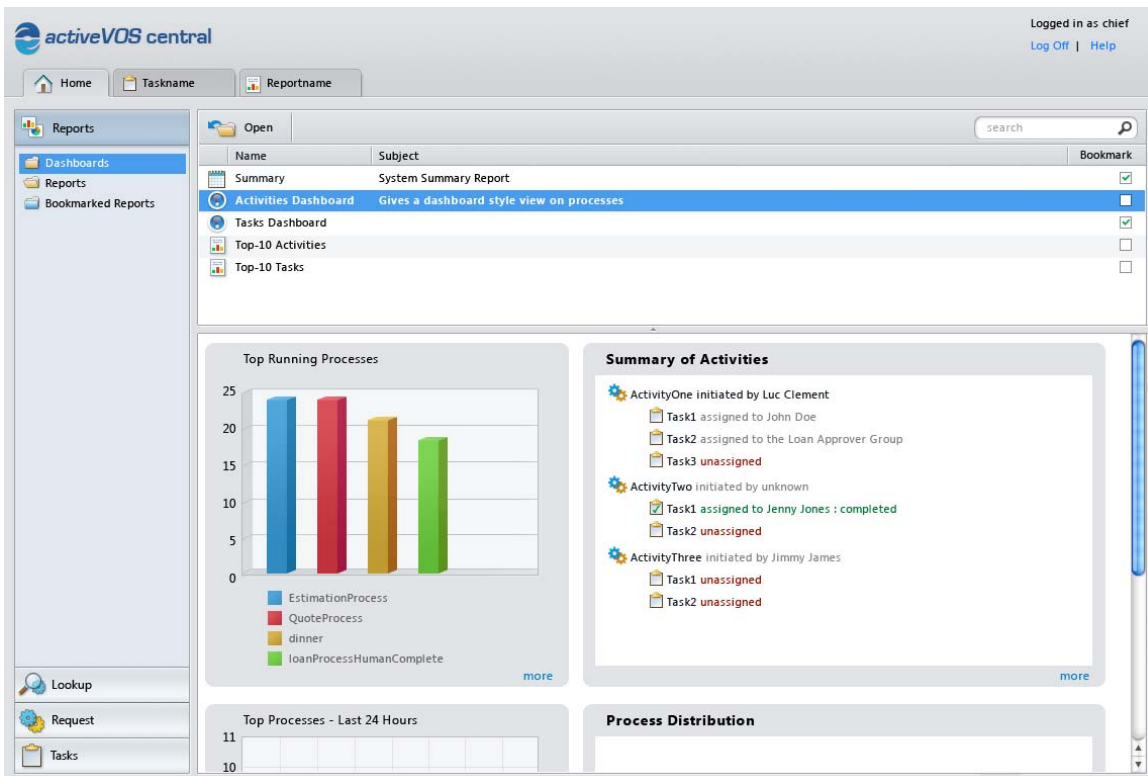


Figure 2. BPMS can provide direct measurement of processes and other configurable units

### Creating a Business Solution – Not a Technical Solution

Some of the most essential aspects of running successful business and IT projects are often overlooked, and those involve managing human factors. This is especially true if visibility and documentation of the current business state treads on organizational and business cultural

concerns, potentially exposing certain weaknesses or ownership issues. Also, all the steps of an enterprise business process or transaction are not entirely known, let alone documented, and various stakeholders may have different levels of knowledge and perceptions as to what is and should transpire. A forum needs to be developed that encourages involvement and influence of vested business parties.

Additionally, an increasing concern for many companies is the amount of shorter-lived processes to support. These may be highly critical to make as efficient as possible but unfortunately do not allow for the necessary time to automate and optimize utilizing traditional application development approaches. This level of dynamic agility has become a necessity for some and will be the reality for most, thus a different attitude toward what defines an application and an automated process is taking place. It's not about building an application but creating an environment enabled by system capabilities and services that can evolve to support various business activities and processes.

The following are but a few words of advice in helping develop this network of capabilities:

- *Engage The Business* – It is a mistake to assume one can gather all requirements upfront and then expect to deliver a solution that aligns to business needs. Bring key stakeholders early on and further into the development process where they are involved on a regular basis beyond the initial project and into maintenance. Consider business as part of the ongoing system and application lifecycle versus the beneficiary of an end solution.
- *Elicit Business Ownership As Well As Technical Ownership* – It may be difficult or politically charged to determine ownership of a process initially. Using modular approaches and model-based design tenets can help to create more natural boundaries of system functions, processes, and business rule parameters. Abstracting out these elements can also help to accommodate varied authority levels and facilitate evolving and shared governance processes.
- *Embrace Degrees of Abstraction and Modularization* - Separating core functions from dynamic processes with abstracted sets of parameters and business rules creates not only a more flexible systems environment, it helps hone the development process and focus questions asked of the business into more manageable chunks. Caution however must be taken to not introduce too much complexity and thus diminish business value.
- *Design Services, Not Applications* - Make headway in factoring key business elements as informational and functional Web services. When designing a business process, narrow it down into sub-processes and then enable common sub-processes as services. The goal is to design and keep functional elements and processes as stable as possible and instrument dynamic elements so they may be more readily manipulated.
- *Plan to Iterate and Accommodate Change* – Even if one's business has not fully embraced Agile techniques, develop a lifecycle approach that can accommodate multiple and rapid iterative cycles. The ability to gain constant feedback and run rapid scenario models and regression tests, especially in a context that can involve, or minimally showcase results to, business stakeholders in a paradigm they can understand, is powerful in achieving and aligning goals and helps manage expectations.
- *Monitor and Measure* – One cannot evaluate and improve upon what one does not know. By using tools and auto-instrumenting a process and its critical components to provide the necessary metrics, both business and IT stakeholders can determine if needs are being met

and where adjustments are to be made. Monitoring and measuring granular components at various business functional service and process levels can also support more effective ROI and TCO evaluations.

## **Conclusion**

Doing more with less has been the modus operandi for IT shops for years. However that has not stopped enterprises from asking for even more from these resource-squeezed teams on a regular basis. Competitive and economic conditions have exaggerated their need to introduce new and changed business capabilities to market at a much faster pace. Additionally, they desire greater visibility into their day-to-day operations as well as more accurate auditing and insights for better business planning, decision-making, and regulatory practices. IT leaders are looking to evolve the techniques they employ to enable programmers, business analysts, quality assurance experts, and production personnel to be much more nimble.

As individual contributors and more collaboratively as team members, all professionals must better align their efforts to ensure business goals and IT standards are well understood and met. This means achieving clearer and more rapid consensus, and making adjustments as necessary. It also entails auto-creating documentation, including requirements, metrics, and exception processing guidelines. Many enterprises' stakeholders are also often geographically distributed, whether due to global business models or perhaps by utilizing outsourced parties. This adds to the overarching need for greater automation to facilitate activities and communication with the business across IT and business process lifecycles.

Organizations are discovering that the use of more visual and self-documenting solutions can better ensure that requirements are commonly understood and agreed upon, and measure if certain business goals met. Utilizing BPMSs like ActiveVOS that help individuals capture current and future state, that are easier to use and allow for multiple and concurrent cycles while designing and enhancing business processes, can greatly impact overall results. The use of such technology that provides deeper transparency into one's processes, enables the sharing of best practices, and allows business stakeholders building degrees of freedom in adjust application and process parameters can help bring all parties into further alignment. Minimally, it can be a shared mechanism to help all speak the same language. Just that, in and of itself, is a giant step in the right direction for many.