

PSC Enterprise Solutions Case Study



SOA and a Rules Engine Facilitate Process Redesign

The Problem – *Unlocking an unavailable and inflexible reporting system*

A large financial services company with a batch-driven back-office system was having several problems exposing profitability information to their customers in a timely manner. During the nightly batch processing, the transactional data, which was exposed by a portal, was literally unavailable. Data warehouse integration within the back-office system was hard-coded and inflexible. Process dependencies were decentralized and difficult to manage. The entire process was too critical to be shut down for overhaul. It was as if there were 10 systems and 10 technologies, all connected in such a way that shutting any one down would shut down the whole operation.

The Analysis – *Identifying the Interactions*

Most problems in business are in some way or another based on the ability (or inability) to integrate the steps within the business process. To make matters worse, most processes are comprised of components (applications, databases, technologies etc.) that were added one-at-a-time, over time. Thus it is virtually impossible to monitor and gain insight into how these processes (even though each might have been a best-of-class solution for the particular business problem at hand) work together to solve higher order business problems and issues.

Solving this dilemma while keeping the business running at the same time is no easy task. There are essentially two choices – use SOA and rules engine technology to build an entirely new environment and do a cut-over (rip and replace), or figure out a way to work around the barriers to achieve the same result. The first choice, although easier and safer, was cost prohibitive. The second and much riskier one, took the approach that “it doesn’t matter what is inside, just deal with what you have without re-writing everything inside.” In other words, use the “new” technologies of SOA and rules-based decision making as an “enabler” to leverage existing assets and breathe new life into legacy business processes.

The Solution – *Redesigning the Process with SOA*

PSC took a SOA and rules approach based upon an already in-place bus and application server technology. The bus and nodes are clustered to meet high-availability and scalability requirements. PSC provided the architecture and implementation services to ensure that the multidimensional cross-platform processes (IBM System i, Java, Linux, Microsoft SQL Server, a BPEL engine, rules engine, message router, and gateway) could be logically orchestrated to solve enterprise-class business problems and be managed centrally.

Complex integration problems were solved by tying existing solutions together in one central location. The configuration of these processes (choreographing and orchestrating) was stored in the database and could be maintained by business users. The rules engine also enabled the customer to “outsource” some of the process management to their users, thus replacing an expensive and unwieldy code-based process.

The solution was facilitated by a process orchestration bus and backed by a process orchestration database where the business flows of technical processes are tied together. Independent gateways were built to publish and/or listen to events on the bus. The messages, which conform to a canonical standard, allow expandability to meet future integration needs.

Enabling existing solutions on disparate platforms to be leveraged in innovative ways, was clearly the key to success. If you can combine understanding the interactions of the business process and the cause-and-effect of the individual steps with years of experience with the Java Enterprise stack you can accomplish just about anything.

This is IT redesign at its best – using SOA and rules to make the best of with what you have. Business process knowledge and orchestration skills are the secret sauce that PSC brought to the table to solve this problem quickly and inexpensively.

The Benefits

- Preserved current investment
- Increased speed and flexibility
- Improved Customer Service

The Technology

- SOA
- Rules Engine
- Orchestration (Systems)



It's all in the way we listen.®

PSC Group, LLC is a professional services firm that specializes in business process architecture and back-end integration. We have extensive experience and expertise in architectural design and Business Performance Management, Dashboards, and Reporting.

When it comes to information management and control of business processes, PSC can provide you with a competitive advantage through the smart application of technology.

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