

The Secret to Creating Value from Web Services Today: Start Simply

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As enthusiasm around Web services gains momentum, many CIO's are reacting with skepticism and concern. Whether it is lack of confidence in the ability of partners to deliver mission critical services, concern about allowing entities outside the enterprise to perforate the firewall, or reluctance to unleash entrepreneurial initiatives within the IT department, CIO's see Web services as a potential minefield.

However, Web services offer real business benefits today so CIO's should resist the urge to build roadblocks. Instead, CIO's need to find ways to gain experience and reap some of the benefits of this new technology without exposing the enterprise to undue risk. The most promising path in Web services is "Keep It Simple, Keep it Incremental, and Learn, Learn, Learn". By simple, we mean working with simply structured data, simple protocols and simple business processes. By incremental, we mean proceeding in small steps so you (and your partners) can learn what works best and build confidence in the technology.

Keep It Simple

Simple data: By focusing on specific event based information that directly impacts the actions of the enterprise, CIO's can help to simplify their company's approach to data sharing. Dell Computer illustrates this opportunity. Dell is seeking to lower the inventory in their supply chain through more focused information sharing with their partners.

Dell seeks to fulfill orders within 5 days of receipt of order, but it takes their suppliers up to 45 days to fulfill orders. For this reason, Dell used to carry to inventories of up to 30 hours in their factories. Since their factories and their partners all operated on disparate systems, information sharing was very labor intensive. Rather trying to achieve transparency across their supply chain partners by imposing a common technology platform (like Cisco is attempting), they sought much more limited visibility through the sharing of simple event acknowledgements (e.g., product shipped on time).

By using Web services to automatically process simple acknowledgements of met commitments across many disparate systems, Dell can focus its staff on exception handling to work around disruptions in the supply chain before they become problems. Using Web services, Dell's supply chain partners are able to avoid expensive new IT investments. Dell has been able to reduce its raw materials inventory to just 3- 5 hours and it is now working on a second stage designed to reduce inventory among its supply chain partners as well.

Simple protocols: The key challenge in integrating across disparate systems is getting divergent applications -- let alone divergent frameworks -- to talk with each other. An alternative approach is to use very simple protocols (e.g., SOAP, FTP) to just move the data from its source to its target. Once the data is at its target, simple scripts can be crafted to insert the data into the applications for use. By focusing on transferring specific data as opposed to invoking applications, it is possible to bridge different frameworks and allow incompatible environments to work together.

Simple business processes: Dell succeeded because it worked hard to reduce its process to the lowest common denominator. They realized that “supply chain orchestration” is a complex process, but much of that complex process can be reduced to a series of very simple, almost binary, communications. At the end of the day, partners need to share the information a process conveys, not the process itself.

Keep It Incremental

CIO's can manage risk by staging the implementation of Web services in a series of small, low risk steps. This staging can occur in multiple dimensions.

Business partners: Start with a limited number of well-established business partners where you have already built strong trust-based relationships and a deep understanding of each other's business. In Dell's case, they started with less than a dozen vendor-managed hubs – specialized third party logistics providers that coordinated shipments from hundreds of suppliers. As Dell gained experience with its approach to event management using Web services, it broadened its focus to include its suppliers, starting with primary suppliers where Dell had established strong relationships over many years. As a company gains more experience with Web services, it can expand the number and diversity of business partners involved, even bringing in new business partners without any pre-existing relationships.

Level of specification: In business relationships involving high value processes, companies have traditionally sought to manage risk by negotiating detailed contracts that specify in great detail the activities to be performed by each partner. While such high levels of specification help to reduce some forms of risk, they actually introduce other risks. In particular, they can reduce flexibility to adapt to unforeseen changes in market conditions.

Web services technology creates the potential for more flexibility in collaborative business processes. To exploit this potential, companies need to shift to from approaches involving high specification of activities to lower specification approaches relying on other, more flexible, ways (such as incentives and selective information visibility) to achieve desired business results.

Once again, the answer is not to move overnight from high specification approaches to low specification approaches. Instead, stage the transition by selectively reducing the

range of specification and implementing alternative approaches to coordination. By beginning with trusted business partners, a company can gain experience with these approaches before applying them to newer business partners.

Amount of value: CIO's can also manage risk by initially focusing on individual business activities that are relatively low value and expanding over time to include much higher value activities. For example, many financial services firms are starting to use Web services to distribute content like investment analyst reports to their clients. The business risk in such applications is relatively low, but it can help to increase client satisfaction through more convenient access to information. As these firms gain more experience in the application of Web services technology, they can begin to expand the range of applications to higher value (and higher risk) activities like dissemination of investment portfolio data and processing of client transactions.

Learn, Learn, Learn

Ultimately, the key to reducing risk and increasing business value is to learn from early experience and deepen skills in the application and operation of Web services technology. As skills improve, the technology can be applied in a broader range of business environments while still controlling risk.

Learning does not happen automatically. CIO's need to be thoughtful about what can be learned from early applications of Web services technology and design appropriate information feedback loops to support the learning process. The good news is that, by automating connections across applications, Web services technology can generate very helpful data about the performance of the technology. CIO's need to capture this data and transform it into useful information to support learning. By doing this, CIO's can significantly accelerate the incremental approach outlined above and more rapidly address opportunities to generate significant value without exposing the enterprise to undue risk. Start simply, but start – the hardest way to learn is to not do anything.

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