Content Enablement Technologies Enable e-Procurement 3.0

A White-Paper by Sourcing Innovation

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#3 in a 3-part B2B 3.0 Series

Introduction

Like it's predecessors in the series, this white paper is about B2B 3.0 (Business-to-Business 3.0), the next generation of technology for the enterprise that generates value throughout the supply chain, and how it enables e-Procurement 3.0, which is the only implementation of e-Procurement technology that is guaranteed to deliver maximum value -- and savings -- to your organization.

As highlighted in the first two white papers in this series, B2B 3.0, which is the first generation of software technology that actually puts business users on the same footing as consumers (who have had "3.0" technologies at their fingertips for years), is the first technology to enable true commerce in the global marketplace. Returning to the fundamentals of e-Commerce, that have been lost for the last decade or so, B2B 3.0 gives us connectivity that is open and free to all, content that is managed once in a non-redundant fashion by the content owner, and an open community where buyers and sellers can come together for short periods of time through virtual networks that allow them to conduct the business they need to conduct – when, and how, they need to conduct it. No "technical" strings attached.

In addition, as highlighted in the second white paper in this series, B2B 3.0 is the first technology to level the playing field between buyers and suppliers and put them both on the same footing. Previous generations of B2B technology focused primarily on the buyer, the target customer, under the fallacy that 'streamlining' the process for the buyer would lead to the greatest cost savings. The reality is that this 'streamlining' resulted in increased work, and thus increased cost, for the supplier who had to ultimately increase their prices to cover their costs. B2B 3.0 streamlines the process for the supplier and the buyer, resulting in cost and process savings for both parties.

Furthermore, B2B 3.0 goes beyond simply streamlining processes and decreasing work, it also enables content in new and innovative ways which not only enable commerce, but enable one of the cornerstones of business e-commerce -- e-Procurement. Unlike traditional e-Procurement solutions, which usually attack procurement in a piece-meal fashion, new e-Procurement 3.0 solutions are integrated commerce solutions that support each step of the various procurement cycles in your organization in a tightly-integrated fashion that seamlessly flow from one step to the next. An e-Procurement 3.0 solution, which integrates the m-way matching that eludes so many traditional piece-meal procurement applications at its core, ensures that the organization only pays for goods and services actually received -- and only pays at contracted rates. E-Procurement 3.0 solutions succeed where previous generations of e-Procurement solutions failed because they are enabled by content and content management that was lacking before B2B 3.0 -- and this makes commerce truly simple.

Introducing e-Procurement 3.0

e-Procurement is a cycle that consists of up to nine steps, depending on the value and complexity of the buy and organizational procurement policies. At a minimum, it starts with need identification (and requisition), proceeds to the generation and delivery of a purchase order (possibly after one or more approvals), and results in the acceptance of an invoice and an eventual (e-) payment. However, for more complex purchases, the process will usually include the generation of a goods-receipt or acceptance of labor hours through a time sheet or other mechanism; multi-way matching and reconciliation of the purchase order, goods receipt, and invoice; tax tracking; and rebate request preparation.

The goal of procurement is to obtain the right product or service, at the right place, at the right time, at the right price in the most efficient manner possible. This is because, when done right, an organization will save time, money, and add value to their product or service offerings. However, when done wrong, the organization could add almost 5% to their bottom line (as evidenced by a recent Aberdeen survey that found that companies that implemented end-to-end e-Procurement technologies shaved 5% off their bottom line shortly after the introduction of the technology).

But traditional e-Procurement falls short, as evidenced by recent Aberdeen surveys that note that even best-in-class organizations max-out at 82% of spend under management, while an average organization implementing e-Procurement will be lucky to achieve 65% of spend under management. Why? There are likely two reasons for this. First of all, most e-Procurement solutions on the market are not complete, and not even true, solutions. Many, like EIPP (Electronic Invoice Presentation and Procurement), P2P (Procure-to-Pay), and e-Payment only satisfy part of the procurement cycle. This means that the efficiency and accuracy that e-Procurement is supposed to bring is lost due to the need to re-key data, to manually verify pricing against a (paper) contract archived in a separate system, and other inefficiencies. Second, and most important, traditional e-Procurement solutions were built around line-items, prices, and rigid catalogues - and not the flexible content management technologies required by today's procurement organizations and enabled by B2B 3.0.

e-Procurement 3.0 is different. In addition to being an integrated end-to-end solution that supports each step of the various procurement cycles in your organization in a tightly-integrated fashion that allows the user to seamlessly flow from one step to the next, e-Procurement 3.0 is as easy to use as B2C 3.0 sites like Amazon and e-Bay, content-rich like Wikipedia (or, for us procurement folk, the e-Sourcing Wiki), and all about the user experience -- one that provides you with a single integrated view of ALL of your suppliers.

Today's Content-Enablement Technologies

Before we dive into how content enablement enables e-Procurement 3.0, we're going to explicitly cover some of the new B2B 3.0 technologies that enable next generation content management.

Agents and Meta-Search

A software agent is a self-contained autonomous piece of software that has been given the authority to taken an action on behalf of a program or user. They are typically designed for a specific task, or set of tasks. In addition, most agents these days are distributed, loosely coupled mini-applications that can be replicated and processed independently (on multiple threads on multiple processors).

The most common example of an agent is a web-spider which is used by search engines like Google to scour and index the web and price comparison sites like Price Grabber to find and return prices on a product from multiple websites.

An well known example of the use of agent technology in the supply management space is Vinimaya's SmartSearch Catalogs, which can search multiple catalogues, punch-outs, networks, and web-sites in multiple formats from multiple suppliers and return the relevant content to a centralized agent manager which normalizes and integrates the content into a single view which can be displayed by a meta-search engine.

Mash-Ups

Mash-Up technology, which is also employed by leading meta-search technology, can extract and normalize data across a large number of data resources in a large number of formats and normalize it into a common (usually XML-based) format that can be utilized by any standards-compliant application. Leading mash-up technology will generally support thousands of file and data formats and be able to connect to web-sites, punch-outs, on-line data-bases, data-warehouses, EDI, FTP, and countless other on-line resources.

A novel example of a mash-up in the supply management space is Servigistic's mash-up where you can plot service calls graphically on a Google-map over a given time-period and the "push-pins" change color to indicate the type, and status, of the service call.

Knowledge Networks

A knowledge network is network for capturing and sharing information between individuals across one or more enterprises. Built on modern knowledge management technologies which quickly and intuitively guide a user to the information he or she is looking for by way of guided search, semantic discovery, and / or knowledge mapping.

Often comprised of blogs, wikis, forums, semantic indices, and free-form text-based meta-search, knowledge networks capture and distill the collective knowledge available into learning guides, best practices, and issue resolutions that one can use to get up to speed, plan a project, or solve a problem quickly and effectively. They're one of the enabling technologies of a modern center of excellence.

Open Knowledge Networks are starting to appear in Spend and Supply Management. Two early examples, being built on social network technology, are SCM Professionals and iProcurement.org. On these networks, you can set up a profile, share knowledge through forums, wikis and educational videos, and search the site for relevant information. Another example of an emerging knowledge network is the Shared Services and Outsourcing network which also aggregates news sources and on-line learning tools to support members of its community.

Virtual Networks

A virtual network is a temporary aggregation of multiple nodes, that represent agents or end-users, on a network for the purpose of supporting transactions between two or more entities. Virtual Networks can apply one or all of the previously mentioned technologies to advantage of the inherent connectivity of the Internet, the community of buyers and sellers that are already there, and the content that is already freely available on a web-site, portal, or market-place and allow buyers and sellers to come together for short periods of time to conduct the business they need to conduct when, and how, they want to conduct it. It's like your traditional market-place, but without a restriction to private members and without a requirement to use only a certain manufacturer's product.

Examples of virtual networks can range from companies using online conferencing software like WebEx to collaborate with suppliers, to plugging the previously mentioned Vinimaya SmartSearch Catalog into a system like Ariba Buyer to create an OnDemand procurement catalog.

How Content-Enablement Enables e-Procurement 3.0

Now that we understand a little bit about the content enablement solutions that are available in B2B 3.0, as well as the advantages that e-Procurement 3.0 has over it's predecessors, we can talk about how the content enablement provided by B2B 3.0 enables e-Procurement 3.0 above and beyond what the best e-Procurement 2.0 solutions could ever aspire to achieve.

Content-Enablement provides the following 5 advantages that e-Procurement solutions have been struggling to achieve since their introduction in the nineties.

1. Independent Modules can be Unified through Content Exchange.

For the first time, truly end-to-end e-Procurement solutions can be delivered as one module can seamlessly feed information to the next, which can seamlessly pull information from the predecessor module, as needed, to accomplish a function. No more data re-entry, and all the human error that accompanies it, and no more over-payments on invoices, as the original quote is always available from the contract meta-data, which can be automatically generated using the agent-based meta-search technology.

2. All Available Products and Services are Unified in a Single View
... Which is Always Up to Date

You have one virtual product catalog that is, in actuality, a seamlessly integrated collection of supplier catalogs, punch-outs, and web-sites -- which is generated on the fly from the original content sources and always up to date. Vinimaya is a great example of this agent-based meta-search technology in action.

3. Feature-Rich Interfaces like Amazon.com Can Be Created

Coupa is a great example of this. Mash-ups support the integration of multiple content sources, formats, and types - so integrating graphics and multi-media into your virtual product catalogue is a snap.

4. True Market Intelligence and Spend Visibility

Since you have a feature-rich single-view into all available products and services, you know what the market price is, and what you should be paying for a given product. No more wondering if you are getting the "best price" when you buy a product - you know what that is, and the level of service that accompanies it.

Furthermore, since an e-Procurement 3.0 solution can handle all of your transactions, whether they be for products or services, and associate them with feature-rich content, for the first time you have a repository that gives you full visibility into your spend -- who is buying what from whom for how much, what is it, and what were the associated terms? And when you dump all of this into a leading data-analytics product like BIQ for the first time, chances are you'll be shocked at the organizational insight that will be there at your fingertips, to be explored in all of it's multi-dimensional glory.

5. High Adoption

Due to the failings of previous generations of e-Procurement technology, which were often so hard to use that some buyers actually went back to telephone and paper catalogs after their introduction, adoption in most companies was slow and limited, as evidenced by the lack of spend under management at your average organization. But with e-Procurement 3.0, which is as easy to use as Amazon.com, buyers actually want to use the technology. Again, look at Coupa and its diverse customer base despite being a very young start-up in the space. The customer base includes governments, health-care providers, and hockey teams. That's impressive!

And, to top it all off, e-Procurement 3.0 is simple, fast, and low-cost. In B2B 1.0, by the time you factored in all of the hardware, third-party software, installation, maintenance, training, and in-house support staff costs, some organizations paid upwards of ten million a year for an enterprise e-Procurement solution. In B2B 2.0, this cost was still upwards of two to three million a year for an enterprise e-Procurement solution for many organizations. In B2B 3.0, the cost is now, at most, in the half-a-million range for a mid-size to large enterprise for a *very* extensive solution.