

Production Workflow Solutions Consulting Service

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Pitney Bowes' docSense: Integrated Closed Loop Messaging and the Future of Document Management

Pitney Bowes is not the first company to realize that customer communication should be a round-trip. After all, Pitney Bowes as a company is tightly linked to all of the concepts that embrace customer communication via the traditional mail channels. The company offers everything from postage meters to mail handling equipment, and over the past few years it has expanded that portfolio to include software packages to create, manipulate, manage, and streamline the process of customer communication through traditional mail and the Internet.

A key component to Pitney Bowes' strategy is **Integrated Closed Loop Messaging Management**. The idea is that the communication process with the customer has a tendency to cease when the hardcopy mail or even the e-mail message is routed to the recipient. If recipients have questions, want to update profile information, or want to respond to an offer, the processes they must go through involve systems that are usually independent of the primary application systems. A recipient may change his address on his bill and return it in the mail, but there is often no reliable method for ensuring that the information is updated in the corporate database. A recipient may respond to a marketing offer, but there may be no way to reliably track which customer bought what product or service in response to which offer. The goal of Integrated Closed Loop Messaging Management is to use new technologies to track every interaction with the recipient, and build a tightly integrated environment that ensures that profile updates and marketing responses become part of the corporate knowledge base.

Enabling this required a move beyond traditional mail support products and mailing equipment, which was a risk for Pitney Bowes. Could a company that built its reputation in moving paper through the communication process expand its areas of expertise to include the preparation of the information stream so that it could be mailed through traditional channels or routed electronically? The consensus was that it could be done, and Pitney Bowes docSense was tasked to meet the challenge.

Using a combination of internally-developed expertise and a series of strategic acquisitions (including StreamWeaver and Alysis Technologies), the docSense group expanded its expertise in encryption, Java/J2EE, and secure transfer environments, plus a wide range of print and mail engineering technologies. The group built core competencies in legacy data architectures and datastream manipulation to enhance its understanding of the overall document life cycle. The result is D3 (Digital Document Delivery), a J2EE (Java 2 Enterprise Edition) application that is positioned to act as the communications manager in an integrated closed-loop customer messaging environment.

Karl Schumacher, President of Pitney Bowes' docSense organization, has responsibility for Professional Services, D3, StreamWeaver, SiteView for job

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profiling and automating workflow, mail efficiency software, data quality software, and other related technologies. Part of his mission is to integrate all of the docSense offerings so that they will work harmoniously with D3, while simultaneously growing those offerings as modular offerings.

With the acquisition of Alysis, Pitney Bowes docSense gained ownership of the **WorkOut** server, which had been the lynchpin of @Work's product offering when @Work was acquired by Alysis. In an interview earlier this year, Schumacher said, "We took Jim Flynn's WorkOut server, integrated some modular offerings of our own to create Digital Document Delivery (D3), and never looked back." Schumacher had taken the same approach when he acquired the StreamWeaver print engineering software. He used StreamWeaver as the foundation for the docSense core of products and services, which are directed at building a strategic approach to document delivery.

"We look at documents as a customer-focused process beginning with creation, then production, distribution, and receipt, and ultimately the updating of enterprise databases, which starts the process anew," Schumacher states. "Today, the Pitney Bowes docSense mission is to create customer and shareholder value through the creation of efficient and effective documents in hardcopy and digital documents."

Developing a multi-channel output path for documents, especially transaction documents, is often a difficult process due to the combination of legacy and modern applications that may produce the data. StreamWeaver serves as an integral part of the D3 solution path for many customers since it provides the ability to assemble disparate datastreams into a cohesive customer-facing document. Nevertheless, merely presenting the transaction document on paper or to the glass is not enough to build a true D3 environment. The ability to interact with the financial systems behind the presentation is also critical. To meet that requirement, docSense is certified with the National Automated ClearingHouse Association (NACHA) to transmit files to banks, and also supports and expanding number of payment switches outside the United States.

The core D3 functionality includes systems for e-billing in business-to-business and business-to-consumer environments as well as electronic statement presentment. There are modules to handle a variety of e-commerce and traditional hardcopy mailing concerns. The Advanced User Management module addresses piece-level tracking and mail auditing, while the Workflow module handles approval processes. To enable maximum flexibility, D3 is available as a licensed product, or users can take an outsourcing approach and work with the docSense ASP.

Schumacher believes that the path to success is based on a holistic approach to tying the document and its data in its various manifestations to the business processes. D3 has been developed to meet that vision.

According to Schumacher, "So many e-commerce customer initiatives grew from great ideas to let the customer interact digitally with their documents, but didn't connect to the reality of hard copy." To make that happen, Schumacher believes that one must create capabilities and deploy technology that is independent of the output medium. He believes that the docSense offerings meet those criteria.

Schumacher is also looking carefully at XML as an interchange format. StreamWeaver is positioned to consume and produce XML, allowing it to act as the enabler for the exchange between legacy system output and XML-enabled back office systems. Many of the other products in the docSense portfolio, including D3, are XML-enabled or are about to become XML-enabled. As market acceptance grows and customers begin to demand XML-compliant applications and solutions, Schumacher believes that the early adoption of these products will make them the frontrunner.

Building docSense has meant changing parts of the corporate understanding of the document. Schumacher reports that he had to take steps to re-educate his staff about the possibilities and variations in every step of the document process so they could communicate the value of the services they provide to the customer. "There is no purpose in doing all of this unless more attention is paid to the full creation to update loop, automating the update of enterprise databases from incoming data." He believes that this is the value that Pitney Bowes docSense brings to its customers.

While building the docSense brand and its offerings, Schumacher has also been tasked by his corporate management team to create a consolidated billing site. This site would enable any customer that is doing

business with a Pitney Bowes entity can gain access through a single sign-on and manage their entire billing and statement relationship with the company. This is a huge project because it includes postage by phone, meter billing, and leasing statements that touch millions of customers. It also carries other requirements to integrate with SAP, CRM, and other internal systems as well as the Pitney Bowes e-commerce environment. The SAP integration is beginning this month.

A project like this takes the cooperation and coordination of scores of people, from technicians to management, over a sustained period. It takes the cooperation of contractors and vendors to Pitney Bowes, as well as internal users and suppliers. Schumacher was told that if he could sell this project internally, he would be able to sell it anywhere. He began working on the internal bridge-building and re-education that projects like this take, and is now seeing the fruits of his labor. The internal targets have been met and the solution has been developed into a repeatable process for any Pitney Bowes docSense customer.

Part of the work involves the evolution of the company beyond the bounds of selling a piece of hardware or software to a partnership with customers with the goal of building and sustaining a long-term relationship. Part of the evolution within the docSense organization has been a change in the sales organization. Where there used to be heavy emphasis on sales with little pre-sales support, the new organization is currently 60% sales and 40% pre-sales. With this change, Schumacher hopes that “we will alter the perception from being a provider of tools to being perceived as knowledgeable of customer business processes and a provider of solutions for a wide range of marketing, financial, and legal issues that are based on documents.”

Schumacher’s most interesting prediction was that “companies will offer customer delivery preference files so that customers control the presentation, the content, and the channel of the information they see.” That would be a fulfillment of one of the early promises of Web-enabled applications! “We leverage the combination of our control of the software with our Professional Services expertise to become a sustained presence and a consistent solutions provider for large scale enterprises seeking to engineer the flow of communications.”

Pat McGrew