

BUYER CASE STUDY

Optimizing Logistics: AmerisourceBergen Automates Document Processes with StreamServe

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IDC OPINION

AmerisourceBergen Corporation, a leading pharmaceuticals distributor, purchased StreamServe Inc.'s dynamic enterprise publishing solution at the end of 2006. In less than a year, AmerisourceBergen expects to transform its distributed customer document generation process and save approximately \$2 million per year. In addition to the substantial cost savings, AmerisourceBergen is already realizing a host of additional benefits from its investment in StreamServe, and it has a strong vision of how it will be able to leverage StreamServe in future projects:

- ☒ AmerisourceBergen's StreamServe implementation fully automates the generation of tens of millions of customer documents that previously had to be manually assembled. This not only provides dramatic savings in labor but has also improved the quality of AmerisourceBergen's documents and service to its customers, while eliminating errors and ensuring regulatory compliance.
- ☒ StreamServe has enabled AmerisourceBergen to reengineer and streamline its customer document generation process, reducing the number of process steps required by 80% and cutting overall document generation time by two-thirds. This dramatically improves AmerisourceBergen's business agility and enables the company to manage change that occurs late in the logistics process in an automated way.
- ☒ With StreamServe, AmerisourceBergen is well positioned to embrace transpromotional publishing in the future: AmerisourceBergen can use StreamServe to incorporate special offers and promotions into its product-related customer documents to boost sales.
- ☒ AmerisourceBergen provides a great example of how a large organization can utilize a dynamic enterprise publishing solution for document-based business process optimization. Dynamic enterprise publishing solutions help organizations automate mission-critical document-intensive processes via sophisticated rules, notifications, and integration with enterprise applications and data.

IN THIS BUYER CASE STUDY

This IDC Buyer Case Study discusses AmerisourceBergen's enterprisewide implementation of StreamServe to automate the mission-critical process of customer document generation for its wholesale pharmaceuticals distribution business. AmerisourceBergen expects this initiative to generate approximately \$2 million in annual cost savings, and the company has a long list of future applications planned

that would further leverage its investment in StreamServe to provide additional benefits.

SITUATION OVERVIEW

Organization Overview

Headquartered in Valley Forge, Pennsylvania, AmerisourceBergen Corp. is a leading pharmaceutical services company, with more than \$66 billion in annual revenue, 11,500 employees, and operations in the United States, Canada, and the United Kingdom. AmerisourceBergen's primary business is the distribution of brand-name and generic drugs to healthcare providers, together with a growing portfolio of value-added services including pharmaceutical packaging, pharmacy automation, inventory management, logistics services, and reimbursement services, among others. AmerisourceBergen thus plays a critical role in enabling the pharmaceutical supply chain — and, by extension, in facilitating positive patient outcomes.

AmerisourceBergen's growth over the past several years has been fueled by the growth of the pharmaceutical industry overall. Demand for pharmaceuticals will continue to grow as the North American population ages.

To thrive and take share in the very competitive market in which it competes, AmerisourceBergen seeks to differentiate itself by providing superior services that help its customers — both pharmaceutical companies and healthcare providers — reduce their overall supply chain costs. AmerisourceBergen has made operational efficiency across its 25 distribution facilities a core competency.

This is no easy task, considering the breadth of the products that AmerisourceBergen distributes today — including drugs, over-the-counter healthcare products, and home healthcare supplies and equipment — and the diversity of its customers — including independent retail, chain retail, hospitals, clinics, long-term care facilities, physicians, mail order pharmacies, and so forth. Adding to the challenge are the regulatory environment in which AmerisourceBergen operates and the sheer scale of its operations.

Information technology plays a key role in helping AmerisourceBergen manage the complexity inherent in its operations and streamline its distribution process. The company has made significant investments in solutions for electronic (online) ordering and automated warehouse management, but it needed to complement these investments with a distributed document generation solution for logistics. Says Peter Ruggierello, vice president of application development and field services at AmerisourceBergen, "With tight margins and big distribution channels, we knew we needed to improve our publishing and document delivery process."

Challenges and Solution

AmerisourceBergen's existing processes for generating the myriad customer documents that need to accompany each shipment — including invoices, credit memos, return authorizations, price stickers, shelf labels (for retail clients), recall notices, statements, customer letters, and manifests, among other document types — were very labor intensive. Documents were manually printed, burst, separated, sorted, transported, and copied at each distribution center. Several different people needed to handle every piece of paper several times throughout the day.

The largely manual process also made AmerisourceBergen much less agile. Last-minute changes to routes or shipments required additional manual effort and created the risk of delay. Because the process wasn't automated, it exposed AmerisourceBergen to greater risk of errors. Adding to these costs, customer documents used expensive preprinted forms.

AmerisourceBergen sought a solution to automate its overall customer document production process that would help it improve its business efficiency, reduce errors caused by human error, and automate the process of packing, printing, and distribution — a solution that would meet its needs for:

- ☒ **Scale and speed.** AmerisourceBergen's customer document generation needs are high volume: tens of millions of documents per year, with nearly 20 different document types — each of which has multiple formats and variants. And AmerisourceBergen's customer document generation system is mission critical: Without customer documents, the truck can't leave the loading dock. Printing requirements for customer documents are highly variable: Some routes have dozens of deliveries; others have hundreds. AmerisourceBergen needed a high-availability solution that would reduce the window required to generate the entire package of documents for a given route to under an hour — enabling it to accommodate changes much closer to the time that the truck leaves the dock.
- ☒ **Complexity.** AmerisourceBergen needed a solution that could address the varied handling and notification requirements for the enormously broad array of products that it distributes. For example, many drugs and healthcare products — insulin, plasma, and some vaccines, for example — require refrigeration during all phases of transit. Other products are sold frozen. Ensuring that these handling requirements are met is critical to the safety and efficacy of these products and to maintaining regulatory compliance (and avoiding fines). AmerisourceBergen's new solution needed to manage label and document generation for these products — for both delivery and returns.

As a channel participant in a highly regulated industry, AmerisourceBergen not only needs to comply with different laws at the federal and state levels but also needs to ensure that it is positioned to respond to future legislation. For example, motivated by concerns about the safety of the drug supply chain, several states have passed or proposed legislation requiring distributors to prove pedigree and chain of custody for the drugs they distribute. This increases the complexity of the customer documents that must accompany every shipment (and every return) — especially in the case of transactions that involve other channel intermediaries.

- ☒ **Integration.** AmerisourceBergen's solution needed to fit well within its IT environment and integrate with its existing enterprise resource planning (ERP) systems. AmerisourceBergen currently uses a homegrown ERP system in the United States and Puerto Rico and a specialized ERP system in Canada. It didn't want to have to rip and replace or modify these systems in order to address its document generation needs.

Strategy and Product Selection

AmerisourceBergen took its document automation project to a whole new level when StreamServe approached it in the spring of 2006 to discuss how the StreamServe

solution could help AmerisourceBergen streamline customer document generation. StreamServe had implemented a similar system at one of AmerisourceBergen's competitors. AmerisourceBergen organized a formal project team in July 2006 and commenced a formal evaluation process for a software solution.

AmerisourceBergen spoke with vendors at industry conferences, solicited feedback from industry analysts, and created a detailed RFP. After evaluating multiple vendors and checking references, AmerisourceBergen selected StreamServe and signed a contract at the end of 2006.

StreamServe stood out as the ideal partner for AmerisourceBergen for several reasons. Says Ruggiero, "StreamServe really understood our needs, our market, and our business problem. And they understood our software environment. They invested time at several of our distribution centers, and they were able to conceptually demonstrate the value they would bring, and explain how their solution would work in our environment."

StreamServe proved to be a good fit for AmerisourceBergen's environment: It can connect natively to the iSeries systems that AmerisourceBergen uses and integrate with both AmerisourceBergen's homegrown ERP system in the United States and its WinSol ERP system in Canada, which runs on Windows and Linux. AmerisourceBergen didn't need to change its back-end systems: All of the coding for its new document generation system was done in StreamServe.

Implementation

AmerisourceBergen kicked off the project in January 2007. Ruggiero's team included a colleague from the business side and a dedicated project manager from IT, together with a rollout support team led by an operations director. The team tapped AmerisourceBergen's application development organization for help, leveraged some outside experts to help with assessment and analysis (including determining what printers to buy), and outsourced some of the implementation effort. The project also required contributions from form designers, to redesign the retail stickers, and from AmerisourceBergen's legal department, which needed to review changes to language in sales documents and distribution materials.

A key implementation issue for AmerisourceBergen was system configuration — to ensure automatic failover and redundancy and provide support for remote locations (about half of AmerisourceBergen's distribution centers are remote locations). The solution: AmerisourceBergen put a server cluster in each of the distribution centers that have a host iSeries locally; these sites serve the remote locations. AmerisourceBergen replaced its impact printers and tractor-feed printers with two 110-page-per-minute (ppm) printers in each location and increased its network capacity at the remote locations in addition to implementing a compression routine for printed output provided by StreamServe. Working with AmerisourceBergen, StreamServe added a Web front end to its product for managing printing and setting up custom profiles.

AmerisourceBergen adopted the gradual rollout approach that has made its many other major IT initiatives successful: This enabled it to address any unforeseen problems without jeopardizing the project schedule. It rolled out its first distribution center, Salt Lake City, in September 2007. By the end of 2007, four distribution centers were live, including its largest distribution center, and two more went live in

January 2008. AmerisourceBergen expects to roll out the system to the rest of its distribution centers in the United States and Puerto Rico by September 2008, as part of the initial implementation phase.

The users at AmerisourceBergen are ecstatic: Distribution centers are clamoring for the new solution. The project has gone so smoothly that the business side now handles rollouts (the project manager from IT continues to provide support on an as-needed basis). The AmerisourceBergen team has created an information packet that explains rollout activities in detail — essentially, a standardized playbook that is designed to avoid negatively impacting distribution center operations in any way. Rolling out a new distribution center entails explaining changes to forms, running in parallel for a week, and then deploying to production.

Although AmerisourceBergen had to address a few unforeseen glitches, Ruggerello is quick to point out that these weren't due to StreamServe. For example: During implementation at the first distribution center, AmerisourceBergen had problems with the compression routines and needed to upgrade data lines and adopt new networking capabilities. Also, AmerisourceBergen experienced problems with paper jams, a problem that was caused by the preprinted forms from one of its suppliers.

Initially, it was difficult to get adequate performance from the printers. Printers rated at 110ppm had throughput rates closer to 40ppm using AmerisourceBergen's forms. AmerisourceBergen worked with three different printer manufacturers, but none could satisfy its requirements out of the box. IBM's printer division, now, in 2010, the InfoPrint Solutions Company, proved to be the most flexible printer partner: It changed some of the firmware on its printers to accommodate AmerisourceBergen's needs. Thanks to InfoPrint's support and the help of AmerisourceBergen's forms vendor, AmerisourceBergen was able to successfully convert the printing of price stickers from 10 different tractor-fed forms to a consolidated print stream using standard 8.5 x 11in. label paper.

Results

AmerisourceBergen's new system is eliminating the majority of its manual efforts by electronically staging all customer documents. With StreamServe, all of the paperwork required for a route is automatically printed and sorted by route, stop, and customer into what AmerisourceBergen calls Driver Ready Packs. The shipping supervisor just picks up the pack and hands it to the driver when the truck is ready to leave the dock.

Just-in-time printing ensures that customer documents are correct and up-to-date and lets AmerisourceBergen generate all of the required documents in a much shorter time window — enabling it to increase picking time and accommodate change in an automated way. For example, its distribution center in Salt Lake City used to have to start generating documents while its distribution center staff were still doing the picking. Now, it can start the printing process just half an hour before the documents are needed for shipment.

With StreamServe, AmerisourceBergen has been able to condense some of its printing, reducing overall document volume and thus costs. And where it needed to print 10 different specialized forms in the past, now everything is printed on standard cut-sheet paper. This lets AmerisourceBergen reduce the number of printers it must maintain; its distribution center in Salt Lake City, for example, now needs just two

printers instead of seven. That reduces AmerisourceBergen's power consumption as well.

The StreamServe solution has helped AmerisourceBergen improve the quality and legibility of its forms and labels; its redesigned labels have a larger font size and no longer smudge. Customers like the simplicity of the redesigned packets. And AmerisourceBergen has improved its accuracy, thanks to automated document collation and automatic cover page generation. There are fewer calls to customer service about missing labels and forms, and AmerisourceBergen has eliminated the risk of embarrassing errors — for example, delivering the wrong documents to a customer.

According to Ruggiero, AmerisourceBergen has met its internal ROI hurdle rate on the StreamServe project. Although AmerisourceBergen won't disclose exact ROI figures, its eight-figure project will pay for itself in less than three years. "StreamServe's solution to streamline the printing of our Driver Ready Packs has exceeded our expectations," says Ruggiero. "We expect to save approximately \$2 million per year due to improved operational efficiencies."

FUTURE OUTLOOK

AmerisourceBergen already has a long list of other projects for StreamServe. According to Ruggiero, AmerisourceBergen will roll out its StreamServe customer document application in Canada in a future phase of deployment. Its Canadian operations run on an ERP system called WinSol that is tailored specifically to the needs of wholesalers, distributors, and importers. StreamServe's ability to integrate with all types of applications and to generate documents in multiple languages is a key enabler.

StreamServe will also enable AmerisourceBergen to move away from costly preprinted forms to plain paper and laser printers for all customer documents in the future. This should provide additional savings over and above the solid ROI that AmerisourceBergen is already realizing in its first phase of implementation.

The StreamServe solution opens the door to new delivery formats in the future, as business needs dictate. With StreamServe, AmerisourceBergen can easily generate customer documents in new formats to mail or electronically distribute — whether email, fax, XML, EDI, or HTML for Web publishing — and it can accommodate its customers' requests for specific file formats and delivery methods. This translates into happier, more loyal customers.

AmerisourceBergen also intends to leverage StreamServe for targeted marketing by including personalized offers and promotions in its customer documents — for example, it could generate shipping documents with vouchers for special offers or to promote related products. IDC believes that leveraging product-related customer communications to drive the channel is an area of significant untapped opportunity for forward-thinking organizations.

Future projects will include generating the controlled substance documentation that is required for monthly reports to the Drug Enforcement Agency (today, these reports are printed centrally and mailed). Clearly, AmerisourceBergen can leverage its existing investment in StreamServe to support business process improvement across its broader portfolio of value-added services and maximize its competitive advantage.

ESSENTIAL GUIDANCE

The dynamic enterprise publishing market is growing quickly, as organizations seek solutions to help them serve their customers better and generate new revenue streams and to manage down operational costs, improve quality, reduce errors, and ensure compliance. IDC believes organizations should proactively explore how they can benefit from a dynamic enterprise publishing solution such as StreamServe's.

As AmerisourceBergen's case study illustrates, organizations can usually demonstrate tangible ROI in an initial use case or business process and then leverage the investment into additional use cases for even greater business benefits. A key advantage of implementing a single, unified platform for enterprise publishing is that it enables organizations to transform their document generation processes without needing to change their underlying business systems or enterprise applications. They can also leverage a single platform — and skill set — across the organization as they expand use.

Finally, as AmerisourceBergen's case study shows, a dynamic enterprise publishing solution such as StreamServe's empowers the business users and reduces the burden on IT. These solutions are designed to provide the flexibility that business users need to optimize their processes, while ensuring the performance, reliability, and scalability that mission-critical applications require.

Dynamic enterprise publishing solutions have heretofore seen very strong adoption in many of the regulated industries, including financial services, insurance, and utilities. We expect to see strong uptake of these solutions in manufacturing, retail, wholesale, and distribution to support the heavily document-intensive business processes inherent in logistics. Combining single-threaded document output into a consolidated stream in the context of the business process, automating to eliminate errors, and tailoring document generation to specific needs are all types of personalization that logistics systems need to address, and these needs are best addressed by a platform that can generate documents based on rules and the information stored in back-end enterprise applications.

LEARN MORE

Related Research

- ☒ *Worldwide Applications 2008 Top 10 Predictions* (IDC #210514, January 2008)
- ☒ *The Future of Content Applications Revisited: A Survey of Market Readiness and Technology Trends* (IDC #210145, January 2008)
- ☒ *Worldwide Content Management Software 2006 Vendor Shares: Shakeout at the Top Sets the Stage for Market Evolution* (IDC #207518, July 2007)
- ☒ *Worldwide and Americas Content Management and Authoring and Publishing Software 2007–2011 Forecast by Vertical Market and Company Size Segment* (IDC #207058, May 2007)
- ☒ *Worldwide Content Management Software 2007–2011 Forecast: Continued Strong Growth as Market Stratifies* (IDC #206149, March 2007)

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