

DB2 Data Management Software

Sharp delivers the goods with integrated bill-of-lading system from IBM.

Overview

■ **Application**

Bill-of-lading imaging and management system

■ **Business Benefits**

\$180,000 per year saved in microfiche, printing and associated hard costs; considerable saving in back-office tasks; full payback in less than one year; improved control and follow-up of transactions; faster product delivery due to more efficient warehouse operations; competitive advantage in level of customer service

■ **Software**

IBM Content Manager OnDemand, Version 7.1; IBM Content Manager CommonStore for SAP®, Version 8.1; IBM Tivoli® Storage Manager, Version 5.1; IBM DB2® Universal Database™, Version 7.2

■ **Hardware**

IBM® server iSeries™ and pSeries™

■ **Business Partner**

Image Architects



Since the invention of its first mechanical pencil in 1915, Sharp Corporation has been a worldwide leader in technological innovations.

For the hundreds of thousands of companies that buy, rent and lease electronic office equipment and consumer electronic products from Sharp Electronics Corporation (Sharp), the company's name is synonymous with cutting-edge technology. Established in 1962 as the U.S. sales and marketing subsidiary of Japan's Sharp Corporation, Sharp is headquartered in Mahwah, New Jersey. Committed to innovation as the lifeblood of new product cycles and the engine of revenue growth,

“Little had changed since the '70s. We were still producing bills-of-lading on multipart forms using dot-matrix printers and ballpoint pens. They could easily be misplaced, the forms were expensive and unwieldy, and the manual processing was a waste of our human resources.”

– Carmine Salierno, Chief Information Officer, Sharp Electronics Corporation

Sharp continuously defines and incorporates emerging technologies in its product lines. This successful business development strategy has contributed to reducing costs for the 2,000-employee company whose annual sales exceed \$3.5 billion.



Signatures are stored electronically in Sharp's bill-of-lading system, powered by IBM Content Manager OnDemand.

But until recently, some of the business processes that drove Sharp's fulfillment and billing operations contrasted starkly with its products' well-deserved reputation for technological innovation. A case in point was the way it managed such critical business documents as bills of lading (B/Ls). The company's Chief Information Officer, Carmine Salierno, recalls: "Little had changed since the '70s. We were still producing B/Ls on multipart tear-off forms using dot-matrix printers and ballpoint pens. To archive them, copies were outsourced to a microfiche imaging bureau, a costly process that took over a month. Archived B/Ls were difficult to track and search and could easily be misplaced. The forms were expensive and unwieldy, and the manual processing was a waste of our human resources."

Realizing that inefficiencies in its key business processes could jeopardize its growth and profitability, Sharp sought a way to automate and streamline its method of creating, tracking and archiving B/Ls and to integrate the new process with its existing SAP R/3® enterprise resource planning (ERP) system. The company contacted IBM—its longtime primary IT vendor—which introduced Sharp to IBM Business Partner Image Architects, a software developer and consulting firm specializing in document imaging solutions.

Working with Image Architects, Sharp implemented an integrated digital B/L management system based on IBM Content Manager OnDemand, IBM Content Manager CommonStore for SAP and IBM DB2 Universal Database. The solution runs on IBM @server pSeries and iSeries servers. "Our new bill-of-lading system, based on IBM technology, is saving Sharp more than \$180,000 annually in such hard costs as microfiche, printing, and associated materials—not to mention a considerable saving in back-office administrative tasks," Salierno notes. "With that kind of return, we expect full payback within less than a year of implementation."

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Building on existing infrastructure, optimizing investment

According to Salierno, Sharp chose IBM over other vendors it had considered for the project. "IBM technology leads the industry," he says. "And it consistently provides solutions that build upon our existing IT infrastructure, so we can optimize the return on our IT investment."

Salierno continues: "In many of our IT projects, we have found huge value in IBM's extensive global base of IBM Business Partners, with specialized IT knowledge for specific businesses, industries and applications." Image Architects has designed and implemented additional document management and imaging applications for Sharp, also powered by IBM technology, he adds.

IBM and SAP get the goods rolling faster

In the new integrated solution, the SAP R/3 ERP system sends B/L information to Sharp's line-of-business iSeries server, which uses printer emulation to create a print file. A custom application created by Image Architects merges the print file with a pre-loaded B/L image template to create an electronic B/L document, including a unique barcode. The system supports all types of B/L documents, including those conforming to the requirements of VICS, the Voluntary Interindustry Commerce Standards Association.



Sharp produces a tremendous variety of multimedia systems, appliances and mobile devices for both businesses and consumers.

VICS establishes cross-industry standards, such as electronic data interchange (EDI) requirements, that simplify the flow of products and information in the retail industry.

When a delivery has been loaded on a truck for shipping, a warehouse clerk prints out the B/L on a laser printer. Using one of multiple barcode scanners and electronic signature pads connected to the warehouse workstation, the driver scans the barcode and signs the paper B/L. IBM Content Manager OnDemand, residing on the workstation, stores the signature and also provides reporting, retrieval, searching and viewing capability, as well as enabling B/Ls to be printed or electronically faxed. IBM CommonStore for SAP

serves as middleware for integration with SAP, powering the nightly upload of electronic B/L documents to the backend SAP ERP system.

"Content Manager CommonStore for SAP was the only content management solution we found that integrates closely with SAP through the SAP Archive Link. And the ability to attach a B/L to an SAP Sales order makes it fast and easy to locate the required document," Salierno observes. In addition to a full suite of SAP solution components, Sharp has also implemented the mySAP Business Intelligence e-business solution.

DB2 Universal Database, Version 7.2 is the underlying database for Content Manager OnDemand. IBM Tivoli Storage Manager, typically used for backup and restore in the SAP R/3 environment, is extended by Content Manager CommonStore to perform archiving as well. Three IBM @server pSeries servers house Content Manager OnDemand, CommonStore for SAP and SAP respectively, with Tivoli Storage Manager residing on the same server as SAP. "We've been using DB2 on our iSeries server for years, so its highly reliable performance comes as no surprise to us. And IBM pSeries servers provide crucial advantages—such as self-healing autonomic computing features that make our IT infrastructure even more cost-effective."

Substantial improvement in efficiency and service

Salierno says the IBM B/L management system has brought powerful benefits to Sharp's business. "Because SAP links B/Ls to their associated purchase orders, invoices and other business documents, our IBM and SAP solution gives us full control for easy tracking of every transaction throughout its lifetime and beyond. And with fully indexed, searchable B/L information available overnight—rather than a month later—our business-critical fulfillment,

billing and collection processes are working better. Thanks to CommonStore and Content Manager OnDemand, we've experienced a substantial improvement in our customer service and in the overall efficiency of our business."

And this is just the beginning, Salierno adds. "We already have five of our warehouses using the system, and should have two more online within the next couple of months," he notes. "Because our competitors are still using microfiche solutions, we have a clear advantage in the level of service we provide our customers. In the near future, we plan to capitalize on powerful e-business opportunities that our integrated IBM and SAP platform provides. For example, giving our customers and sales reps direct, secure online access to business documents will improve the service experience and further boost our efficiency by reducing the load on our customer care call center."

Salierno concludes: "Sharp's commitment to uncompromising quality service has always been a cornerstone of its business success. By delivering a powerful combination of technology and business expertise, IBM helps us live up to that commitment."

For more information

Please contact your IBM marketing representative, IBM Business Partner or IBM Direct at: 1 800 IBM-CALL.

Visit our Web site at

ibm.com/software/data

For more information about Sharp Electronics Corporation and Image Architects, visit:

www.sharppusa.com

www.imagearch.com



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