IBM

e-business case studies

Ironside Technologies

A developer of business-to-business e-commerce solutions

Putting e-business to Work

Contents

The Solution

• An integrated B-to-B and
  B-to-C e-commerce solution

Business Benefits

• Time to market reduced from
  12 months to 6 weeks

• Lower development costs

• Expansion into new markets

• Synchronized product
  and market development
  strategies

Products

• Ironworks from Ironside

• IBM Net.Commerce

• IBM WebSphere™ Application
  Server, Advanced Edition

• IBM DB2® Universal
  Database™

• IBM Payment Server™

• IBM VisualAge® Team
  Connection

• IBM AS/400®

Overview

In the rapidly changing electronic commerce (e-commerce) marketplace, Ironside Technologies is a seasoned player. Founded in 1996, Ironside develops specialized sell-side business-to-business (B-to-B) e-commerce software solutions designed for manufacturers and distributors.

With industry analysts predicting unparalleled growth in business trade on the Internet—some estimates forecast B-to-B e-commerce will race to $1.3 trillion by 2003[1]—Ironside is in the right place, at the right time. In just three years, this Pleasanton, California-based company has assembled an impressive client roster of well-known companies, including Boelter Companies, D-M-E Company, J. L. Hammett Co., Minolta Business Systems, Paradyne and Redline, to name a few.

The company's team of 12-plus professionals works closely with technology partners—including IBM, Marcam, SSA and PriceWaterhouseCoopers—to create integrated vertical solutions for its niche markets. Marketed as Ironside Powered™ e-commerce systems, Ironside's solutions are based on a simple, but effective premise—businesses needn't reinvent their information technology (IT) systems to succeed in the Internet economy; rather, they can meld new technologies with existing systems to streamline and extend them to the Web.

Perceiving the synergy between its evolutionary approach to e-business and that of IBM, Ironside has successfully applied the IBM Application Framework for e-business to understand and satisfy the growing needs of its customers, bringing an integrated solution to market in a short period of time. Designed to help companies build successful e-businesses, the IBM Application Framework for e-business prescribes a methodology and standards-based technologies that can provide businesses a jump-start in the Web's multivendor, multiplatform environment.

[1] Steven Bell, *Resizing On-line Business Trade,* Forrester Research, November 1998.

Business drivers

An evolving marketplace

Traditionally, Ironside's B-to-B e-commerce solutions, such as Ironworks, have catered to its clients' high-value, high-volume corporate customers. So, when the company's clients sought a solution to serve the needs of customers who make small and infrequent purchases—usually individuals or small businesses—Ironside was quick to respond. It knew well that this new market segment would grow rapidly, but developing a suitable solution on its own might take as long as a year—an eternity in the Internet economy—during which time it may well lose precious sales opportunities to competitors.

With the growth of e-commerce, individual consumers and small businesses often comprise as much as 80 percent of the customer base for many of Ironside's clients. This segment contributes around 20 percent of total revenues, and its share is growing. Thus, these infrequent customers are an important source of incremental revenue. However, occasional customers may not always be certain of what they're looking for, and so, favor an appealing, interactive, catalog-based solution, with user-friendly search and navigation capabilities.

In contrast, business customers, or frequent users, prefer speed over aesthetics—realtime inventory information, an interface designed to place high-volume orders and fast transaction execution. By integrating Ironworks with IBM Net.Commerce, Ironside has created a comprehensive B-to-B and business-to-consumer (B-to-C) solution that meets the needs of both types of customers.

Says Ted Tritchew, Ironworks project manager, "Partnering with IBM to tailor our solution for a new emerging market made sense for two reasons. Its Application Framework for e-business consolidates leading-edge technology that we could leverage, reducing our time-to-market. And, we often found ourselves at the same sales calls, trying to solve two different problems. Together, we've been able to develop an integrated solution that addresses all of our clients' needs."

Responsible for strategic product development, Tritchew plays a key role in determining whether to build or outsource technology components, and also works with marketing and development teams to assure the highest quality product features.

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> —Ted Tritchew, Project Manager, Ironside Technologies

Development strategy

Ironworks—focusing on corporate customers

Designed for B-to-B trade, the express transaction facility of Ironworks gives high-volume buyers a fast and efficient system for placing orders—and provides them accurate, timely information. Ironworks can be easily integrated with the clients' host order management and enterprise resource planning (ERP) systems. Leveraging existing data and business processes, it provides buyers realtime ordering- and inventory-tracking capabilities through a browser interface, in an easy-to-use and secure environment.

However, to serve smaller customers who require a rich shopping experience, Ironside needed to offer a dynamic storefront, with a content-rich product catalog and online payment options. To deliver this new functionality, Ironside selected key technology components from the IBM Application Framework for e-business—IBM Net.Commerce and IBM WebSphere Application Server, Advanced Edition. Says Tritchew, "We've combined the powerful back-end B-to-B capabilities of Ironworks, the strength of Net.Commerce in creating interactive storefronts and the high transaction performance delivered by WebSphere Application Server, to deliver a complete solution for our clients."


Leveraging the IBM Application Framework for e-business, Ironside is developing solutions to meet the varying e-business needs of its clients.

Realizing that the new integrated solution would have a significant impact on its market position, Ironside was careful in its technology selection. Its criteria were:

• Flexibility. Ironside needed a solution that it could easily integrate with Ironworks, was easy to deploy and customizable.

• Secure payment options. In order to enable infrequent users to submit payments online, Ironside required a security-rich solution, supporting industry-standard Secure Sockets Layer (SSL) encryption and the SET Secure Electronic Transactions™ protocol.

• Graphical user interface and rich content. Because the integrated solution was aimed at individual consumers rather than large businesses, Ironside required technology that was capable of managing and delivering detailed product information, such as graphics, audio and video, as well as user-friendly features such as shopping carts.

• Open standards. Ironside's customers operate on a variety of platforms. So, support for open standards was a key consideration in Ironside's technology selection.

With Net.Commerce, the Ironside Powered solution delivers an attractive storefront, with advanced product search capabilities, dynamic HTML content and instant credit card verification. Ironside has seamlessly bundled Ironworks with Net.Commerce. Ironworks and Net.Commerce share the source product catalog that includes product photos and more detailed product descriptions, which are merged with standard product information. Occasional buyers can browse through the product catalog for more information, while regular buyers can directly check inventory, configure their assemble-to-order products online and check order status. When a customer elects to view product information through the INFO button in Ironworks, the Net.Commerce HTML products pages are displayed.
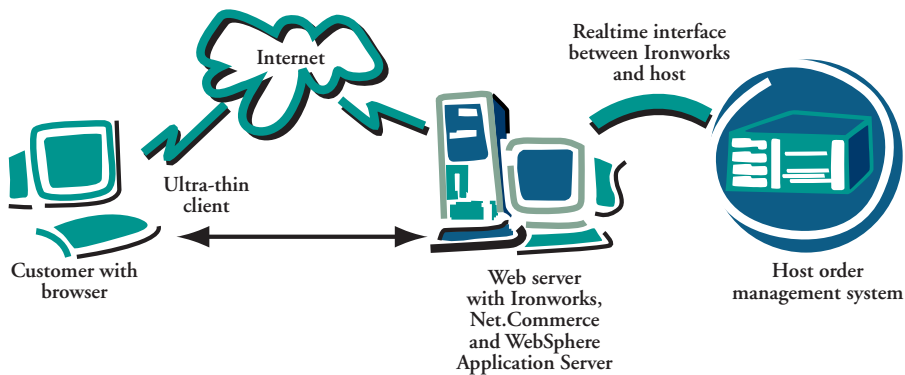
Basic system architecture of the integrated Ironworks/Net.Commerce business-to-business e-commerce solution.

A solution for every need

In addition to Net.Commerce, Ironside is deploying other components of the IBM Application Framework, including WebSphere Application Server, IBM DB2 Universal Database and IBM Payment Server for security-rich online payments. "There's a component in the Application Framework to address just about every e-commerce requirement you can think of," says Tritchew. "As long as we use the Application Framework, we can extend our solutions in step with our customers' needs."

Quick response is an important consideration for Ironside's customers, particularly the high-volume corporate buyers. With WebSphere Application Server, Ironside is pushing the boundaries of transaction performance. "WebSphere Application Server is highly scalable and further enhances the performance of our solution," says Tritchew. "It is the technology for the future."

The ability to integrate Ironside Powered solutions with third-party products is also high on Ironside's priority list. So, IBM's commitment to open, multivendor standards—embodied in the IBM Application Framework for e-business—fit right in with its product development strategy. As Tritchew says, "IBM products support multiple platforms, allowing us to offer a highly flexible solution. In addition, we can use tools like VisualAge for Java™ to customize and fine-tune our solutions and integrate them with customers' existing or new applications."

This multiplatform capability also allowed Ironside to port its application from Microsoft® Windows NT® to IBM AS/400, after IBM announced the Java Virtual Machine for this platform. Says Doug Maceallum, vice president, Ironside, "We needed a high-availability, low-maintenance, robust hardware platform for our solutions. The AS/400 is the best there is out there." In the future, if customer needs require porting the Ironworks application to other platforms, the Application Framework will allow Ironside to do so quickly. This will enable Ironside to offer its customers a wide range of platforms from which to choose, including IBM AIX®, Linux or other flavors of UNIX®, IBM OS/2® and IBM OS/390®.

"The Application Framework makes it easy to use the best available tool for each task," Tritchew says. For example, Ironside was able to convert from Microsoft's Visual Source Safe to IBM's VisualAge Team Connection with little difficulty. "VisualAge Team Connection gives us superior configuration management capabilities, as opposed to simply source code management. We can identify and manage defects in code, build new releases and much more," Tritchew notes. "It's actually a more powerful tool than we need right now, but will prove very useful as we expand our range of solutions."

Return on Investment

Overall ROI Benefits	
Function	**Benefit**
Product development	Faster time-to-market Lower development cost Ease of product integration Enhanced ability to expand product range
Marketing	Increased opportunities for market expansion Greater market penetration with IBM brand leverage
Customer service	Ability to respond to customers' evolving IT needs quickly and effectively

Shorter development cycle helps capture new market opportunities

By leveraging the methodology and tools prescribed by the IBM Application Framework for e-business, Ironside was able to reduce development costs and accelerate the application development process. A development cycle that would ordinarily have taken between 12 to 24 months, was completed in a mere six weeks—almost 100 times faster. This resulted in costs savings of a minimum of $200,000 in development resources. In addition, Ironside was able to avoid diverting development resources from its core programs.

The faster time-to-market in turn enabled Ironside to capitalize on new market opportunities. According to Maceallum, about 75 percent of Ironside's existing and prospective clients look for a complete solution—one that addresses both B-to-B and B-to-C needs. "Net.Commerce complements our product to a T. It enables Ironside to round off our e-commerce offering to include best-of-class functionality for both business-to-business and business-to-consumer applications. The combination is highly attractive for customers. This has helped us capture market opportunities that we would most certainly have had to forgo had we not created an integrated solution."

Today, Ironside solutions are providing proven business value to more than 100 clients. Maceallum explains that for a manufacturer or distributor, the cost of taking an order over the phone can range between $5 to $35 per call. With order volume varying between 400 to 3,000 orders a day, these costs add up to a substantial portion of operating expenses. In comparison, orders placed over the Internet cost less than one dollar to process, resulting in savings that directly impact the corporate bottom line. For example, a company fielding an average 1,500 orders a day at a historical cost of $20 per order can achieve cost savings exceeding $1 million annually.

Such savings in order processing accumulate not only from regular buyers, but also from infrequent buyers who comprise as much as 80 percent of the customer base. With the integrated Ironworks and Net.Commerce solution, Ironside is enabling its clients to realize these significant savings across the board.

Says Maceallum, "Net.Commerce helps us address a growing customer base that will not settle for individual pieces of a solution. These businesses need a solution that will allow them to offer electronic commerce to all of their customers, not just some of them," says Maceallum.

In addition, with its comprehensive e-commerce solution, Ironside is able to help businesses provide their customers a new level of 24-hours-a-day, 7-days-a-week customer service. For example, explains Maceallum, "electronic commerce can help reduce costs, such as those associated with product returns and back orders, by providing customer self-service features."

Ironside is helping manufacturers and distributors reduce order-processing costs significantly, with its integrated e-commerce solution.

IBM and Ironside—symbiotic relationship

As experienced players in the e-business market, both Ironside and IBM appreciate the value of partnerships. "We have a strong working relationship with IBM developers in Toronto," says Tritchew. "After the initial consulting and architecture design, we would just walk over to the IBM Global Services office—our development facilities in Toronto are a stone's throw away—and talk to the Net.Commerce architects to understand how it worked and how best we could integrate it with Ironworks. They, too, appreciated our inputs on how to continue improving the product."

Partnering with IBM brings other perks as well. Says Maceallum, "IBM is investing in marketing its e-business application framework, and we're able to leverage its market presence and technology. Our sales team helps extend IBM solutions to a wider market, and the converse is also true."

Because the IBM Application Framework for e-business provides a consistent and wide range of products for Web application development, Ironside now has the flexibility to evolve existing products to address new customer needs, as well as develop new products that enhance its portfolio. Says Maceallum, "IBM's Application Framework for e-business helps software companies like ours understand where IBM is headed and synchronize our future product and market strategy with theirs to offer mutually complementary solutions."

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> —Doug Maceallum, Vice President, Ironside Technologies

By synchronizing its product development with the IBM Application Framework for e-business, Ironside is enhancing its portfolio and market presence.

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