



NHL and IBM team up to score new e-business opportunities

Hockey may not be known for its display of grace and style on the ice. But, the National Hockey League (NHL) was determined to cut a striking figure on the Internet. Committed to promote the growth and enhancement of hockey worldwide, the NHL looked to the Web as a vehicle to deliver a fresh new experience to its technology-savvy fans.

“With the electronic commerce and Web content delivery capabilities we have developed with IBM, the NHL has moved to the information forefront of professional sports.”

—Don Pettinato, Chief Financial Officer, NHL ICE

Realizing that it would take powerful hardware, software, and Web design skills to meet its fans’ expectations, the NHL chose IBM as its technology partner in a joint venture called NHL Interactive Cyber Enterprises (NHL ICE). One result of these efforts—www.nhl.com—is truly a Web site to behold. Jazzy new interactive features, scores and stats, game broadcasts, and an unparalleled multimedia NHL archive draw more than 70,000 unique visitors to the site daily.

This size audience provides a healthy incentive to Web advertisers, from whom NHL ICE expects to achieve 66% growth rate in online, year-to-year advertising revenues. The NHL is also cashing in on its online store, *Hot Off the Ice*, which more than doubled last year’s annual sales figure. And, that figure is expected to grow considerably as the store begins to offer new features such as team locker rooms, larger images, and customer registration. The NHL expects this Net.Commerce-based store to double its merchandise revenue within two years.

Suffice it to say that, in its two years of existence, NHL ICE has met its objectives, as NHL ICE chief financial officer Don Pettinato asserts, “With the electronic commerce and Web content delivery capabilities we have developed with IBM, the NHL has moved to the information forefront of professional sports.”

Application	Real-time scoring, multimedia archives, and an online store
Business Benefits	66% growth rate expected in year-to-year advertising revenue, 100% in merchandise revenue within 2 years; 70,000 daily visitors
Software	IBM® Net.Commerce IBM DB2® Universal Database™ IBM Digital Library IBM Net.Data™
Hardware	IBM RS/6000™ IBM AS/400® IBM PC Server 330
Services	IBM Interactive Media IBM Global Services IBM Global Network™



Show your team spirit: Stock up on NHL merchandise anytime, anywhere.

IBM brings it all together

Driving the Web site's hyperactive pages is a powerful e-business machine comprised of IBM hardware and software. The main NHL Web server is an RS/6000 Model 390, and the ads are stored on an IBM PC Server 330. The *Hot Off the Ice* online storefront is delivered by IBM Net.Commerce running on an RS/6000 43P server—a powerful e-business server that will take care of NHL's future needs as the content and business transacted on the storefront grows. A second processor can be added to the RS/6000 43P server, allowing seamless scaling of transaction processing power.

According to Pettinato, one of the most important assets IBM brought to the table was the ability to integrate all of the different technologies into a seamless working solution. "IBM is on the cutting edge of many technologies," he says, "so we have a single source for hardware, graphic design, database scripting, and e-commerce solutions. We use IBM Global Network's infrastructure and server farms, IBM Interactive Media's multimedia studio, and IBM Global Services to provide the technological backbone and the expertise to service that backbone, as needed."

Capitalizing on merchandising revenues

Of the 70,000 fans that visit the NHL site each day, many check out the goods at *Hot Off the Ice*. The store offers more than 1,000 different products for all 26 league teams. This makes it possible for the NHL to cater to its displaced fan base—those who remain loyal to a home team despite a move to another locale. According to Pettinato, that strategy has paid off handsomely: "When the Detroit Redwings won the Stanley Cup, merchandise such as championship hats and T-shirts was immediately available on the e-commerce site. We didn't sell the majority of our orders in the Detroit market, but via the online store from Redwings fans throughout the country who were unable to buy the items at their local retail store."

The maintenance and presentation of the store's extensive online inventory is eased by two products included with Net.Commerce—IBM DB2 Universal Database and IBM Net.Data. DB2 tables hold product names, descriptions, prices, and options as well as the corresponding photo file name for each

product. Using templates designed by the IBM Interactive Media group, Net.Data dynamically generates HTML pages by extracting the requested data from the database. That eliminates the need to store thousands of unique pages on the server. To ensure that orders, credit card numbers, and addresses are transmitted securely to NHL's fulfillment house, the store uses the 128-bit Secure Sockets Layer (SSL) encryption capability available in Net.Commerce.

Hat tricks and history

For die-hard hockey fans, the NHL Web site is the only place to get official NHL scores and stats. To rush those numbers to the site, each arena is equipped with its own IBM AS/400 server. At the end of a game, scores from rinkside IBM Thinkpads® are uploaded to the AS/400 server. From there, they are loaded to a DB2 database on an RS/6000 server, which delivers them to the Web site. Once the system is ramped up to full production, scores and stats will be delivered to the Web site after each period—a process that will take just 90 seconds.

To provide its fans information on the greatest as well as the latest NHL plays, the Web site provides users free access to an archive of photos, video clips, and live streaming audio cybercasts of past games. IBM Digital Library, running on an RS/6000 SP server, is the underlying software enabling the storage, access, and management of these multimedia files. In addition, IBM Data Mining technology allows fans to query the archives on statistics and view video footage. In the future, this technology will also take information captured in the NHL/Real Time Scoring System for Hockey and apply mathematical algorithms to it to uncover previously undetected behavior patterns and cycles among players. This will assist coaches and players in developing the most effective strategies and play combinations.

While expounding on NHL ICE's impressive array of Web capabilities, Pettinato is quick to reiterate the team's real raison d'être: "The NHL ICE alliance is not just about cutting-edge technology; it's about business opportunities," he says. "The fact that IBM has helped us centralize all of our digital and interactive content assets into one entity has enabled the NHL to offer a variety of products and services. This has greatly enhanced the NHL brand and helped promote our sport."

For more information please contact your IBM Marketing Representative or IBM Business Partner.

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