IBM

Rediff.com sets the standard for e-commerce in India with IBM.

On August 15, 1998, one Indian Internet company created a milestone. Rediff.com launched the first Web store to accept online payments using rupee-based credit cards issued by Indian financial institutions. Electronic commerce had finally arrived in India. Two years earlier, when the Internet was still in its infancy in the country, Rediff.com was among the first to offer online news, information and entertainment services. Since then, the company has grown at an extraordinary pace.

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—Ajit Balakrishnan, Chief Executive Officer, Rediff.com

Every month 1.2 million visitors beat a path to *www.rediff.com*, which is powered by a range of IBM e-business technologies, including IBM Net.Commerce, IBM DB2 Universal Database and IBM HTTP Server. Interestingly, more than 65 percent of the 70 million monthly hits to the Web site are from Internet users in the United States. "For Indians and India enthusiasts worldwide, Rediff.com showcases the best India has to offer in literature, music, entertainment and tourism," claims Chief Executive Officer Ajit Balakrishnan.

There is substance in that claim. In the first six months, revenue from online trade climbed to 40 percent of total revenue, with the rest generated through banner ads, even though anxiety about Internet security has contained the look-to-buy ratio between five to ten percent. "Over the next two years, we expect

Application	Online store; reservations, news and information services
Business Benefits	40% revenue from online sales, expected to double in two years; 50% increase in sales; 100% ROI in two years; realtime customer service; Web traffic to double to three million
Software	IBM® Net.Commerce IBM DB2® Universal Database™ on Windows NT® IBM Net.Data® IBM HTTP Server
Hardware	IBM Netfinity®

IBM® **(e)**™
an e-business solution ▶

Rediff.com has Indians worldwide swaying to its music.

Rediff.com's Web store offers live realtime customer service to put first-time users at ease.

online trade to account for 80 percent of our revenues," says a confident Balakrishnan. A confidence well-founded, he says, because of the great care the company has taken in ensuring online security. "We could not risk any security problems," says Balakrishnan. "A security breach in our system could have set back e-commerce in this country a few years—and that is no exaggeration. It's the reason we selected the IBM e-business solution." IBM HTTP Server supports industry-standard Secure Sockets Layer (SSL) encryption, helping maintain the security of information transmitted over the Web. Customers are obviously convinced. Of the approximately two million credit card holders in India, 30,000 are already customers of Rediff.com, an impressive adoption rate by Indian standards.

The Web store isn't designed just for the Internet savvy user, but also first-time "mom and pop users whose kids probably know more about computers than they do," says Balakrishnan. For example, the store offers live customer service—just click on the icon and a chat window opens, allowing customers to ask questions and receive instant responses from service representatives. The result is quality customer service at a low cost. Balakrishnan explains, "In a country where the concept of online ordering is new, this makes a big difference. We have personnel responding to customer queries around the clock. This is much cheaper than setting up a call center help line." Indeed, the impact of this personalized service on the bottom line was evident immediately. "Online orders grew almost 50 percent as soon as we launched live customer service," says Balakrishnan.

The one-stop online shop

So, what are the crowds flocking to at Rediff.com? The most frequented destination is the music store, which carries 45,000 music titles from nearly 100 categories of Indian music—classical, pop, folk songs, devotional songs, music for festivals and more, in 14 Indian languages—as well as 27 categories of international music. Shoppers can listen to 50-second snippets of a music score before they place an order. The Rediff.com book shop catalogs 125,000 book titles, and the gift shop displays more than five goodies visitors can buy and have delivered to friends and relatives around the world. Orders are shipped within seven days worldwide by Federal Express.

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There's something for everyone at this Web store. Tourists can make hotel reservations in 60 Indian cities using Rediff.com's online reservation services. Students visiting the site's education service can get valuable information about schools and programs. A movie ticketing service allows visitors to buy tickets and even select seats for theaters in Mumbai. Just the other day, a chat session with Indian cricket star, Sachin Tendulkar, attracted 8,000 participants, mainly from California, Balakrishnan enthuses. "We arranged for him to autograph copies of a new book, *The Making of a Cricketer*, and while he chatted online, we sold 700 copies in one night."

Delivering all these features and services would require considerable time and development effort, right? Not really. "Net.Commerce is a flexible tool. Every store is different in the way it treats its customers, and Net.Commerce accommodates that very well," says Balakrishnan. "The Net.Data macros made it possible for us to customize the Web site relatively easily and quickly." Net.Commerce delivers everything needed to run the store, including a shopping cart, online catalog and special offers.

Technology that grows with the business

This is only the beginning. Recently, the Internet service provider (ISP) business in India was opened to private business. With more private participation, 1.5 million people are expected to come online by March 2000. "If there are one million Indians online by the end of 1999, our aim is to attract at least 30 to 40 percent of them to make purchases worth at least 50 rupees from our online store, at least once," says Balakrishnan. That would add up to more than U.S.$400,000! Ambitious? Maybe, "but not improbable," quips Balakrishnan.

With such expectations of growth, selecting DB2 Universal Database as the data repository for the Web site was an easy choice, according to Balakrishnan. "We expect traffic on our Web site to more than double to three million visitors a month by the end of the year, yielding a 100 percent growth in revenue from online sales," he says. "The scalability that DB2 Universal Database ensures is very important." The gigabyte database stores product catalogs, customer profiles, inventory and order status.

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A movie-ticketing service allows Rediff.com visitors to select seats and buy movie tickets online.

Currently, the Web site resides on an IBM Netfinity server. Eventually, Balakrishnan anticipates that they will need to migrate to an RS/6000® server or any other UNIX®-based platform. "Because DB2 and Net.Commerce support multiple platforms, we'll be able to protect our development effort," says Balakrishnan. Initially, Rediff.com had considered Microsoft® Site Server commerce software. "But," says Balakrishnan, "when it came to upward scalability, DB2 and Net.Commerce made the most appealing long-term solution."

Promoting business relationships

Behind the scenes, it took considerable business acumen to convince other businesses—publishers, music companies, hotels and retailers—to participate in Rediff.com's Internet venture. "Though online sales represent a small fraction of their total sales, we convinced our partners that being the first to market would be key in the long run," explains Balakrishnan. On the Internet at least, familiarity breeds trust.

Rediff.com's high-tech operation is beginning to influence its partners as well. At present, Rediff.com manually updates its online store inventory, keying in information received in hardcopy from suppliers into its DB2 database. "In time, we hope to install DB2 at the suppliers' sites so that we can use its replication features to automatically synchronize inventory," Balakrishnan notes.

The sky is the limit

Are the returns from this venture commensurate with the investment? "Very much so," says Balakrishnan. "We'll recover what we've invested so far over the next two years." And there's more to come. In the next phase of its business development, Rediff.com will open a fulfillment center in New Jersey, USA. "This will further reduce overseas shipment costs," Balakrishnan explains.

In April this year, San Jose, California will be the first of nine U.S. cities to have an events calendar aimed at the local Indian community. This service will subsequently be extended to Brussels, London, Singapore and Tokyo. Simultaneously, product prices will be listed in local currencies as well. "With Net.Commerce, we have the development tools to extend our Web services in innovative ways," says Balakrishnan.

The success of Rediff.com's online venture is generating interest in the Indian business community. Recently, Balakrishnan delivered a presentation at the National Association of Software Companies (NASCOM). "Everyone wants to know how we did it. I tell them that the technology was one part of it. The other was the commitment of the IBM experts here. We were among the first five installations of IBM e-business technology in Asia, and truly, the IBM team was even more determined than we were that everything work perfectly."