Case Study

Best Internet's Upgrade to PortMaster 3 Delivers "Next Generation" Connectivity

Lucent Technologies
Bell Labs Innovations

Background

Best Internet is one of the fastest-growing web hosting, connectivity, and co-location services companies on the West Coast, with 14 points of presence (POPs) covering the entire San Francisco Bay Area. This company is unique among Internet Services Providers (ISPs) because it virtually gives away its dial-up Internet connection service so that its customers, most of whom are web site developers, can have fast and uninterrupted access to their own customers' web sites.

"We have a very technical customer base," explains Jim Zarley, President and CEO of Best Internet. "Eighty percent of the people who subscribe to our dial-access also have Web sites on our servers. These customers don't use dial-up just to get to the Internet but to upload files to our servers. Best Internet's plans for the future," adds Zarley, "include extending our Web access and hosting business beyond Northern California both throughout North America and in Europe and the Pacific Rim."

To support its customers, Best Internet uses a robust network of Internet access servers, with redundant T-3 connectivity direct to major Internet backbone providers to supply uninterrupted, high-speed connectivity between its customer base, Web server hosts, and the Internet.

The Challenge

Because of its technologically savvy customer base, Best Internet can't afford to make mistakes. Since the company first began operations nearly three years ago, Best has relied on Livingston's PortMaster® family of remote access servers to provide the maximum reliability and ease of management that are critical to the success of the company's business. "We had been using PortMaster 2 technology that had served us well while we were providing 28.8K dial-up," explains Bob Tomasi, Chief Operating Officer for Best Internet. "But it was time to upgrade to a more robust access layer because the majority of our subscribers are demanding higher speed as well as quality access to our Web hosting accommodation."

Until now, Best's network included analog modems connected to edge devices. To ensure optimum performance and throughput for its 2,000 plus business customers and 20,000 dial-up users, Best needed a product that would let them transition their customers from analog to K56flex™ to ISDN. That's why Best management sought an all-digital solution.

The Solution

Best's technical team was already familiar with the reliability and easy management features of Livingston's PortMaster hardware products and ComOS™ operating system. In the fall of 1996, therefore, they were more than willing to beta test the PortMaster 3 Integrated Access Server.

"Next Generation" Hardware Design

"The first thing we noticed about the PortMaster 3 when we opened it up," observes Rich White, Best's Chief Technology Officer, "was the quality of its engineering—the layout of the boards and the modems. We hadn't even seen how it worked, but we were amazed at how well-designed it was. We plugged in our first PortMaster 3 in September of 1996, and it has proved to be virtually bullet proof."
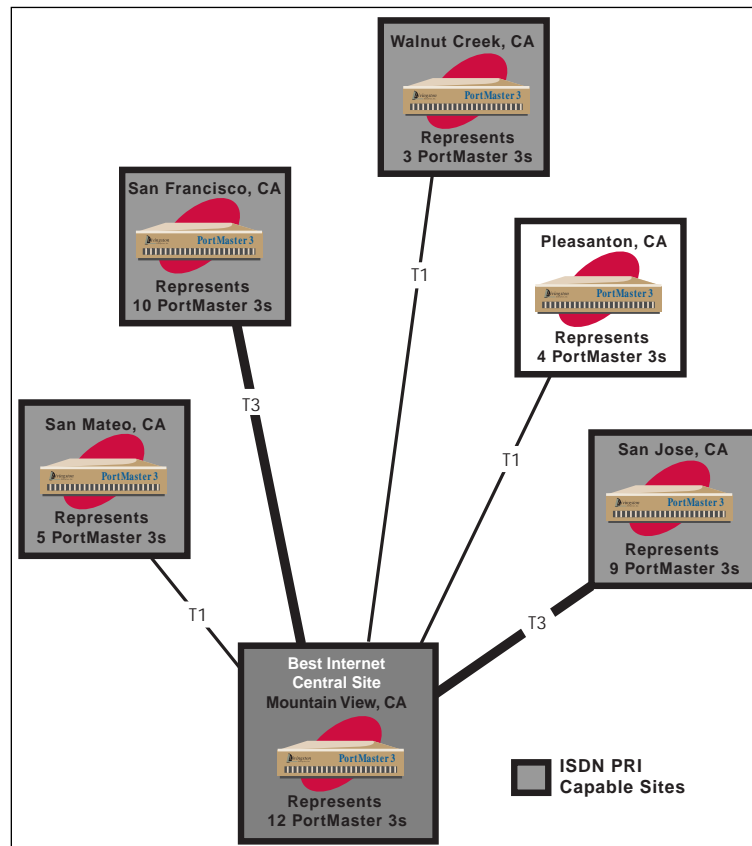
Among the other design features of the PortMaster 3 that caught the attention of White and his fellow engineers were its integrated functionality and compact chassis design that minimizes cabling and space requirements. When they noticed the as yet unused slots inside the chassis, Best's engineers immediately realized the PortMaster 3 also allows for significant future scalability.

Reliable, Flexible, and Easy-to-Administer Operating System

"The PortMaster 3 was heavily evaluated over a period of eight months by a team of some of the best network and systems engineers in the business," White reports. "No problems occurred during the testing, and the PortMaster 3 consistently outperformed all other devices in its class." Best engineers also liked the fact that, despite the enhanced features of the PortMaster 3 over the PortMaster 2, Livingston's ComOS operating system code remained stable and easy to administer.

Other PortMaster 3 performance features that are of critical importance to Best Internet include:

• Modem pool architecture enabling fault-tolerant resource management

• Capacity to deliver ISDN on a single line (through Livingston's Multichassis PPP)

• Low heat generation delivering unsurpassed performance reliability

• Livingston's ChoiceNet™ centralized filter management capability

• OSPF routing that is fully compliant with RFC-1583 and RFC-1587 (NSSA)

Best Internet's PortMaster 3 Points of Presence

The Results

As the Figure shows, Best Internet upgraded its entire Bay Area network by replacing PortMaster 2 technology with 60 of Livingston's next-generation PortMaster 3s.

With the new PortMaster 3s in place, Best will be in a position to support robust ISDN service for all of its key customers. The company expects to roll-out dual PRI-line service at five new locations by early October of this year.

Best Internet is clearly pleased with the results of its upgrade to the PortMaster 3. In the words of Jim Zarley, "Our business plan has always been to provide the highest quality Internet service. In addition, with the emergence of 56K and ISDN, we want to provide our customers with the latest technological advances that will enhance their Internet experience. This, coupled with the ability to do remote diagnostics and maintenance, is what drove our decision to install the Livingston PortMaster 3 technology."

"I sleep better at night," White concludes, "knowing that Best Internet has PortMaster 3s on the edge. For fast, reliable access, the Livingston Portmaster 3 is the best price/performance product on the market."