

MANAGING GROWTH IN ENTERPRISES: VOICE OVER INTERNET PROTOCOL

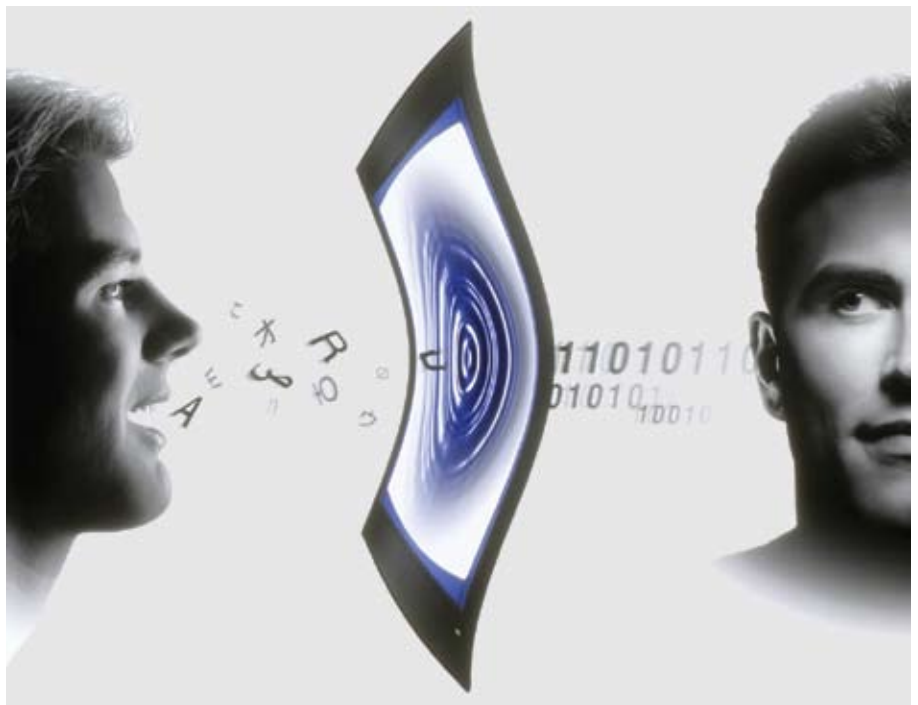
Reinventing the Telephone

Businesses are combining their data and voice networks. The result: streamlined communications, improved customer service and innovative enterprise phone services.

VOICE OVER INTERNET PROTOCOL (VoIP) telephone service is the type of performance-enhancing business technology that comes along only once every decade or so, according to Andy Abramson, a communications industry analyst. “We’ve hardly even begun to tap VoIP’s potential to revolutionize communications,” he says. “In many ways, it’s the telephone reinvented.”

In fact, VoIP will probably join the elite roster of true breakthroughs, along with personal computers, electronic mail and, more recently, wireless communications. Even though the technology—which runs digitized voice signals over data networks—has been around since 1995, businesses are now capitalizing on its widespread applications. According to technology research firm In-Stat (“Business VoIP: Multiple Flavors Drive Growth,” March 2007), about one in five U.S. companies has embraced some form of Internet telephony. But by 2011, In-Stat predicts, that number will more than triple.

Many enterprises enlist VoIP to help lower their phone bills. Running voice and data over one network can be cost effective. But there are even broader top-line benefits. A business can con-



Voice transmitted over data networks is transforming business communications.

nect remote and mobile workers and customers into its corporate network or integrate voice communications into Web and business applications. Even more impressive, employees can combine different media—video and voice clips, for example—in a single email, a capability known as unified messaging.

When Email Talks

A VoIP phone essentially furnishes a global communications workstation with features that can extend far beyond ordinary



By improving the sound quality of conference calls, VoIP adds real value to meetings.

two-way voice communication. By harnessing computer and Internet technologies, VoIP can expand the capabilities of conventional telephone networks. As a result, enterprises can employ a richer, cost-competitive array of communications functions.

In short, it's a whole new kind of telephone. "Many people have a preconception of what a phone can do," says Patrick Monaghan, a senior analyst at Yankee Group, a technology research firm. "VoIP changes the rules and allows businesses to look at communications in a totally different way."

Beyond unified messaging, advanced VoIP services can include video telephones and videoconferencing. Sanjeev Aggarwal, vice president of IT infrastructure solutions at AMI-Partners, a market-research and consulting firm, notes that VoIP technology offers capabilities that are either unavailable or impractical on traditional phones. Using a VoIP network, a worker can reroute calls to multiple endpoints and forward voice mail as email attachments. Moreover, a versatile VoIP feature called "presence" can allow a business to find and contact workers anywhere on any communications device.

In addition, VoIP transfers data in packets. Unlike analog signals produced by conventional phone systems, these data packets take a different route when phone lines are congested or down. Given such capability, several business continuity plans increasingly encompass VoIP. From any location that has Internet access, employees can redirect calls from the office to their homes, temporary offices or even cell phones. Internet telephony can also come in handy when workers are displaced by office remodeling or must relocate from one site to another.

Click Clique

Packet transfer has another advantage. The technology can make it easier to integrate VoIP phone systems into an array of customer-relationship-management (CRM) and e-commerce applications, says Frank Stinson, principal analyst at IntelliCom Analytics, a market intelligence firm.

VoIP call centers, for example, identify incoming phone calls from past customers and, using pop-up screens, instantly post relevant data from an enterprise's CRM system. The pop-up windows convey detailed customer profiles, including past purchases, product and service preferences, and payment history.

VoIP-driven call-center technology, notes Stinson, uses click-to-call service that connects Website visitors via a simple, clickable icon. And VoIP can greatly ease the integration of voice and Web applications.

Further, VoIP's ability to quickly interconnect employees scattered around the world enables enterprises to build "virtual call centers,"

HOLD THE PHONE

Sales of traditional telephones are falling, but IP phone sales are picking up.

- 12.8 million business IP phones were sold in 2007.
- 37 million business IP phones are estimated to be sold in 2011.

SOURCE: IN-STAT, "IP PHONES WORLDWIDE: CORDED, CORDLESS, AND WLAN," OCTOBER 2007

teams of employees based at local offices or even homes, Stinson says. During heavy traffic periods, calls can be routed to an available agent in any location.

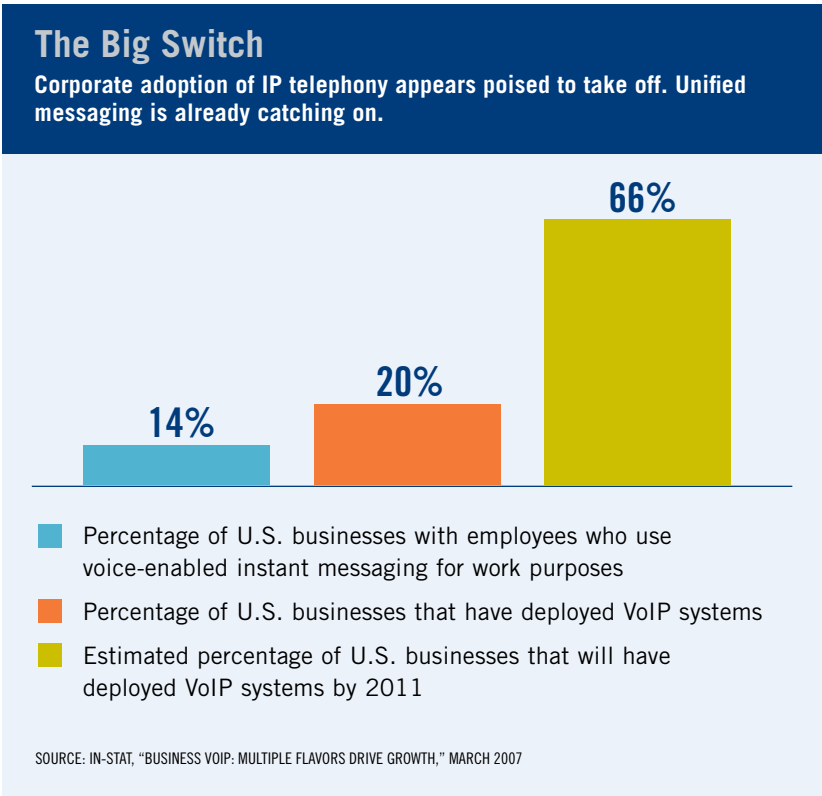
TCO, TLC

Despite compelling advantages, some managers have put off switching to VoIP, expressing concerns about voice quality. But advances in compression and routing technology have dramatically improved Internet telephony. Besides, business calls are typically sent over internal corporate networks and T-1 leased lines—not public phone lines. Thus, voice packets rarely encounter delays. “With the right equipment and sufficient bandwidth,” says Abramson, “you won’t know the difference between a regular phone and an IP phone.”

Managers considering VoIP can start from scratch or add VoIP to an existing network infrastructure. A company can use VoIP on a data network that is already in place as long as the network’s hardware has enough capacity and the needed features. The approach can cut deployment costs and time. What’s more, it means that companies can continue to utilize existing network assets.

“VoIP changes the rules and allows businesses to look at communications in a totally different way.”

Deploying a new IP-based, data and voice network helps eliminate integration and compatibility problems. Still, rolling out a premise-based VoIP network will require a greater up-front capital investment—reportedly averaging around \$800 per user, according to Nemertes Research (“Building the Successful Virtual Workplace,” Spring 2007).



In time, however, a new VoIP network will pay for itself in both reduced maintenance charges and improved traffic-management capabilities. To budget for a VoIP deployment, Aggarwal suggests that enterprises conduct a total cost of ownership (TCO) analysis that projects the funds needed for IP-compatible phones, PBXs, cabling, network devices, software and various other items. Such an evaluation should also address the hit to earnings from sticking with a more traditional phone service. Managers must determine if rivals have switched to VoIP communications—and if so, how that affects the competitive landscape. A company with more consumer-friendly call-center offerings is likely to end up with a higher percentage of retained customers.

After weighing Internet telephony’s costs and benefits, some managers have already decided that VoIP is vital to competing in an increasingly communications-centric business world. “Make a decision based on what your company requires,” says Abramson. “It’s about quality, not just price.”