Phone of the future

Net-based phone systems can save you big money today. They'll do so much more tomorrow



SOME PEOPLE STILL CLING to their rotary phones. They can make calls, but they miss out on the benefits of touch-tone phones. Soon, we'll be saying that some businesses are clinging to their non-VoIP telephone systems. Don't be one of them.

What is VoIP? It's "Voice over Internet Protocol" – technology that routes your voice calls through your company's data network and high-speed Internet backbones instead of through traditional telephone wires and voice circuits. Today, VoIP can cut your long-distance costs and enable you to use one network for voice and data instead of two. Tomorrow, it promises to run a wide range of services such as high-quality videoconferencing and wireless telephony, connecting you via local area network to customers, suppliers and partners around the world.

The entire global telecommunications industry is going in this direction. Network providers such as 3Com and Cisco have bet big on VoIP, while traditional telecommunication vendors such as Lucent and Nortel have made it critical to their future success. Nortel's new corporate strategy – "One network: A world of choice" – is founded on providing IP-based phone systems, and Cisco has already shipped more than one million VoIP telephones. More than 40,000 volunteers and 10,000 journalists at the 2002 World Cup of soccer exchanged faxes, e-mail and voice calls from 20 stadiums in two countries, all on a single VoIP-based network.

Already, consumers and small, one-office companies can easily reap some benefits of VoIP. Programs such as OnlineTel's 10-10-580 service offer flat-fee or 5¢-per-minute long-distance calling over VoIP systems. But it's early days: availability is limited to major North American cities.

If your business has several branches linked with a high-speed Ethernet network (based on T1 lines or better), the benefits really kick in. Installing your own VoIP network can save you money despite the hefty up-front capital costs. Nortel's Business Communication Manager starts at about $30,000 for a VoIP PBX system that will support up to 90 extensions; handsets go for about $200. (PBX is "private branch exchange" – the box that runs your internal telephone network and connects it to the outside world.) With two locations and 50 staff, for example, you are looking at a capital investment of about $70,000; if your monthly long-distance bill for interbranch calls is $4,000, the free long-distance calls routed over your network will pay for the system within two years. You'll also be able to reap the benefits of low-cost, high-quality videoconferencing and wireless telephony, but only in the offices connected by your network. You need a high-quality network to run VoIP, since anything less will produce marginal quality. That's one more reason to install a serious Internet infrastructure for your business.

You can't yet make high-quality VoIP calls to people outside your network through your VoIP set-up. You can place a call over the public Internet – but it's not something I recommend for business. Such calls are of poor quality, since the digital "packets" carrying voice calls, competing with the packets carrying data, are often lost or delayed. Dedicated VoIP networks will give priority to voice. While the major telcos are quietly upgrading their infrastructures to incorporate VoIP, the full benefits of VoIP won't be available to you until this work is completed.

The next time you need a new or expanded phone system, buy a VoIP PBX that supports traditional telecom connections. You'll be using standard technology for long-distance calls, but with some VoIP infrastructure in place you'll be prepared to upgrade to route your calls over VoIP at significant cost savings when the telcos' VoIP services come onstream. Then you'll be funnelling all your data and voice traffic over one seamless network, enabling you to videoconference with VoIP-equipped partners and even record phone calls onto your hard disk for future reference.

In a few years, of course, you won't even be able to buy non-VoIP equipment. You can always hang on to your old phones and switches, but you'll be using a rotary phone in a push-button world.

Jim Carroll, FCA, is a speaker and author of 32 books, including *Get a (Digital) Life: An Internet Reality Check.* You can find him at www.jimcarroll.com or e-mail him at jcarroll@jimcarroll.com.

VoIP surge

Many business customers see VoIP as an add-on to their telephone systems rather than as a complete replacement. This will change in the next 12 months, according to California-based tech analyst Radicati Group Inc. And Radicati forecasts that the total VoIP market will more than double by 2006 as businesses flock to take advantage of lower network-management costs, easy connection of branches and home offices, and fast access for mobile workers.