

Web Talkis Cheap



Voice-over-Internet-Protocol can be a great way to cut phone costs. But not without careful planning and realistic expectations about payback.

WRITTEN BY LAUREN GIBBONS PAUL | ILLUSTRATION BY MIRKO ILIC

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LAN PETERSON, CTO of Amerindo Investment Advisors Inc., was expecting to save money when he switched from a conventional phone system to Voice-over Internet Protocol (VoIP) in February last year. He had heard all the chatter about how VoIP technology could eliminate thousands of dollars in long-distance toll charges simply by routing calls over a standard Internet connection. Moreover, the lease on the new VoIP system was a good \$200 per month less than what the 40-person investment firm paid monthly for its old telephone system. The kicker came when



Thriving market **The market for VoIP technology providers will grow from \$2.2 billion in 2002 to over \$4.9 billion in 2006.**

SOURCE: Research and Markets

Amerindo got up and running with some of the VoIP extras, including audio conferencing. Then, Peterson was tickled to discover that the savings associated with VoIP were far greater than he had ever imagined.

By connecting the 20-person New York headquarters with the 12-person San Francisco office on an Avaya Communications Inc. IP Office system, Amerindo now has three-digit dialing between offices as well as to the eight telecommuters working in other cities. There is no separate charge for these calls since they are routed through the company's IP network rather than through AT&T. Adding new phone users or moving them from one office location to another is now a snap, since all changes are done through a simple interface in the software, as opposed to having to patch and rewire, which was necessary under the old system. Even better, Amerindo now saves a whopping \$4,000 per month, or nearly \$50,000 per year, on teleconferencing charges since the Avaya system has a telecon voice bridge built in. "The cost savings add up really quick," says Peterson. And by letting Amerindo service its customers better, the system helps Amerindo compete with the bigger players in its industry.

Hearing Amerindo's experience, it's tempting to tell your phone company to shove it in favor of VoIP. Well, not so fast. The fact is, most companies won't see the same kind of dramatic cost-savings benefits. That's because the decision to move to VoIP is more complicated than you might think. VoIP can be a good fit for your small- to medium-sized business (SMB) depending on a host of factors, including what industry segment you're in, whether your company has multiple sites, whether you have a dedicated, in-house person to oversee new technology, and whether your old phone system is still up to snuff. In addition, the cost of installing a new VoIP system can run well into the five figures, depending on the existing infrastructure, the number of extensions required, and other variables. These behind-the-scenes costs can sometimes outweigh any potential savings, at least in the short term. And since SMB VoIP solutions are still evolving, quality of service is still another outstanding issue.

Getting Payback

Calculating ROI for your VoIP project is tough because it depends on an infinite array of variables, and each business's circumstances are unique. Start by asking and answering these questions:

- **What size is your business?**
- **What is your current phone system?**
- **Are you happy with the system's costs and features? Is eliminating long-distance charges among offices a priority? Do you need advanced features like unified messaging, three-digit dialing among offices, Web conferencing, and multiple call-forwarding options? Yes answers to**

these questions indicate VoIP might be justified.

- **Do you have to make a change now? If your equipment is wearing out or your lease is up, it might be a good time to change.**

- **Do you have an IT person to sort through VoIP issues? If not, can you hire an outside consultant to do the formal ROI analysis and head up product selection? Otherwise, plan on committing a lot of time to doing this analysis yourself.**

- **How much will the new technology cost? Consider any upfront investment in equipment (phones, an upgraded PBX, etc.) as well as consulting or other charges (if any). Also account for any hard cost savings you expect from VoIP (things like eliminating monthly long-distance charges or eliminating the use of Web conferencing systems).**



VOIP PROPONENT:
Amerindo's Peterson says
VoIP was a no-brainer.

Nevertheless, companies of all shapes and sizes are starting to take the plunge, choosing from a range of VoIP options. At the high end, some are spending upwards of \$50,000 to invest in their own IP-based private branch exchange (PBX), as Amerindo did. At the low end, for businesses only requiring a few extensions, new VoIP pure play companies, like Vonage or Primus Telecommunications Inc., are offering services where—for about \$50 per month or less—companies can leverage their existing broadband connection to call anywhere in the United States and Canada. Companies, such as PC Connection, Inc., are offering products and services that allow customers to gradually migrate to VoIP and reap some of the benefits without the risk of giving up their existing phone lines.

No Risky Business

For Amerindo, the move was a no-brainer. The lease was up on its plain old telephone system (POTS), so it needed a new system, one way or the other. And unlike many companies of its size, Amerindo had a dedicated IT person, Peterson, who could wade through the confusing array of choices and work with providers on identifying and customizing the best solution. Amerindo had also been spending gobs of money on interoffice calls and teleconferencing services, so it stood to gain a significant savings by making the switch.

Beyond any savings, VoIP's sophisticated telephony features would help the tiny Amerindo masquerade as a much larger company. For example, with the unified messaging feature of its VoIP solution, Amerindo employees can elect to have voice-mail messages sent to e-mail (very convenient for road warriors) or vice versa.

Employees can also forward their calls to a cell phone or home phone—or anywhere else, for that matter. The system's call center functionality lets the company operator immediately see who is available to take a particular call, letting her match the available experts with waiting customers in an instant. Better still, farflung employees have all the features of a full-blown PBX in their remote offices, such as conferencing, call forwarding, and the ability to receive voice mails in e-mail.

All of these factors pointed Amerindo in the direction of VoIP. But rather than making a 100 percent conversion, Peterson elected for a hybrid system. Layering VoIP over a traditional phone system is a smart move, given that VoIP is still a fairly new technology, and quality and reliability can be significant hurdles. "There's always a big fear of the unknown—what if there's a glitch and your business has no dial tone," says Brian Washburn, senior analyst in network services for Current Analysis Inc., a consultancy in Sterling, VA.

Washburn was recently part of a team that looked at installing VoIP at Current Analysis, which has 120 employees. After the review, they decided a conversion wasn't worth it. "If something went wrong, we're not small enough to fix the problem ourselves or big enough to make the provider fix it immediately," says Washburn. "We would have some cost savings, but they would only be a couple hundred a month."

Lexa Gandolfo, principal at Washington, DC-based 3210 Consulting, didn't feel any such risk related to her decision to trade up traditional phone service for VoIP. Gandolfo, a Web developer who collaborates with 10 to 15 contractors at any given time, became interested in VoIP when she contemplated opening a Chicago office. "I was going

The Road to VoIP

- 1. Strategy. Know your primary objective for moving to VoIP. (Cost savings and access or advanced telecom features are examples.)**
- 2. Evaluation. Do a risk-benefit analysis weighing VoIP benefits vs. the risk of going to new phone technology.**
- 3. Selection. Identify your different VoIP alternatives based on your pre-existing phone system.**
- 4. Implementation. If you need more than three phone lines, hire a consultant to help with the switch.**

to be in Chicago a lot of the time, but I wanted to hold on to the DC number,” says Gandolfo, who signed up for Vonage’s VoIP service in May. “It’s a normal phone—no one ever knows I’m on VoIP.”

Other than a cell phone, Gandolfo no longer has a regular phone. At first, she experienced some quality problems with the VoIP service—specifically, some echoing—but said Vonage was responsive in getting them fixed. And she’s a big proponent of the versatility of such VoIP features like being able to listen to voice-mail messages in her e-mail system.

Residential VoIP (which is effectively what Vonage and Primus offer, since they piggyback on home or SOHO broadband connections) does not offer the same quality as good old Ma Bell. “Sometimes it works, sometimes it doesn’t,” says Current Analysis’s Washburn. Problems like echos and delays crop up when the Internet is congested. After all, the voice packet has to contend with data packets for the same Internet resources.

For this reason, PC Connection is encouraging small-business owners and consumers to dip their toes in the VoIP waters through its new IP Connection Netphone while keeping their regular phone connection. Offered at \$29.95 for one Netphone (or \$49.95 for two), the customer plugs the Netphone into their computer’s USB port or RJ45 jack to leverage an existing Internet connection—even dial-up. There is an annual charge of \$24.95 for this service, which features call forwarding, caller ID, Web conferencing, and seven-digit dialing between Netphones. Calls between two Netphones are free (hence the special pricing for two). Calls from a Netphone to a non-Netphone in the U.S. and Canada are charged 2.9 cents per minute.

“It’s VoIP but without much disruption,” says Mike Cyr, product manager for PC Connection in Merrimack, NH.

Quality Control

Businesses larger than 50 employees should consider higher-end, business VoIP solutions such as Avaya IP Office and Cisco AVVID. inChord Communications Inc., a group of marketing communications firms in Westerville, OH, uses Cisco Aviid IP telephony products and software to

connect workers in its seven U.S. offices. With 250 people at headquarters, a residential VoIP solution just wouldn’t cut it. “inChord was already a Cisco user so its VoIP product line made sense,” says Sean Burke, director of network operations for inChord.

With VoIP, as with so many other technologies, it’s a company’s unique situation that determines whether it’s a good investment. If you have no complaints about the cost of your current phone system, there is probably no reason to move—as of yet. On the other hand, if your old phone system is wearing out and the long-distance bills are killing you, it pays to at least investigate VoIP.

As one of the earlier SMB VoIP adopters, Peterson is a proponent of the technology. “The savings have far exceeded what I expected and the features help us look like a much bigger enterprise,” he says. “Don’t be afraid of this technology—it really works.”

Lauren Gibbons Paul has more than 15 years of experience as a writer for such publications as *eWEEK*, *CIO*, *Managing Automations*, and *Network World*.

VoIP Basics

What it is: Voice-over Internet Protocol, also called Internet telephony, means making a phone call over the Internet.

How it works: Rather than sending voice messages over the Public Switched Telephone Network (PSTN, aka Ma Bell), VoIP sends speech over a data network. Quality is inherently less than traditional telephone service since voice packets have to compete with data packets to get to their destination. Connection quality is better than cell phone quality, however.

What it promises: Since you are making calls over your broadband connection, you can make free calls to your heart’s content.

What you need: You’ll need to either convert your traditional phone system to VoIP, sign up with a service provider to run VoIP over your broadband (cable or DSL) connection, or choose a solution that lets you keep your existing phone lines.