



By: Rich Tehrani,
Group Editor-in-Chief,
Technology Marketing
Corporation

How low can telecom rates go? The answer: lower — much lower. The good news is that rates will go lower while voice quality improves. To date, VoIP ([VoIP - define - news - alert](#)) has helped re-duce telecom rates by orders of magnitude. I recall paying around 20 cents per minute for long-distance when this magazine was launched back in 1982. You probably remember those days. Back then, a state-of-the-art phone had hard buttons you pressed to get from

places a VoIP call to your toll-free number.

Obviously, there is a good deal of waste in the above scenario, as we are adding unnecessary expense and complexity to VoIP calling. Enter VoIP peering, or voice peering. This concept allows VoIP service providers to communicate with one another via an interconnection supported by the providers. In the future, a CallVantage customer will be able to connect with a Vonage customer without having to convert back to a PSTN line. This will all be done via peering.

Without getting into too much technical

([news - alert](#)) and Kagoor ([news - alert](#)) are providers of such products.

Enterprise customers and contact centers in particular are the next frontier for VoIP peering. It is still early in the game, but if your center has a multimillion dollar phone bill, it makes sense to start exploring how you can take advantage of VoIP peering to reduce costs. Think of today's VoIP as a hub-and-spoke model. In fact, Shrihari Pandit, the president and CEO of [Stealth Communications](#) ([news - alert](#)), a leading peering enabler, offered me the following analogy: In today's model, we need to connect in Chicago when we leave New York to go to Los Angeles. Peering networks will allow us to have calls go directly from point to point. No hub is needed, which means lower latency and other issues.

Another player in the space is [Telx](#) ([news - alert](#)). Telx's chief strategy officer, Hunter Newby, is a huge industry evangelist. At a recent peering event they hosted, he made a powerful case for why the world will soon embrace peering at a rapid rate. I usually keep more technical stories like this in TMC's sister publication, *Internet Telephony*®; but in this case I wanted to open the industry's eyes to the future of VoIP and how we will save even more money while reducing inefficiency. If you are interested in learning more, there will be a good deal of emphasis on VoIP peering at our Internet Telephony show this February 22-25 in Miami. Please visit <http://www.itexpo.com> for details.

The Technology Behind Speech

This month, Nadji Tehrani's Publisher's Outlook offers an excellent overview of

Peering Into The Future

one line to another, and you paid [AT&T](#) ([quote - news - alert](#)) for the electricity to light up the buttons on the phone!

Let's fast-forward to 2004. Rates are low...just a few cents per minute, and they will drop further due to a new technology that allows VoIP service providers to bypass phone networks altogether. Today, if your call center uses VoIP, when you place a call, it goes through a gateway to convert from IP to a POTS (plain old telephone service) line on the PSTN (public switched telephone network) and rings your customer's phone.

Going over the PSTN adds expense as well as taxes and fees charged by the government for these connections. Imagine if your customer uses [Vonage](#) ([news - alert](#)) or AT&T CallVantage. Your VoIP call, initiated in your office, must go through a gateway to go over a PSTN line which goes to the VoIP service provider who then converts the call back to VoIP and sends it to your customer over a broadband connection so that he or she can take the call. The same thing happens in reverse when a customer

detail, you need to peer at different layers from the actual media, such as fiber or copper, to the data link layer or Ethernet to the application layer, where the Web-based tools live. (For more information, please consult www.thevpf.com/txt/VPF%20Fact%20Sheet.pdf.)

One complex question you need to ask at this point is, how do we actually call one another? Telephone numbers aren't needed in the VoIP world; we can use an IP address or, better yet, a protocol called ENUM, which can map an e-mail address to an IP address. Another complexity is, how do we deal with the different codecs and protocols between carriers? The PSTN uses standard compression, and every call takes the same amount of bandwidth, while the VoIP world allows calls to have varying bandwidth sizes, and codecs vary as needed to provide optimal quality. Session border controllers allow for the conversion of large numbers of VoIP calls. Companies like [Netrake](#) ([news - alert](#)), [Jasomi Networks](#) ([news - alert](#)), [Sansay](#)

how speech technology will transform the contact center. If anything, I think the conclusion may be too pessimistic. This is the year in which Moore's law has really allowed computer power to be so cheap that speech recognition can be done affordably, and the ROI can be a few months for many applications. To make matters even better for speech, the confluence of a couple of events has led to an even better environment for this technology. The first event is VoIP allowing companies to purchase SIP ([define - news - alert](#))-based toll-free numbers from VoIP providers, and the second event is host media processing, or HMP ([define - news - alert](#)), meaning that the processor itself can handle over a hundred voice channels. This means that speech processing applications can now take place over a broadband connection. No specialized equipment, such as DSP ([define - news - alert](#)) resource boards, is needed, and as processor performance increases, you are able to handle more and more channels. It will literally cost orders of magnitude less to install and

use a speech-based IVR ([define - news - alert](#)) system than it did just a scant five years ago, as no specialized hardware is required! You no doubt know that TMC's Speech-World event is around the corner, this Spring, in Dallas, Texas. This is the event you need to attend if you want to get up-to-speed on this technology and learn how to apply it correctly. I hope to see you there.

Save Money While Broadening Your Reach

While I am getting everyone accustomed to thinking about their businesses in a new way, here is one more idea for you to noodle on. A company called SoundBite has an interesting hosted service that allows companies to communicate with their customers via the telephone without the need for live agents. Using professionally recorded messages, a call goes to your customer (this technology cannot be used for cold calling), allowing you to deliver a consistent, personalized message to your customer. The company tells me that you can lift response rates on traditional channels, such as direct mail and e-mail, by 30 or more percent at a

reasonable cost just by implementing their service in conjunction with other marketing methods.

SoundBite's service has answering machine detection that is 98 percent effective. Applications include alerting a customer to potential identity theft, payment reminders, renewals and customer surveys. The kicker here is that customers are in control and can choose to speak to a live agent immediately if they are interested in your offer. This is a big step above "blasting" applications and can be used to really boost CRM levels in many applications.

Hopefully, I've given you some food for thought about new ways to look at technology in your contact center. Watch this space for further developments as these technologies unfold.

Sincerely,



Rich Tehrani
Group Publisher, Group Editor-in-Chief
rtehrani@tmcnet.com



For information and subscriptions, visit www.TMCnet.com or call 203-852-6800.

