

## Broadband Telephoning: It's 'OK' Now

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Contributing Writer

Mention the term "Voice over Internet Protocol" to someone who signed up early in the development of broadband telephone service, and watch her eyes roll.

She may grit her teeth with memories of the propensity of her trucking company's Ethernet-connected phones to suddenly drop dead.

Those were the bad old days of what's commonly called VoIP (pronounced "voyp"). With the maturing of the technology, businesses now

tend to say it's OK to depend on the Internet to carry their phone messages; it's no less reliable than standard fixed-line and cellular services.

One also may say VoIP is a good deal more user-friendly than it used to be — programming an IP phone unit to suit one's personal tastes may still frustrate the uninitiated — and it is less expensive than the traditional public switched networks.

What one may add is one of those lessons learned by bitter experience: When your IP service crashes, ability to make and receive phone calls is lost — if you don't have a backup.

At Moran Transportation, Elk Grove

Village, Ill., which contracted a VoIP service in late 2007, the old, still-functioning copper cables come in handy during service interruptions.

"You can't really knock the reliability of the POTS line," said Michael Moran Jr., vice president of the 180-truck, 300-trailer less-than-truckload carrier. POTS stands for "plain old telephone service" — the kind we all grew up with.

Congestion caused by heavy traffic, router failures, software glitches and the vulnerabilities of the Internet are VoIP's weak points. Integration of voice and data communications over a single network, delivered by cellular, Wi-Fi and area computer network, plus unification of many services, including faxes, e-mail, voice mail and video conferences in a single station, are VoIP's attractions.

So, too, is the free long-distance, PC-to-PC calling within a network. PC-to-landline calling within North America is less expensive than most cellular connections.

Though he has been frustrated by inconsistencies of the service from his local provider, Moran said he loves "the concept, the added functions and lower costs" associated with VoIP. With everyone from office staffers to dispatcher and drivers using the network, Moran said, the whole company appreciates "the ability to transfer calls between facilities — which means we move calls across state lines very quickly."

Moran Transportation provides trucking and warehousing for air and ocean freight throughout eight Midwestern states from five terminals.

After estimating a cost of \$150,000 to upgrade its legacy phone system, the fleet opted for VoIP, for which the outlay was "\$35,000, tops," Moran said. And it took "only a couple of days to install."

The service provider charges Moran \$35 a month per phone for North American coverage. International calling is "super cheap — like a penny or less a phone per month," Moran added.

The largest Voice-over-Internet Protocol software vendors in the United States are ShoreTel, Cisco, Avaya and the most recent entry into this field, Microsoft, according to Ron Beck of consulting firm RSM McGladrey.

Numerous smaller, localized vendors also serve the market.

The earliest versions of the technology hit the market a decade ago, though trucking companies seem to have embraced VoIP only in the past three years or so, said Ron Beck, director of information technology consulting for RSM McGladrey Inc.'s telecom practice. RSM McGladrey, Bloomington, Minn., is a business consulting firm.

Transmitting phone calls over the Internet cuts out the time- and distance-based fees charged by trunk-line providers. You pay for the software that turns the sounds of human voice into digital data, the handsets and company network, an Internet connection, training and maintenance.

Often a third party or a partner of a national VoIP firm packages all this service — separate from your business arrangement with your Internet service provider.

Lou Person, owner of Brightstack Technologies, New York City, is a reseller of ShoreTel IP systems. A typical installation, which starts with creating network architecture, costs \$700 per user, including training, Person said.

In the early years, Beck said, service providers and their customers' information technology people often didn't "understand all the nuances" of sending voice over an IP, "so there were a number of poor implementations."

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Early telephone service over the Internet suffered teething problems, but today's users praise its improved reliability, cost advantages and extensive list of optional functions.

## Fiber Optics Enhance VoIP Performance

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A common failure point was bandwidth that was inadequate for the digital-packet traffic.

The extensive build out of fiber-optic cable in recent years has made VoIP affordable, even cost-effective, for truck fleets of all sizes, Beck said, and some fleets "pass on the savings to their customers."

**A**t Dohrn Transfer Co., Rock Island, Ill., John Dohrn, vice president of the family-owned business, said when it was time to replace the multipurpose carrier's "long-in-the-tooth" legacy phone system, he was more interested in the many functions that VoIP can deliver than in saving calling charges.

Dohrn chose a product with a Windows-based program, built on the operating system common to desktop and personal computers. It coordinates all calls through Outlook Express, Microsoft's e-mail engine, "so folks can easily take advantage of conference calls," Dohrn said.

The Internet-PC interface is what gives VoIP its extensive repertoire of

options. And everyone wants a customized set of functions, consultant Beck said. Among commonly requested functions are integrated messaging — voice mail sent to the e-mail inbox — and integration with smart phones for mobility.

Carrier Logistics Inc., Tarrytown, N.Y., has incoming calls routed "so they follow me out of the office or to a conference room," said Kenneth Weinberg, vice president of the trucking enterprise software firm.

In March 2008, Dohrn Transfer, which serves the Midwest with 400 tractors and 1,400 trailers, began deploying a VoIP service in stages, starting with 100 phones at headquarters and plans to install the program at each of the fleet's 20 terminals. Dohrn has 800 employees.

"We get a great log that tells you the whole history of an employee's phone use — transfers, putting people on hold and how the calls were routed," Dohrn said. "All this information has proved

very useful, particularly in managing customer service."

Dohrn dismissed initial costs of installing VoIP as "not anything extraordinary." He said his company spent \$30,000 for all hardware and software.

In the end, he said, efficiency and savings have been "everything we hoped."

**A**s for those inevitable service interruptions, Dohrn backs up VOIP with a "handful" of fixed-line phones.

Cell phones, too, can be used as a backup, but they are costly to operate for more than a short time as a company's chief communication tool.

Carrier Logistics has two backups: a copper wire and a cellular service. That way, for a problem with the Internet, a customer still can call in on the fixed line and have someone return the call on their cell phone, Weinberg said.

But even those alternatives can fall quiet in a power outage. That's where CLI's backup to the backup comes in. It's an electrical generator. ♦

Eighty-two owners, vice presidents and information technology managers of multi-stop couriers and less-than-truckload carriers responded to an informal survey posted by Carrier Logistics Inc. about experiences with Voice-over-Internet Protocol phone services.

Thirty of the respondents said their companies have VoIP, 28 of whom said they like it. Nine said they were having problems with it.

Fifty-one do not have VoIP or did not know what it is.

## Imaging List

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from Stellent Inc., a company that in 2007 was absorbed by software giant Oracle Corp., Redwood Shores, Calif.

Standard Forwarding, a 75-year-old carrier, provides regional overnight less-than-truckload services.

"Our number of customer service representatives and windows were about cut in half," said Kevin Mishler, information technology manager. "In 2004, 2005, we had about 25 customer service representatives. Now we're running about 12."

The Oracle system, called Universal Content Management, paid for itself in about 2½ years, Mishler said.

Mishler also noted that the sheer volume of data now stored electronically helped eliminate \$150,000 in annual paper costs.

"We roughly have, at any given time, between 8 million and 10 million records in our contribution vault," he said. ♦