

Sponsored by:



NETWORKWORLD

This story appeared on Network World at
<http://www.networkworld.com/news/2005/121905-voip.html>

VoIP cures agency's telecom ills

By [Bob Brown](#), Network World, 12/19/05

CHARLESTOWN, Mass.-You can talk all you want about [VoIP](#) lowering costs or simplifying management, but for the Visiting Nurse Association of Boston CIO Fran Lorion, a key test for the technology was how front desk receptionist Lovey Pulsifer would react.

"She was two feet off the floor for the first few days we had the new system," says Lorion of Pulsifer, who handles 350 calls per day, roughly 200 from patients. "Believe me, she wouldn't have pulled punches if it wasn't working."

The nonprofit agency, which employs about 500 people and provides service to some 15,000 patients per year, ditched a burdensome Centrex contract and an out-dated call center system and switched to a \$300,000 in-house IP PBX system this past summer that Lorion says should pay for itself before long.

The reason that the system makes such a difference to Pulsifer, one of several receptionists in the organization, is that it automatically identifies callers by their phone numbers and presents their data on her computer screen as she answers the phone. With patients speaking many languages or having accents, the system cuts down on communication problems. "Most patients seem to like being greeted by name," she says.

The VNA of Boston is running a converged voice and data network across four sites based on 14 ShoreTel PBXs (1U-high servers) and about twice as many Asante Ethernet switches, which provide power over Ethernet to a few hundred ShoreTel IP phones (the nurses generally don't require their own IP phones in the office because they are mainly in the field). The VNA has devoted a subnet to its voice traffic, says Dave Hanley, manager of systems operations.

The application supporting Pulsifer involves the ShoreTel system, through its Call Manager software, delivering caller ID information to an application from Traxi Technologies that sits on the receptionist's desktop (see graphic, next page). The application then grabs the phone number, queries a Microsoft Access database containing a subset of patient data and delivers pertinent information to the receptionist's desktop.

[Click to see:](#)

VoIP tips

Lessons learned by the Visiting Nurse Association of Boston in moving to VoIP.

- Don't be surprised if what seem to be basic applications haven't been considered or developed by your vendors.
- Determine how long you want the system to last and hold vendors to that in your contract.
- Network analysis tools are pretty basic, so press vendors for tools that go beyond simply tracking the number of sustainable voice calls.
- While keeping some analog phones makes sense as part of a disaster recovery strategy, be aware that they can chew up more port space on a PBX than IP phones do.

"The fascinating thing to me about this sort of application is that it wasn't just built into any of these systems. It seemed so obvious to me that it would be," says Lorion, who leads a 10-person IT staff. "I mean, haven't any of these people bought things from L.L. Bean? They've had this sort of system for years, right?"

"A lot of the vendors can understand this application in a call center environment but hadn't thought about it for other environments," he says. "The vendors in this VoIP market seemed much more focused on making a technology replacement as opposed to understanding business problems. That might work in an immature market, but somewhere down the line these guys need to start looking at it as a business solution."

The VNA reevaluated its phone system as a result of two developments.

First, it was unable to renegotiate a seven-year Verizon Centrex contract that covered 1,000 voice mail boxes, even though the VNA had reduced its workforce in recent years and needed only about 500. "We approached Verizon about this two or three times because it was costing us a fortune and we weren't getting particularly good service," Lorion says.

Second, the software being used by the VNA to support its eight-person call center served the organization well since the mid-1990s but was "well beyond its useful life," Lorion says. With the organization figuring to swap out its Centrex system for an internal PBX system, the VNA had the call center system built into it, Lorion says. The call center deals mainly with hospital contacts, such as doctors and patient liaisons.

Lorion says that the VNA wasn't predisposed to going with VoIP in making its system upgrade and sent its RFP to traditional as well as IP PBX vendors in the fall of 2004 in a process that lasted into this past spring. Prospective vendors included Avaya, Cisco and Nortel.

"We all knew about VoIP but were still pretty naive about it at the time," he says. "But even all the traditional PBX vendors were recommending a VoIP solution or a bridge, so the message to me was pretty clear about where the future is."

The VNA brought in a telecom consultant during the summer of 2004 to school it on the state of the art in phone systems and help come up with a game plan. Among other things, the VNA decided it wanted a phone system that would last at least 10 years.

Lorion, who joined the VNA of Boston in 1997 to oversee its IT department, says he had "avoided phones for as long as possible," as they fell under the jurisdiction of the organization's facilities and administration group. "But it didn't take much to think with convergence that voice and data needed to be in the IT department," he says.

Among the efforts undertaken by the joint voice and data team was ensuring that the VoIP network would stay up and running. The VNA upgraded its network to 10/100Mbps to the desktop and 1Gbps within the data center. Most cabling stayed the same. The organization's sites link to each other primarily via T-1 links. The VNA has also put in place a multipronged security system but declines to share details.

"Network performance and capacity is a key area for evaluation," Lorion says. "We believed that we had a pretty robust data network and had planned to increase bandwidth anyway, but it was still a bit of a challenge to get the network where we needed it to be to support the voice component."

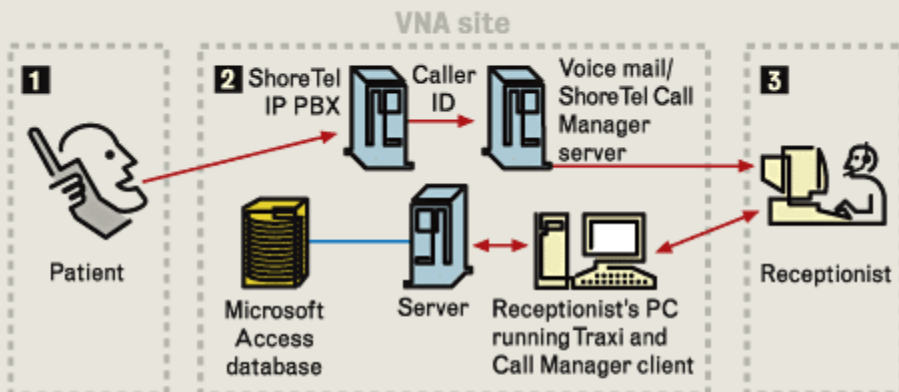
To ensure network availability and keep costs down, the organization has retained some analog phones and lines that can be used by those who don't need IP phones or in the event of a major power failure. Plus, there are always cell phones if all else fails, Lorion adds.

Now that the VNA's VoIP system is in place, Lorion says he is looking forward to rolling out other applications. "Based on what we've already been able to do, we can go in any number of directions with this."

[Click to see: Improving customer service](#)

Improving customer service

The Visiting Nurse Association of Boston is using VoIP to support an application that enables receptionists to handle patient calls more efficiently.



1 A patient calls the VNA.

2 The ShoreTel IP PBX hands off caller ID information to a ShoreTel program called Call Manager, which runs on both a server and the receptionist's desktop. The client side of Call Manager passes the caller ID data to an application from Traxi running on the desktop, which in turn queries a Microsoft Access database on a network server. The database returns requested data to the Traxi application, which pops the patient's information onto the receptionist's screen.

3 The receptionist is able to address the caller by name and has immediate access to the patient's records.

All contents copyright 1995-2006 Network World, Inc. <http://www.networkworld.com>