

## CASE STUDY

# At Handy, VoIP's impact is quick, forceful

*Voice and data are merged at the Lynchburg company and the beneficiary is the user*

BY LORIE LONG

If you worked at the Lynchburg headquarters of N. B. Handy Company and you needed to talk to a product support specialist in the Orlando location, you could start by consulting the company's unified corporate telephone directory either on your computer or on your desktop handset.

Using your computer, you could determine the contact's telephone number, and determine if the contact was on the telephone right now, or temporarily had forwarded his calls to voice mail or to his cell phone. If his line was not busy or forwarded, and you decided to put the call through, you could click your computer's mouse and your telephone would dial the call. Or, if that contact was not available, you could select someone else from the directory to assist you. You would be using a feature of the voice communications system called "presence awareness."

And, if you were David Houchins, N. B. Handy's Lynchburg-based technical support manager, you could make a software change that moves all of the telephone extensions for a particular department in a remote location from their previous offices on one floor to their new space on another floor before the employees could transport their desktop photos and philodendrons in the elevator.

Welcome to the dynamic world of Voice over Internet Protocol (VoIP), where data services and voice services converge to offer an incredibly rich set of features, functions and capabilities to its business users. By converting



**N. B. Handy's Dave Houchins and Angie Isaacs**

traditional voice signals to IP "packets" of data carried on a company's existing data network, voice and data services merge into a powerful, combined service offering that delivers enhancements in both voice communications and data systems.

N. B. Handy Company is one of the oldest distributors in the country, supplying wholesale commercial roofing products, sheet metal and sheet metal fabricating machinery, and high quality HVAC equipment and supplies. Thanks to the forward-thinking vice-president of

information systems at N. B. Handy, Angie Isaacs, this company now reaps the rewards of its newly completed, eight-month long, end-to-end implementation of VoIP at its 15 East Coast locations stretching from Florida to Maryland.

Dave Cropco, manager of technical services for Advanced Logic Industries (ALI), a Lynchburg-based communications consulting and systems integration firm, brought ALI's engineering talents, technical expertise and project management skills to the table. Together, N. B. Handy's information systems group and ALI have created a telecommunications foundation designed to support N. B. Handy's business plan for the future.

The time was right for addressing a significant upgrade to N. B. Handy's voice communications system. "We had a hodge-podge of different types of telecom services," explains Isaacs.

"We had some Centrex services (telephone company office-based voice switches) in our branch facilities, and a true PBX in [the Lynchburg] facility. There was no consistency throughout the organization in terms of what kinds of [systems] were being offered, and what kinds of services [the branches] had once they got a system." According to Houchins, each location had deployed different handsets and other voice communications hardware. N. B. Handy owned the Lynchburg PBX, which was covered under an annual maintenance contract from the provider.

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# VoIP

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"It was the benefits of VoIP that compelled us to move forward," says Isaacs. "We wanted one phone system for the entire company. It makes it very manageable in terms of adding and moving people, and [selecting] features and functions, and we can do it here, instead of having to call someone to come out every time we want a change made."

Cropco evaluated N. B. Handy's business needs, the voice and data systems that were already in place, and the additional functionality the company wanted to gain from a new system. "We walked through a process we use to identify what [a company's] needs are from a communications standpoint. We do a Return On Investment (ROI) analysis for them, looking at the cost of a new system, the savings they could realize, what changes they need to make, and the benefits of those changes.

"We presented a case to them about what their investment would be, and what the return on investment would be, from a standpoint of time, cost and the productivity advantages of VoIP. It was a very nice ROI case for N. B. Handy because they are multi-site, and they already had the data communications lines in place."

Not one to do things halfway, Isaacs directed the ambitious "forklift" implementation of VoIP for the company. "We completely replaced the existing legacy hardware," says Houchins. "I highly recommend it," states Isaacs.

"We wanted to make sure we didn't compromise the really robust data network that we already had in place," adds Isaacs.

She upgraded some of their "burstable" T-1 communications

lines, which delivered full T-1 capability only when N. B. Handy's data traffic required the extra capacity, to standard, full-time T-1 service.

"Also, we didn't want to roll out a new technology and have our users frustrated with quality issues," Isaacs notes. She insisted that the engineering of the VoIP service meet strict Quality of Service guidelines. "We structured the capacity of the voice portion of the network so that we can support twice as many conversations as we have handsets," explains Houchins. The ROI case study included these types of costs in its analysis.

N. B. Handy immediately experienced a 60-70 percent reduction in long-distance calling charges, according to Isaacs. "Those LD charges were mostly us calling each other, branch to branch," she explains. Now, these calls ride for free, using VoIP, on the company's data network. A restructuring of N. B. Handy's communications organizations captured the responsibility for voice and data systems under one department, which consolidates the groups, reduces costs and allows for the efficient management of all communications by one team.

Users have access to "huge productivity enhancers," says Isaacs. Everything from unified messaging to extension mobility and other features that combine the benefits of data applications with voice services can be installed by making a software change to the system.

So far, N. B. Handy has implemented "out-of-the-box" applications for its users, Cropco explains. However, custom applications, like tracking manufacturing productivity with telephone handsets, become merely a matter of writing and installing a new and unique application for their system.

Isaacs worked through the

change management issues among the employee population by balancing the need to learn new telephone system skills with the delivery of a host of new telephone system features. "When we asked employees who were previously dialing seven digits to now dial 10 digits to reach a particular location, we also implemented handy speed-dialing features to assist them, and added new features like caller ID to their service [package]," says Houchins.

"End-user training is very important to acceptance," adds Cropco. "We find that time spent in training users is time very well spent."

For instance, Cropco worked with N. B. Handy's personnel to understand the new features and the new keystrokes required to access them. Many traditional functions have become "much more simplistic" in the new system, he notes.

Snags occasionally plagued the VoIP implementation process at N. B. Handy. "You're going to have those struggles along the way," says Isaacs, "So you build in barriers so your end users don't feel it."

Initial implementation at corporate headquarters, followed by a staged implementation schedule at the branches, helped to ensure a smooth transition, along with the full participation of the company's telecom service carriers and other communications service and equipment providers.

Now operating a fully expandable network of voice and data services that supports the growth plan for the company, and offers the potential to incorporate a wide range of future applications, N. B. Handy has established a firm foundation of communications capabilities to serve their needs.

"They're in a great position now," says Cropco.

*(Lorie Long is a Union Hall-based freelance writer.)*