

# Ohio Hospital Migrates to IP Telephony to Assist in Delivering Quality Care to Patients

## CASE STUDY

Blanchard Valley Health System revives aging infrastructure with the NVT Phybridge switch innovation.

### Executive Summary

Blanchard Valley Health System  
Industry: Healthcare  
Location: 25 Across North America  
Number of Employees: 2,000+

#### CHALLENGE

- Needed a phone system that won't fail.
- Phones and phone system had reached end-of-life.
- Infrastructure overall could be costly and time-consuming given their need to be open 24/7.
- Requirement to have a disaster recovery plan in case of network outage.

#### SOLUTION

- Mitel offering powered by NVT Phybridge Long Reach Ethernet switches.

#### RESULTS

- Leveraging existing infrastructure eliminated all disruptions and risks.
- Secure network with a separate physical path for voice.
- Simple plug-and-play deployment.

#### PRODUCT LIST

NVT Phybridge PoLRE Switch Series

Blanchard Valley Health System (BVHS) has more than 100 years of experience serving the people of northwestern Ohio. Based in Findlay, BVHS is a non-profit regional health system that has experienced substantial renovations and expansions over the course of its history.

Today, it consists primarily of two hospitals—one with 150 beds, the other with 60—and one assisted living facility that serves as many as 300 residents. In addition, BVHS has a number of small campuses for outpatient clinics, research facilities, urgent care facilities and various other offices. In all, the health system is spread out across approximately 25 locations.

### Challenge

In the healthcare industry, work can be a matter of life and death. With this in mind, communication is of the utmost importance. When Jeff Kelley, the telecommunications system administrator for BVHS joined the team three-and-one-half years ago, one of the problems he encountered was that the hospital hadn't upgraded any software or firmware in the switches that powered the communications network. Shortly thereafter, Siemens contacted BVHS to let them know that the phones and infrastructure they were using had reached the end of their lives and the company would no longer be offering support for them.

After about 10 or 11 years of not upgrading the infrastructure, BVHS had no other choice. The health system needed communications infrastructure upon which it could rely because of the serious nature of its business mission: caring for its patients across the entire span of their lives. BVHS needed a cost-effective, dependable solution for its 2,000 phones spread out across 25 geographically disparate campuses, and it needed redundancy and resiliency to ensure open lines of communication in case certain networks were ever knocked offline.

Having had the same phone infrastructure in place for about a decade, BVHS began to weigh its options and started by looking at the equipment it already had in place in order to decide what—if anything—could be salvaged or whether it should instead go ahead and acquire all new equipment. What the health system had on hand dated back to 2002, so after analyzing the demands of the end-users—who wanted IP telephony, unified communications and other advanced features—it decided to go with new equipment. The old phones simply didn't have those capabilities.

After comparing solutions from vendors like Siemens, AT&T and Cisco, Kelley says he was ultimately attracted to a Mitel offering through BSB Communications because of the versatility that solution provided. That pair also provided BVHS with tons of research on various offerings that the health system could peruse to determine what worked best for them.

"Cost was important. I wasn't pinned down to a specific brand," Kelley says. "Mitel gave us the flexibility to use third-party equipment, whereas [the other brands] forced you to buy proprietary equipment."

Because of the spread-out nature of BVHS' 25 locations, the health system needed a vendor that could offer a high level of customer support.

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Telecommunications System  
Administrator  
Blanchard Valley Health System

Kelley explains that there were few vendors willing to drive four hours to offer support at a distant site. But BSB Communications was willing to provide the kind of service the BVHS needs.

Because of the health system’s desire for redundancy and resiliency, BSB suggested it also use solutions offered by NVT Phybridge, a manufacturer of switches that deliver Ethernet and Power over a single pair of wire four times further than traditional switches.

“In the event of failure, I need to know how we could keep our systems alive,” Kelley says. “That’s when they presented the NVT Phybridge solution.”

Such switches give organizations the ability to migrate to IP telephony while leveraging their existing, reliable communications infrastructure. In addition, the solutions provide an extra layer of redundancy, as voice and data lines can be kept separate so that if data were to fail, voice would remain online—something very attractive to a healthcare provider.

### Solution

After doing his due diligence, Kelley decided to go with BSB’s offering of Mitel phones and NVT Phybridge switches. With this solution in place, BVHS can fulfill its mission of delivering quality care to its patients.

“NVT Phybridge was essential for our disaster recovery plan,” Kelley explains. “If we were to lose a certain portion of network connectivity, how do we maintain our telephones? NVT Phybridge fit the bill for that. We have designated all those phones in the hospital with a red handset cord, so that employees know that in case a network goes down, those phones are on a backup system that should be in good shape.”

The entire migration process took six months, a time period Kelley says was “very reasonable” considering BVHS has hospitals that need to stay online 24/7. Work scheduled in certain areas has to be postponed from time to time because of other things happening in the hospital that were deemed more important. The migration was done floor-by-floor on a department-by-department basis. After finishing a section of the project, Kelley and his team reached out to end-users to make sure they were comfortable with the product before moving on to the next department because they didn’t want to have to look back after getting one done. They didn’t.

“When we actually began to deploy, it was pretty seamless,” Kelley says. “The departments were unaware.”

### Results

Kelley says he’s very pleased with the quality of service BVHS enjoys thanks to the solution it chose.

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“I don’t have a lot of service issues,” Kelley explains. “I’ve maybe had a problem with 20 of the phones, and half of those were because of end-user issues, like someone spilled a drink on one. The system just works. We’ve got failover in place that keeps us alive at all times.”

The NVT Phybridge solution also resulted in substantial cost savings. Kelley estimates that NVT Phybridge’s switches cost about half of what Cisco offers. On average, the health system had to spend \$3,500 to \$4,000 on NVT Phybridge’s solutions, compared to \$7,000 to \$9,000 for Cisco.

Installation was essentially “plug and play,” Kelley continues. The factory specs indicate the switches deliver power and Power over Ethernet 1,200 feet, but they reach further at some BVHS campuses.

“I have some deployed well over 2,000 feet working just fine,” he says of a handful of phones still running Category 3 cables in out-of-the-way locations.

Kelley says he was—and continues to be—very pleased with BSB’s professionalism. Employees at BVHS are also pleased with their new communications infrastructure.

“The end-users are absolutely satisfied with it,” he says. “The solution provided a lot of flexibility for them as far as things they couldn’t do before. With the new features [like unified communications], you can do about anything you would want to do.”