ShoreTel

SHORETEL 'PUMPS-UP' EFFICIENCY AT HOUSTON HEART CENTER WITH RELIABLE, EASY-TO-USE VoIP SOLUTION

Woodlands North Houston Heart Center increases call volume by 50% and achieves five-nines reliability with ShoreTel solution

WOODLANDS NORTH HOUSTON HEART CENTER

Challenge:

For Woodlands North Houston Heart Center, technology is a front-line ally it an all-out campaign to prevent, diagnose, and cure heart disease. Therefore, when they moved to a new main facility, WNHHC wanted to upgrade its traditional phone system with a new one based on IP telephony that could span its main and branch facilities, accommodate increasing call volumes, streamline communications, and boost the efficiency and productivity of the professional and administrative staffs.

Solution:

A single ShoreTel IP phone system was installed to exploit the possibilities of the brand-new 50,000-square-foot main facility while extending next-generation voice features transparently to existing branch locations.

Benefits:

ShoreTel's unique approach to IP telephony has enhanced the call handling volume by 50% and increased the productivity of WNHHC's staff while delivering five nines (99.999%) of reliability. The flexibility and ease-of-use of the ShoreTel system provides WNHHC with a virtually unlimited number of ways to direct incoming phone calls and route them quickly to the right place. With intelligent call routing that makes use of presence-sensing capabilities and calendar integration, the ShoreTel system ensures that patients get connected quickly and painlessly to the right healthcare professionals, wherever they happen to be at the moment.

An ounce of prevention is worth a pound of cure, and Woodlands North Houston Heart Center takes this age-old philosophy fully to heart as it pursues its mission of providing state-of-the-art coronary care. Technology is a front-line ally it an all-out campaign to prevent, diagnose, and cure heart disease.

The clinic's environment is virtually paperless: Wireless laptops have joined stethoscopes as standard equipment for doctors, and all test results, medical records and reports are digital and can be transmitted instantly to the right people anywhere in WNHHC's two facilities, or to consulting experts around the globe. And WNHHC is one of the first practices in the country with a revolutionary CT machine-a Toshiba Aquilion 64 CFX-which enables 3D scans that eliminate the need for more invasive diagnostics, including many catheterizations.

The communication infrastructure has to keep pace with healthcare advances, and ShoreTel's easy and effective IP telephony system is a perfect fit for this technology-oriented organization.

Moving to a new main facility in 2003 presented a prime opportunity to replace a traditional and outgrown Toshiba DKT 424 phone system with a new one based on next-generation IP telephony and voice/data convergence. WNHHC went looking for a single system that could span its main and branch facilities, accommodate increasing call volumes, streamline communications, and boost the efficiency and productivity of the professional and administrative staffs.

Alternatives that didn't measure up included solutions from Avaya, Nortel and Toshiba. In contrast, ShoreTel knocked the evaluation committee's collective socks off with a presentation that included configuring a live ShoreTel system in minutes and using it to place calls to the cell phone of a doctor in attendance.

"ShoreTel's distributed architecture with no single point of failure made it an easy decision," said WNHHC administrator John Henderson. "Voice communication is a mission-critical application for us, and the ShoreTel system's ability to deliver five nines (99.999%) of reliability made it stand out from the competition."

"ShoreTel was also the only vendor to provide a live demo," recalls Henderson. "It captivated our doctors who were part of the briefing. In fact, they immediately remarked, 'We have to have this.' "

At this first meeting, the ShoreTel system was shown to work with a wide range of analog, digital, and IP phones, and instantly configured and used a number of advanced features. The ShoreTel system showed itself to be a very flexible and scalable solution that was much easier to maintain, manage, and use than the other systems, could be readily customized to meet specific needs, and delivered a lot more bang for the buck.

NEW REQUIREMENTS AND OLD CONSTRAINTS

Greenfield opportunities can simplify infrastructure upgrades-except that they are rarely absolute. Like many organizations, WNHHC had more than one site, and needed a single phone system that could exploit the possibilities of the brand-new 50,000-square-foot main facility while extending next-generation voice features transparently to existing branch locations.

The obsolete Toshiba phone system was hardware-driven, unreliable, and very difficult to program. Features such as ACD were add-ons requiring considerably hands-on integration. On the user side, the staff couldn't do extension dialing or overhead paging across sites, and it was hard to transfer calls.

"You had to access trunk groups, get a dial tone on the other side, and then dial the extension," remembers Henderson. "And it was a long-distance call between locations, even though they were only 12 miles apart." WNHHC wanted a phone system that could streamline communications by offering unlimited ways to direct phone calls.

By the time the planning for the 2003 relocation got into full swing, the legacy phone system, pressured by the requirements of a growing business, was becoming quite unreliable. The increasing call volume would cause it to lock up or choke in a variety of ways, and a revolving door of third-party maintenance technicians would have to come out to the site and try to fix things. One of them eventually changed jobs and suggested a ShoreTel solution, and WNHHC's VoIP migration began.

ONE MULTIPLE-SITE PHONE SYSTEM

PBX functions were entrusted to seven ShoreTel switches distributed across WNHHC's two main facilities: two ShoreGear 24s and three ShoreGear 12s at the new main clinic and two ShoreGear 24s at the Woodlands branch location. Two ShoreGear T1 switches provide PSTN access to the headquarters, and point-to-point T1 lines connected by Cisco routers link the two sites in a high-speed WAN.

Images and other electronic files get pushed back and forth constantly, and the storage and maintenance of patient medical records are outsourced to a specialized ASP in California.

A handful of analog phones have been preserved for lobby areas, but WNHHC's staff members are now equipped with ShoreTel IP 100 phones, and the network administrators have top of the line IP 560 models that support 6 line appearances and have a 6-line LCD display. With their sleek design and ground-breaking ergonomics, the revolutionary ShoreTel IP phones enhance rather than detract from WNHHC's high-tech image.

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![ShoreTel logo]

The nurses and medical assistants are both highly mobile and very phone centric, so the clinic terminated a bank of extensions in pod stations placed strategically for patient care. The ShoreTel system can support virtually any type of handset, and the IT staff and team experimented with an assortment of off-the-shelf analog cordless phones until they found one that didn't interfere with WNHHC's mission-critical wireless data network.
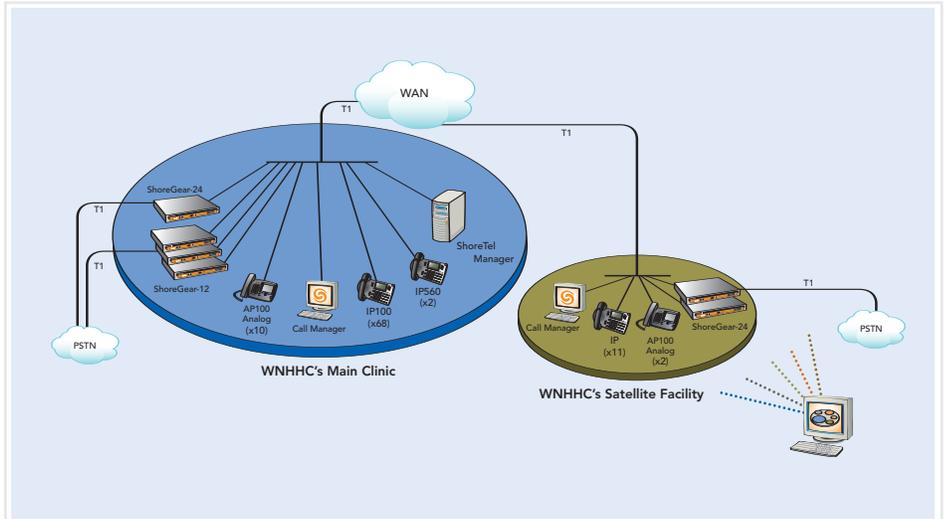
WNHCC deployed ShoreTel to two locations with 93 phones.

"Using ShoreWare Director, we are now doing all our phone management in-house. Before we had to pay the phone company $20,000 annually plus $150 an hour for service calls."

The nurses running the pods carry these handsets as they move about the clinic, and are always in voice contact when patients or colleagues need to reach them. The nurses and other staff members can log into the pod stations or any other phone or desktop and have immediate access to their voicemail and personalized handset or desktop features.

The more PC-centric staff members took to ShoreTel's award-winning Personal Call Manager interface eagerly, requiring very little training. The highly intuitive PCM puts unified messaging and PBX-level call control on each desktop, and integrates with Outlook directories and calendars for automated dialing and call routing.

EASY TO IMPLEMENT AND MANAGE

WNHHC's old phone system was hardware-based and very difficult to manage, upgrade, and expand. Changes involved major programming efforts.

In sharp contrast, the ShoreTel phone system is based on softswitch technology, with server and client applications that run on standard Windows platforms. The IT staff does not have to learn a new system to be able to run the ShoreTel network. "And the clinic staff was able to start helping patients right away with no interruptions," says Henderson. He credits ShoreTel's simple installation and minimal training requirements with making the entire migration process "much easier."

The ShoreTel system also comes standard with a lot of built-in functions that competing VoIP platforms offer only as separately purchased options that impose additional integration and configuration overhead. These include ACD, workgroups, and voicemail.
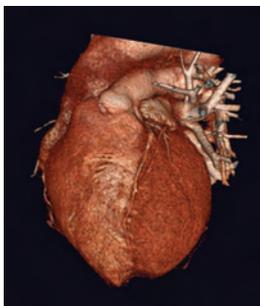
![ShoreTel logo]

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Another big difference is ShoreTel's ability to operate as a single phone system across multiple locations, and be managed remotely from a browser-based console. Making configuration changes or moving or adding users-which with the old system typically required a time-consuming and expensive truck roll by third-party maintenance staff-can now be performed immediately from virtually anywhere.

ENHANCING PRODUCTIVITY AND PATIENT SERVICES

ShoreTel's unique approach to IP telephony has enhanced the efficiency and productivity of WNHHC's professional and administrative staffs. The flexibility and ease-of-use of the ShoreTel system provides WNHHC with a virtually unlimited number of ways to direct incoming phone calls and route them quickly to the right place.

"Phones are a necessary evil, but the ShoreTel system makes it so much easier to get the most out of them," says Henderson. "To transfer a call, you just type in the first few letters of a name and the extension pops up and you click and you're done. I can't emphasize enough how easy it is.

"On the day we went live with the ShoreTel VoIP system, we sat the operator down, and with very little training at all, she was able to handle more than 1,300 calls that first day. Our old system would have maxed out at 800 to 900 calls."

But the patients are the main beneficiaries. WNHHC's patient population is skewed toward the elderly, and communication is a key component of their care. With intelligent call routing that makes use of presence-sensing capabilities and calendar integration, the ShoreTel system ensures that patients get connected quickly and painlessly to the right healthcare professionals, wherever they happen to be at the moment.

"We pride ourselves on using leading-edge technology to provide our patients with better health care services," explains Henderson. "The ShoreTel solution, while being very easy to manage, provides advanced capabilities that make our staff more productive and allow us to improve the patient experience."

Similarly, incoming calls can be automatically routed to an answering service or other alternative on certain days and during certain hours. This call-flow automation eliminates labor and reduces the potential for operator error. And liability concerns are addressed by call-history logs that record incoming calls from patients and document whether and when a return call was made.

GETTING MORE FOR LESS

The ShoreTel system's ease of use and management minimizes training and ongoing support overhead, making it a lot less expensive to operate and maintain than other voice platforms-both IP-based and traditional.

While WNHHC's total return on its ShoreTel VoIP investment is hard to quantify, there are a lot of very obvious hard and soft savings. Annual phone system expenses went down about 16% while the staff size increased by about 20% and call volume went up about 50%.

Part of the savings comes from the elimination of truck rolls required by hardware-based management and maintenance. And interoffice calls now ride across the data WAN, bypassing carrier tolls. Also, while the ShoreTel system is handling a higher volume of calls than ever, it does so much more efficiently. Two backup operator positions could be eliminated, enabling a significant reallocation of resources.

Looking forward, the capacity, scalability, and flexibility of the system easily accommodates WNHHC's continuing growth and changing needs. A new 10,000-square-foot facility in Woodlands is under construction and scheduled to open in September 2005, and the satellite office is moving to a new location.

"We know first-hand that the ShoreTel system is easy to install and use, and can be implemented without interrupting our business," sums up Henderson. "It lets you move into a converged future with confidence."

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