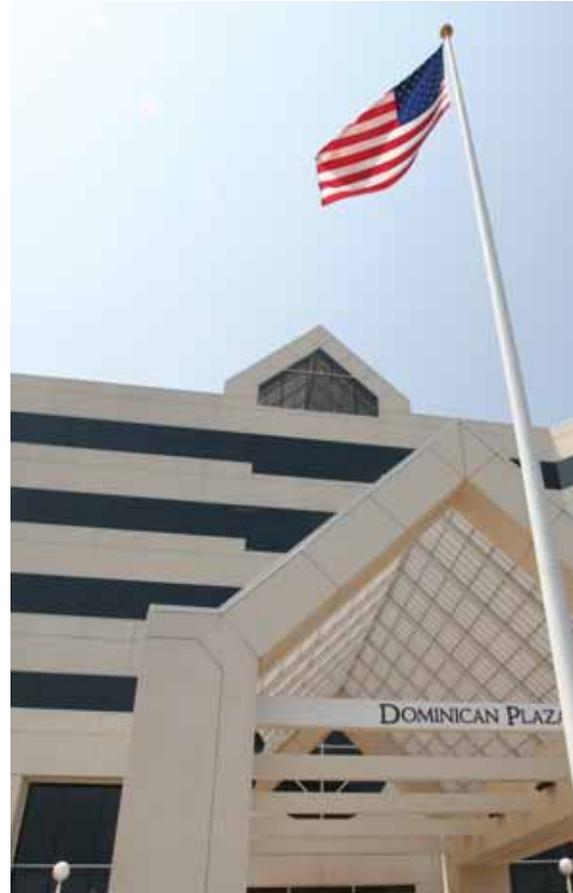


Rehabilitation Center Goes Hands-Free

A local systems integrator outfits the new St. Dominic's Rehabilitation Outpatient Center North in Jackson, Miss., with an internal IP-based intercom system that allows personnel to communicate without the use of handsets. The installation highlights the growing opportunity for capturing new revenue in the health-care industry.



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AT A GLANCE

- TOA Electronics' N-8000 Series intercom system selected to meet communications needs of a team of rehabilitation therapists
- The IP-based intercom solution requires minimal network bandwidth and can be controlled and monitored via a Web browser
- Health-care installations often require precautionary measures, such as preventing contamination in a sterile environment
- Before pursuing health-care industry clients, systems integrators should be familiar with industry regulations

Even before the completion of St. Dominic's Rehabilitation Outpatient Center North in Jackson, Miss., Maureen Hardy knew she had a problem. As a provider of hand and upper-extremity rehabilitation services, the center would have different communications concerns from its parent facility across the street, St. Dominic-Jackson Memorial Hospital.

"We don't receive the same type of overhead information, such as fire or code 99s," says Hardy, who serves as director of outpatient rehabilitation.

Nor would they need to page physicians across the street, since the center's staff was to be composed primarily of hand, occupational and physical therapists.

"So we needed our own internal system here just to be able to communicate with our therapists on the floor," she says.

The outpatient center turned to local systems integrator Sound and Communications Inc. to provide a solution that would meet its individual needs.

What follows is an overview of the installation, plus details of the particularities systems integrators contend with that are unique to the health-care industry. The information will provide insight on how best to prepare for and approach potential clients in this burgeoning market.

IP-Based Intercom System Allows for Fast, Easy Installation

To provide for the special communications requirements of St. Dominic's therapy staff, Sound and Communications Inc. recommended the center to install a TOA Electronics N-8000 Series hands-free intercom system.

As a total project, including running Category-5 cable and preparatory work, the installation took approximately one week, says technician Stephen Edmonds. The installation of the system hardware itself, Edmonds says, only took two eight-hour days.

Supported by two N-8000EX IP exchange units, 21 master stations are located in physical therapy treatment rooms, laboratories, office spaces and by the center's therapy pool. Most are mounted on wall brackets.

Edmonds first began by laying down cable from the various intercom station locations to two central points, where the exchange units would be mounted.

Once that was completed, he installed a master station at one end of the cable and the exchange at the other end. All that was left after that was plugging it into AC power and programming the system. The center was ready to treat patients almost immediately after the installation crew completed its work.



System Reduces Wiring Without Compromising Features

The IP-based intercom products occupy minimal network bandwidth (130kbps maximum) for station-to-station calls and can be controlled and monitored through software or a Web browser.

The system permits hands-free duplex communication, meaning that conversations between two stations can occur without the use of handsets.

An advantage is the system's unique wiring requirements, which enable ease of installation, says Edmonds. "Some less advanced intercom systems may have 15-20 pairs of wires connecting a station to the central unit." The N-8000 system requires only a single pair of wires to connect any one master station to the central wiring cabinet, making it highly sophisticated, he says.

Though more expensive than a basic common-talk communications system (the price of this particular installation ran upwards of \$20,000), the center was able to make up some of the difference by saving on cabling and infrastructure costs.

Even with less wiring, the system offers an impressive array of tasks that are performed digitally via the proces-



A staff member at the rehabilitation center demonstrates the facility's new intercom system. Use of the IP intercom products occupy minimal network bandwidth (130kbps maximum) for station-to-station calls and can be controlled and monitored through software or a Web browser.

sor. Programmable system functions offer 160 paging zones, time-based call forwarding and scan monitoring.

Not all the features, however, were welcomed by the center's staff, and less than a month passed before the center was forced to make its first service call.

"The all-call feature rang in every treatment room," Hardy says. "We try to maintain a calming influence for our patients and didn't want so many interruptions coming into the treatment rooms."

A Sound and Communications' service crew responded promptly and disabled the system's all-call feature in certain rooms.

Other than the single service call, the center has not experienced any issues with the new intercom system. "We're happy with the system," Hardy says. "The sound is very clear and the system is easy to use." The clarity is facilitated by the system's "echo cancellation" feature, which consists of a circuit that prevents acoustic feedback when the voice output from the station's internal speaker enters the microphone.

Expect Some Homework When Seeking Work in Health-Care Field

For systems integrators uncertain about how to even begin looking for opportunities to provide services to health-care professionals, St. Dominic's Rehabilitation Outpatient Center's Hardy has some straightforward advice.

Before any health-care facility is constructed or undertakes a new project involving the purchase of new equipment or expansion or elimination of services, they are required by law to obtain a Certificate of Need (CON). Before a CON is granted, the facility must complete and submit a letter of intent (LOI), which details the specifics of the facility's proposal. Usually a state's department of health will provide public notice of an LOI by placing a legal advertisement in local newspapers. "They [integrators] can watch for CON approval and



The hands-free intercom system at St. Dominic's Rehabilitation Outpatient Center North is supported by two N-8000EX IP exchange units by TOA Electronics Inc. of South San Francisco. The center is outfitted with 21 master stations located in physical therapy treatment rooms, laboratories, office spaces and by the facility's pool.

REHAB CENTER INTERCOM INSTALLATION



Technician Stephen Edmonds of Sound and Communications Inc., above, says installation of the TOA Electronics intercom system at the rehabilitation center was completed in two eight-hour days.

know someone's planning to build a hospital," Hardy says.

Once contact is made, offering to provide Health Insurance Portability and Accountability Act (HIPAA) privacy training can increase an integrator's appeal to medical facilities on the market for an intercom system.

Enacted in 1996, HIPAA is designed to ensure health-care coverage to workers who lose or change their jobs. A provision added to HIPAA in 2003 regulates the use and disclosure of a patient's personal information. The rule is broad enough that it also regulates communications regarding patients within a health-care facility. Hospital staff, for example, must be careful in how they refer to patients when they are ushering them through the facility.

"We can't say, 'Mr. Jones is here.' That would violate the confidentiality rule," says Hardy. "We have to say, 'Your 10:30 patient is here.' It would be nice to have documentation proving that we received training from the intercom company about maintaining privacy while using the system."

Sound and Communications Co-Owner and President Algie Broome offers other words of advice for integrators scouting the health-care industry for points of entry. In the business of providing communications solutions for nearly 50 years, Broome knows the value of researching a potential client. "Find out who makes the key decisions," he says.

There are usually three players with varying degrees of clout in the purchase decision-making process, and knowing whom to pitch to can facilitate the sale by permitting an integrator to adapt its language to the concerns of the addressee, he says.

"In some organizations, the maintenance people have a large role in deciding what's going to be purchased," Broome says. "If it's a nurse call system, often the director of nursing will be involved very deeply. And then you will have the people holding the purse strings." ■