

# Greenville Hospital System University Medical Center Increases Security with MOTOTRBO™ and IP Site Connect



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- Shawn Reilly, Director of Security, Greenville Hospital System

With five locations spread throughout Greenville County, Greenville Hospital System University Medical Center’s (GHS) main campus had expanded beyond the capability of the security team’s analog two way-radios. In addition, security personnel in its five remote sites used cell phones which slowed response and lessened effective communications with the main campus, each other and Dispatch. MOTOTRBO two-way digital portable radios and IP Site Connect have closed the communication gaps, enabled a centralized emergency dispatch center and created a reliable, seamless communications system throughout the entire coverage area.

## Challenge: Multi-site hospital finds its analog radios unable to keep up

A large not-for-profit academic health organization, Greenville Hospital System University Medical Center (GHS) consists of five campuses that provide integrated healthcare to communities across the county. GHS’ vision is not only to transform healthcare for the communities it serves, but to ensure the safety and security of its patients, more than 1,200 affiliated staff physicians and nearly 10,000 employees.

Security personnel located at GHS’ main campus used analog two-way radios to communicate. As the main facility expanded, the analog radios could no longer cover the entire facility. In addition, the radios could not reach into the tunnels and basement of the building or through some walls and floors.

“One of the primary challenges that motivated the move to digital was the need for coverage in the main hospital’s emergency room, which was located below the X-ray room,” says Shawn Reilly, director of security at GHS. “This was a concern to the GHS’ security team as the ER is a very busy place and the need for good radio communication is vital.”

The other campuses, located across the county’s nearly 800 square miles, were using cell phones to communicate. This created a secondary problem because the phones were both costly and slowed response. Seeking a solution that would enable effective communication between each of the remote sites and in any location throughout the main campus and its buildings, GHS contacted a local Motorola channel partner.

## Products

- MOTOTRBO XPR™ 6550 portable radios
- MOTOTRBO Control Station
  - MOTOTRBO XPR™ 4550 mobile radio
  - Desktop microphone
  - Speakers
  - Power supply with battery backup
- MOTOTRBO XPR™ 4550 mobile radio
- Desktop microphones
- Speakers
- Power supply with battery backup
- MOTOTRBO XPR™ 8300 repeater

## Benefits

- Multi-site coverage between hospital locations
- Improved coverage in buildings, including lower levels
- Increased security response
- Reduced operational expense



“Hospital environments can be challenging in and of themselves and adding to that challenge, this customer had multiple locations. With the MOTOTRBO digital portable radios and IP Site Connect, we were able to close the communications gap between the campuses, enable a centralized dispatch, and increase security throughout Greenville Hospital System.”

- Keith Pennington, Morris Communications, Inc.

“Analog radios often are hampered by trees, hills or steel structures, and are simply not equipped to reach down into basements and lower levels of buildings,” says Keith Pennington of Morris Communications. “The customer’s primary concern was to ensure that each security officer, regardless of location, could quickly and easily communicate with each other and with a centralized dispatch point in case of emergency.”

#### **Solution: MOTOTRBO digital portable radios for seamless communications**

Pennington recommended a MOTOTRBO digital radio system that included MOTOTRBO portable radios, repeaters and IP Site Connect software to meet the specific coverage and feature needs of GHS’ main campus and remote sites.

MOTOTRBO digital radios deliver better coverage, increased call capacity and crisp, clear audio performance. Other advantages include better call control and emergency response, extended battery life and integrated data applications for greater operational efficiency.

In a hospital campus setting, the presence of buildings, metal structures and even some hospital equipment can disrupt two-way radio communications, effectively cutting radio users off from other users. To ensure uninterrupted communications throughout Greenville Hospital System’s 130+ acres and six-story, 718,000 square foot medical center, as well as seamless connection between the other four sites, the channel partner installed Motorola’s IP Site Connect.

IP Site Connect removes the challenge of physical barriers and limited coverage and requires no manual intervention for roaming by the radio users, allowing security officers to communicate easily and reliably throughout the coverage area. Networking IP Site Connect through the hospital system’s existing IP network created continuous umbrella-like coverage throughout the entire coverage area.

“We also worked with Morris Communications to test the radios to make sure that they would not interfere with hospital equipment,” says Reilly. “We found that there was no impact on any of our systems.”

Completing the system, three MOTOTRBO repeaters were strategically located on the main campus, ensuring the security team of uninterrupted coverage and unrestricted mobility both inside and outside buildings and throughout the main campus. At the main campus, a centralized 100 watt repeater was installed using an external antenna system and two internal repeaters using dual inside antennas for diversity.

For dispatch, the channel partner installed a digital control station and an emergency power supply with battery back-up to create a powerful, compact and user-friendly desktop base station.

Rapid response to emergencies is a vital part of maintaining the safety of patients and staff. MOTOTRBO's integrated GPS module and location tracking application allow dispatchers to locate security personnel and quickly dispatch assistance to the scene. Also with emergency button feature, personnel can quickly be notified of an emergency.

#### Results: Improved security response

"The radios have worked great," says Reilly. "The remote speaker microphones and ear pieces have been a great way of keeping communication confidential even in a crowded environment. Morris Communication continues to be responsive to our service needs, even long after installation."

"The MOTOTRBOs were not only able to get full coverage into the ER, because of the three repeaters and IP Site Connect, but we also got coverage up to a five-mile radius outside the main campus," says Pennington.

Other benefits include:

- **Improved safety and security:** Access to reliable communications, regardless of location in the coverage area, enables security officers and dispatch personnel to communicate to and from at any site to speed response and to protect the safety and security of hospital patients, staff, and themselves.
- **Increased speed of response:** With MOTOTRBO radios, security personnel located in GHS' remote locations no longer rely on cell phones to call for backup or report an issue to dispatch. Today they can make that contact instantaneously with the touch of a button.
- **Improved audio performance:** Although hospitals are typically quiet, in some areas such as basement boiler rooms, near elevator machinery or on the delivery docks, noise can be a problem. MOTOTRBO radios deliver crisp, clear voice signals, eliminating background noise and ensuring that each message is received and understood.
- **Discreet communications:** In hospital quiet areas, MOTOTRBO's text messaging capability and audio headsets enable discreet communications without disturbing patients and staff.
- **Enhanced efficiency:** MOTOTRBO radios are equipped with an integrated GPS module and when combined with a location application, Dispatch can pinpoint exactly where the call originated from, identify which security officer made the call, and dispatch assistance quickly and efficiently.
- **Ease of use:** Because the main campus is so large, roaming between repeaters is required. IP Site Connect creates a continuous coverage area throughout the campus and enables roaming between sites without manual intervention or interruption.
- **Efficient call control:** Dispatch can communicate one-on-one with each radio user or send out an alert to all hands simultaneously.
- **Extended battery life:** MOTOTRBO batteries operate up to 40% longer between charges than typical analog two-way radios.
- **Meets Narrowbanding Mandate:** MOTOTRBO digital radios meet the FCC Narrowbanding mandate for 12.5 kHz. MOTOTRBO offers a seamless path to 12.5 kHz, allowing customers to transition at their own pace.



Motorola MOTOTRBO XPR Digital Radios





### About Morris Communications, Inc.

*With over 55 years of experience, Morris Communications, Inc. is one of the largest, privately-held, family-owned and operated communications companies in the Southeast. Morris Communications is proud of its record of "First in Communication Firsts" including the first to bring superior paging and two-way radio technology to South Carolina, North Carolina, Georgia and Tennessee.*

- **Reduced operational expense**

- Because the security teams at the remote sites no longer use cell phones to connect, GHS is saving hundreds of dollars per year in usage fees.
- MOTOTRBO digital portable radios enable two virtual channels within a single 12.5 KHz licensed repeater channel, providing twice the calling capacity and enabling twice the number of users for the price of one license.
- MOTOTRBO's advanced IMPRES™ battery charger technology monitors and automatically maintains the health of the battery fleet to maximize talk-time.

"Hospital environments can be challenging in and of themselves and adding to that challenge, this customer had multiple locations," says Pennington. "With the MOTOTRBO digital portable radios and IP Site Connect, we were able to close the communications gap between the campuses, enable a centralized dispatch, and increase security throughout the hospital system."

**To learn more about MOTOTRBO visit  
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