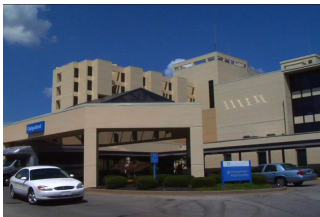# West Tennessee Healthcare

Jackson, Tennessee

West Tennessee Healthcare (WTH) needed a two-way solution that would ensure exceptionally clear and efficient communications to all parts of the property. They had an aging analog system in place, and they wanted to be sure that in the days to come, they'd be well positioned to migrate the whole system seamlessly to digital.

A Communications System in Need of Care

The 50-acre WTH campus is scheduled to expand by more than 20 acres to meet the growing need for healthcare services in the area. As the facility spreads out over the property, the communications system must grow with it; the existing analog system was simply not up to the challenge of accommodating users who needed new applications to do their jobs with greater efficiency.

Currently, there are 40 structures on campus, including 13 multi-story buildings. One of the bigger buildings is the Jackson-Madison County General Hospital, which had a communications system based on seven analog repeaters, serving 350 portable radios across the property. The security department had a number of older radios that needed replacement, and those in charge had some very specific requirements for the new system.

Those requirements were articulated by James E. Ross, Vice President of WTH, who explained "there were two very important things that we needed to consider. One, we needed something that would be expandable; two, we needed the ability to send and receive private messages."

West Tennessee Healthcare: MOTOTRBO Deployment At-A-Glance

Motorola User:
West Tennessee Healthcare

Project Location:
Jackson, Tennessee

Applications:
Talk groups, emergency signaling, text messaging

Website:
http://www.wth.net/

Diagnosis, Demonstration and Deployment

The most efficient way to introduce MOTOTRBO to WTH was to diagnose their needs and arrange a demonstration of MOTOTRBO's ability to meet those needs.

According to Eddie Wood, Security Coordinator for WTH, the demonstration could not have gone better. "I put it in my guys' hands," said Wood, "and we tried it out all over the hospital, including the basement, tunnels, places where we've had poor reception in the past. We have some huge generators in equipment rooms and we put guys in between those, and we got clear reception everywhere we went with it." With the digital difference, MOTOTRBO provides much clearer audio quality than is possible with analog, especially in fringe coverage areas.

Once MOTOTRBO was selected, migration was very simple. MOTOTRBO supports dual mode analog and digital operations to enable backwards communication with analog radios already in place. In this way, WTH could buy a few MOTOTRBO radios and use them in the analog mode; then, over time and as budget allowed, they could start migrating a few radios at a time to digital. As part of the initial deployment, the analog repeater was removed and replaced with a MOTOTRBO digital repeater. The MOTOTRBO system blended perfectly with an existing combiner and bidirectional amplifier.

"After we got done testing the demo," Wood explains, "I got to talking to the guys, and they didn't want to give up their MOTOTRBO radios. They loved the product; they asked, "Do we have to give them back?" That was all WTH needed to know; MOTOTRBO was the right radio system for them.

Prescription for Expandable, Secure Communications

MOTOTRBO is a forward-compatible platform, and investing in MOTOTRBO is an excellent way to lay a foundation for future growth. Ross explains that "MOTOTRBO has enhanced our communications capability by adding more frequencies without our having to increase our licenses."

MOTOTRBO is able to double the capacity of the existing radio system at WTH, replacing analog repeaters with MOTOTRBO repeaters while continuing to use existing frequencies. Using TDMA technology, MOTOTRBO delivers two times the previous analog capacity without changing the FCC-allocated frequency; this extra capacity can be used for more voice traffic, dedicated data traffic or a combination of both. TDMA enables WTH to utilize the licensed frequency while taking advantage of an extra timeslot for sophisticated, value-added functionality, without causing any additional interference.

Having clear communications ensures security for everyone and despite the increase in capacity made possible through MOTOTRBO, there was no decrease in communications quality. Digital signal are inherently clearer than analog signals, and noise suppression technology makes MOTOTRBO audio even crisper and sharper. When he first tried the radio, Ross explains "I was able to make a crystal clear connection with our central control dispatch"; there was just no comparison between the scratchiness of old analog radios and the incredible clarity of MOTOTRBO.

Clear communications support the safety and security of everyone on campus, and MOTOTRBO has additional features that provide an extra measure of safety assurance for security personnel. "One of the main concerns I had," explains Wood, "was for the safety of my officers, and this system has emergency signaling that lets me know which officer is down so everyone can respond to it." Wood is also excited about text messaging and battery life.

Text messaging enables any phone or computer to send an email to a MOTOTRBO host server application, which then forwards the text message to designated MOTOTRBO subscriber units, supporting tighter, more coordinated communications management.

MOTOTRBO and all digital radios provide improved battery life. WTH personnel reportedly receive up to 18 hours of operation after quick-charging a standard nickel metal hydride battery, much more than is available with many analog radios. Because digital systems use batteries more efficiently than analog systems, talk-time is extended, so personnel spend less time returning to base to recharge their units or pick up fresh batteries.

MOTOTRBO – Restoring Health to Aging Communications Systems

Designed to facilitate quick and easy migration, and to be used in even mixed analog and digital environments, MOTOTRBO's digital technology enables it to adapt to a number of different work environments, seamlessly supporting industry-specific applications, and it has proven to be an exceptionally productive communications tool. In addition to the applications deployed by West Tennessee Healthcare, the digital platform can support location tracking via built-in GPS so that the location of field units is displayed on the dispatcher's computer screen for more efficient operations and tighter asset management. GPS-based Location Services is just one of MOTOTRBO's continuing series of remarkable applications – made possible through digital technology – that extend the power of MOTOTRBO, enabling it to be customized to work at maximum efficiency in any environment, in any industry.

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