

A conversation with
M.J. Ernie McKinley, CIO
University Medical Center of
Southern Nevada (UMCSN),
Las Vegas, NV



24/7/365 Wi-Fi availability?

Facility-wide WLAN demands of CareFusion Pyxis' point-of-care specimen collection solution prove challenging.

? You made the decision to deploy Wi-Fi utilizing the InnerWireless DAS, why?

University Medical Center of Southern Nevada's (UMCSN) deployment of a broadband DAS provided the IT staff with the opportunity to take a fresh look at the best way to deliver facility-wide Wi-Fi. Since the initial WLAN deployment in 2001, Wi-Fi utilization had increased dramatically as well as the support required by the IT staff.

Another reason to re-evaluate the previous WLAN was the plan to implement CareFusion Pyxis' point-of-care specimen collection system. Since this new solution had enormous potential in terms of patient safety and staff efficiency, we would require 24/7/365 Wi-Fi availability, something we had yet to achieve.

? In addition to guaranteed wireless coverage, what were some of the other benefits of this new approach?

UMCSN decided to standardize on InnerWireless because they could provide guaranteed coverage and signal strength for Wi-Fi clients, from voice to data/video tablets and medical devices.

In contrast to a conventional Wi-Fi deployment where RF channels are utilized to minimize co-channel interference, the InnerWireless DAS utilizes these channels to segregate/assign WLAN traffic. Traffic management provides a systematic approach for proactively managing capacity.

For example, our CareFusion solution is isolated from other WLAN traffic via a dedicated RF channel – providing the

About UMCSN, Las Vegas:

- Largest facility in Nevada serving over 10,000 square miles
- Only Level 1 Trauma Center, with the largest ER in Nevada
- 4,000 employees and 1,500 physicians
- 544 licensed beds
- 8 buildings with over 850,000 square feet

Biggest advantage:

CareFusion's certification team concluded that the DAS helped UMCSN achieve the best wireless coverage and most consistent signal strength of any hospital they had certified.

service quality needed for a mission-critical application. Other benefits of WLAN traffic management are separate RF channels for latency sensitive applications such as VoIP and life-critical medical device applications such as patient monitoring and smart pumps.

? Has the InnerWireless solution delivered on its performance claims?

From day one, the DAS met or exceeded the minimum signal strength guaranteed to us by InnerWireless, and unlike our previous Wi-Fi deployment, we didn't experience coverage gaps or dropped sessions. In fact, CareFusion's certification team

concluded that the DAS helped UMCSN achieve the best wireless coverage and most consistent signal strength of any hospital they had certified. They confirmed that the CareFusion Wi-Fi devices could be taken anywhere in our campus without ever losing connectivity.

Plus, our high availability WLAN solution has driven new levels of wireless reliability, resulting in a dramatic drop in wireless-related help desk calls. Despite being operational for over a year, we have received only one such wireless help desk call. We also have realized a 70-percent reduction in IT man-hours spent on wireless infrastructure support, which enables IT resources to focus on creating value by investigating new solutions that can help clinicians care for patients.

? What's the future?

Our use of the wireless network has grown significantly since deploying the InnerWireless DAS wireless platform. Mobile clinicians across the organization have experienced what it can do and they trust it. We have already adopted more than a dozen new wireless applications. Despite the number of applications running on our new WLAN deployment, we estimate that we are only utilizing 20 percent of our available capacity, which is due largely to WLAN capacity improvements enabled by the InnerWireless solution.

University Medical Center of Southern Nevada (UMCSN) is the state's largest hospital and only Level I Trauma Center, with a service area covering 10,000 square miles.

