

UMC Las Vegas achieves high-availability and lower operating costs with new WLAN deployment model

LAS VEGAS, NV- University Medical Center of Southern Nevada (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 micro-cellular 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,” said Ernie McKinley, CIO. This would be used across the medical center’s 8-buildings comprising 850,000 square feet and routinely utilized by over 1,500 personnel from nursing to respiratory care.

“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.”



“UMCSN decided to standardize on InnerWireless and Enterasys, to help us implement an innovative Wi-Fi strategy that would meet our current needs plus pave the way for implementing our vision of mobile patient care.”

In addition to delivering ‘mobile services’, the InnerWireless Horizon4G DAS has the unique capability to deliver 802.11 a/b/g/n with MIMO.



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James McCoy,
CTO and senior vice president, InnerWireless

Physically, Wi-Fi access points are located in ceiling cabinets and connected to the DAS via passive coax and utilize the remote, multiple broadband DAS antennas to provide coverage. Coupled with a rigorous RF design process, InnerWireless provides guaranteed coverage and signal strength for Wi-Fi clients, from voice and data/video tablets to medical devices.

For example many enterprise customers today are interested in using Apple’s iPad. According to James McCoy, InnerWireless’ CTO and senior vice president, to ensure optimum performance, the iPad tablets require a high signal level and seamless coverage, attributes a properly RF designed DAS provides.

In addition, “utilizing a DAS to deliver Wi-Fi services can also address important network performance considerations not possible with micro-cellular Wi-Fi deployments”, McCoy said. In contrast to a conventional micro-cellular deployment wherein 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 and providing SLA(s) required for different client types.

For example, UMCSN’s CareFusion’ solution is isolated from other WLAN traffic via a dedicated RF channel – providing the 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.

“WLAN traffic management can also provide important benefits to the IT department.” McCoy said. Like client traffic separation, different Wi-Fi protocols can be RF isolated and delivered concurrently. “New protocols, like .11n, can be added to the DAS and operated as ‘Greenfield’ while ensuring continued support for legacy Wi-Fi clients” McCoy said.



“Our high availability WLAN solution has also driven new levels of wireless reliability, resulting in a dramatic drop in wireless related help desk calls,” McKinley said. “Despite being operational for over a year, we have received only one such wireless help desk call...plus a 70% reduction in man hours to support our wireless infrastructure.”

About InnerWireless



InnerWireless enables enterprise-grade wireless for customers in healthcare, government, hospitality and Fortune 500 markets. As a partner, our customers value the in-building delivery of wireless services for powering 3G/4G smartphones, fire/life/safety, two-way radios, Wi-Fi and medical telemetry over a time-tested, scalable broadband Distributed Antenna System (DAS) called Horizon4G Wireless Enterprise™. But partnering with InnerWireless means more - on-time delivery, 100 percent first-time design acceptance, guaranteed coverage and engineered capacity. Plus, lifecycle services such as interoperability testing and around-the-clock monitoring ensure flawless wireless performance. InnerWireless, the preferred DAS partner of CIOs nationwide