

Florida Hospital Delivers Cellular Connectivity Over Hospital's Existing LAN

BACKGROUND

As the largest non-profit healthcare system in the United States, Florida Hospital encompasses over 6,000,000 square feet of medical facilities, and manages 2,000 patient beds. Like all hospitals, Florida Hospital was challenged to find a cost-effective infrastructure solution for their mid-sized Kissimmee building, which lacked connectivity for Verizon wireless services due to dense construction that prevented signals from entering the building. With employees increasingly dependent on their mobile devices for everything from real-time access to lab results to physician consults on the go, in-building coverage was a necessity.

CHALLENGE

By 2010, physicians were complaining about the lack of Verizon cellular and data coverage in a 150,000 square foot facility on the Kissimmee campus. With limited-to-no coverage, staff members were unable to depend on company sponsored mobile devices to perform their jobs and began to use personal devices from other operators. The IT team realized that an in-building coverage infrastructure would be needed to boost productivity and ensure hospital stakeholders were satisfied with the corporate service plan.

Initially, the Kissimmee building was considered too small to justify the deployment of a full scale fiber/coax based Distributed Antenna System (DAS). DAS installations typically require wall and ceiling penetration, costly new cabling

dedicated to cellular delivery, and this necessitates infection control procedures in hospitals. Administrators could not afford to shut down the building for a long installation timeframe and the IT department could not incur the additional costs associated with such a deployment.

Lastly, it was important that Florida Hospital invest in a flexible infrastructure that would enable adoption of the emerging services in the future.

SOLUTION

Upon recommendation by Presidio Network Solutions, a services company dedicated to designing and building complex data and voice infrastructure systems, Florida Hospital executives chose to deploy MobileAccessVE: the first cellular-over-LAN in-building coverage solution.

The MobileAccessVE deployment resulted in an immediate improvement in Verizon coverage. Now physicians enjoy five-bar coverage for Verizon on their corporate smart phones. The innovative MobileAccessVE solution cost-effectively distributes Verizon's cellular voice and data signals throughout the Kissimmee facility over the building's pre-existing CAT-5e Ethernet cabling, without impacting wired and wireless LAN traffic or consuming LAN capacity. By co-existing alongside the LAN, VE reduced overall costs and kept new cabling requirements to a minimum. The deployment was nondisruptive to hospital operations by avoiding new cabling projects, which also shrunk the installation timeline by months.

THE COMPANY

As the largest non-profit healthcare system in the United States, 16,000 employees work at Florida Hospital, which operates across 8 medical campuses.

CHALLENGES

- ▶ Deliver Verizon CELL/PCS connectivity for physician and staff smart phones
- ▶ Provide cost-effective single-operator coverage in a 150,000 square foot building
- ▶ Avoiding costly and time-consuming new cabling projects that require penetration of ceilings and walls

BENEFITS

- ▶ Avoids new cabling projects by using existing Ethernet cabling without impacting the LAN
- ▶ Reduces the installation timeframe to days instead of months
- ▶ Lowers coverage costs by 50% as compared to conventional solutions



BOTTOM LINE

By co-existing alongside the LAN, the VE infrastructure reduced deployment costs by keeping cabling requirements to a minimum. Today, this flexible approach delivers reliable, in-building cellular coverage while minimizing the disruption and costs associated with new cabling projects and reducing downtime.

From a Wi-Fi integration standpoint, VE is a Cisco Solutions Plus product and has achieved the highest level of certification for interoperability with Cisco Wi-Fi equipment. Cisco's 802.11n Access Points can be placed on the end of VE Access Pods (cellular antenna) where needed, because VE equipment allows Power-over-Ethernet and LAN signals required by Wi-Fi to pass through unaffected.

The VE solution works with any operator signal source and was thus able to minimize Verizon's investment by leveraging a low cost repeater as the system's signal source. By enabling a repeater-fed infrastructure, MobileAccessVE saved Verizon thousands of dollars as compared to a more costly Base Transceiver Station (BTS) alternative.

The VE solution also simplifies ongoing maintenance with an advanced management system that actively monitors the infrastructure from end-to-end. The hospital does not require wireless experts or extra staffing in order to manage the solution or troubleshoot. In addition, future services can be added anytime over the existing standard LAN cabling.

"...By sharing cellular services with Ethernet services on existing CAT-5/6 cabling, Florida Hospital can deploy a very low cost solution to ensure reliable in-building wireless."

Todd Frantz
Associate Chief Technology Officer,
Florida Hospital



About MobileAccess

MobileAccess Networks is an enterprise wireless innovator that provides a universal platform for connecting the people and applications that drive business. The company's intelligent, in-building infrastructure solution is the key to mainstream wireless connectivity in hospitals, office buildings, public venues and other large-scale facilities. The MobileAccess Universal Wireless Network delivers business-quality performance, scalability, security and signal reliability to thousands of customers worldwide. For more information, visit www.mobileaccess.com