

A conversation
with Greg Johnson, CTO
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VCU Health System



Could wireless IT Help Desk calls be history?

VCU Health System is meeting clinician demand for enterprise mobile connectivity through 4G-capable ubiquitous wireless.

? Today, IT Help Desks are kept busy with wireless connectivity calls from frustrated clinicians.

How have you managed to virtually eliminate these calls?

"Heavily dependent" on technology and mobile devices, Virginia Commonwealth University (VCU) Health System needed an enterprise-grade wireless solution that would enable every aspect of mHealth. We chose to standardize on the Black Box Network Services' (BBNS) distributed antenna system (DAS) and WLAN solutions because they were the only vendor that could meet the medical center's requirements for delivering all wireless services, from Wi-Fi and medical telemetry to 4G, with unsurpassed performance across facilities.

VCU Health System's deployment of BBNS' solutions in our new state-of-the-art critical care tower kicked off a retrofit of the rest of the campus in order to provide the same high-quality service levels and ubiquitous wireless throughout the organization.

? Why was comprehensive wireless so critical to your IT strategy?

The next phase of VCU Health System's wireless strategy is to meet clinicians' demand for device independence. We want to support clinicians' desire for complete access of all clinical systems via the device of their choice, be it a 4G smartphone or tablet, by using a virtual desktop application to enable wireless connection to the VCU network. The new performance capabilities of 4G cellular will enable clinicians to video conference with mobile devices and access patient information throughout the delivery network.

About VCU:

- Over 700 smart phones; soon to be over 1500
- 125 two-way radios
- 100,000+ sq. ft. of Philips® IntelliVue™ medical telemetry
- 600 Ascom VoIP handsets
- 240 Vocera® VoIP pendants
- Over 850 COWS (mobile computers on wheels), plus almost 1800 laptops/other mobile devices
- Philips Emergin™ alarm management and automated event notification

Biggest advantage:

We have had virtually no issues (with wireless service reliability) since implementing Black Box Network Services' solutions.

In anticipation of new 4G carrier services, BBNS refined its high level of systems engineering and integration required for 4G-capable DAS implementations, which VCU Health System valued.

? How did BBNS help make the promise of ubiquitous wireless your new reality?

As a solutions-systems integrator BBNS understands both the customer needs as well as the in-building requirements for delivering cellular services. Although VCU Health System had wireless engineers on staff, it relied on BBNS' deep domain expertise of in-building wireless design and deployment.

BBNS' professional services organization helped us plan and deploy the network. They conducted a comprehensive assessment of the new hospital, enabling us to better understand how RF signals propagate; room-to-room, floor-to-floor and across the entire building. Wireless was engineered and deployed to address the unique requirements for each wireless service, device and application. In addition, their unique Wi-Fi deployment enabled us to "traffic manage" our WLAN clients – from VoIP handsets to mobile computers – minimizing data contention and optimizing network throughput and performance.

? How would you measure the overall impact wireless has had on the delivery of care at VCU?

Of the roughly 1 million square feet of wireless capability at the campus, the new hospital represents approximately one third. We have had virtually no wireless issues. The rest of the VCU Medical Center campus operates on conventional wireless systems and is encumbered with gaps in service. Staff immediately notice the differences in service quality when they leave the new hospital.

We need to have an infrastructure that supports our wireless demand. It's no longer a luxury, but a requirement for quality patient care.

The Virginia Commonwealth University (VCU) Medical Center is one of the nation's leading academic medical centers and is among only 200 or so healthcare organizations worldwide that have been awarded Magnet status for nursing excellence in national and international health care.

Black Box (NASDAQ: BBOX) is leading communications systems integrator dedicated to designing, sourcing, implementing and maintaining today's complex communications solutions. Black Box services more than 175,000 clients in approximately 150 countries with approximately 200 offices throughout the world.