



# Wireless in hospitals: One organization's 802.11n wireless LAN

Wireless networks can be daunting to roll out, especially around the issue of security. In the healthcare space, there is an increasing need for Wireless networks but data privacy is a large concern. This article details how one hospital made the transition to 802.11n wireless LAN in their organization, including advantages and challenges.

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## Wireless in Hospitals: One Organization's 802.11n Wireless LAN

Riverside Health Care Systems, an operator of several hospitals in Westchester County, N.Y., chose a decentralized, controller-less wireless LAN to modernize its network, according to senior network administrator Niall Pariag. The hospital chain also wanted to enable a guest network to provide its patients with unfettered connectivity.

"We made the choice to open up the guest network because it was becoming too much of a hassle for us to give out a wireless key to patients, and we no longer had 24-hour staffing by IT," Pariag said. "If someone wanted to connect to the wireless overnight, they had to wait until morning."

Riverside had a variety of goals for the wireless network beyond the guest network, he said. To satisfy requirements for quality of patient care, the network had to be highly reliable. It needed to enable bedside services such as registration, documentation and drug administration. The network also needed to support an enterprise network for administrative connectivity.

And to prepare for the future, Pariag wanted to design the network to support new applications, particularly a Vocera-based wireless voice communications system and an RFID tagging system for both equipment and patients. The network also needed to be easily manageable because Riverside's IT staff is small and Pariag would be running it mostly on his own.

He selected 802.11n products from Aerohive Networks primarily for the vendor's controller-less architecture. Aerohive's access points, known as HiveAPs, have on-board software that allows them to cooperate with one another and perform collectively many of the tasks performed by the controllers sold by other wireless LAN vendors. Pariag didn't want to use a controller-based architecture because he felt controllers presented a single point of failure. Even with redundant controllers in place, he anticipated that there would still be downtime during failover.

Riverside's guest wireless LAN network is firewalled from the corporate network. Anyone can connect to it after accepting a terms of use and policy agreement. Patients aren't the only ones using the guest network, however, and this has forced the hospital administration to rethink its usage policies.

"I've noticed a significant amount of use of the guest network by our staff," Pariag said. "I didn't expect everyone to connect with their iPhones to check [personal] email. We're going to create a usage policy for staff. We just want to make sure people don't abuse it. You can't be using it during work time. That takes away from production."



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## **SOME FEARS CAN'T BE EXPLAINED. OTHERS ARE PERFECTLY REASONABLE.**

Each time you add an access point in a controller-based WLAN environment, you can become subject to the "controller tax" – that extra charge you didn't factor into adding more APs for coverage or mission-critical apps like voice. And one fateful day you'll add one too many APs and you'll have to foot the bill for a whole new controller – two, if you want redundancy. Kind of makes you nervous just thinking about it, really.

## **WANT A BETTER WAY TO BUILD A WIRELESS NETWORK? ELIMINATE THE CONTROLLER.**

Aerohive's controller-less WLAN architecture provides an innovative alternative to costly and complex controller-based solutions. Aerohive access points organize themselves into groups, or "hives," that

cooperate to share information, enabling functions like fast layer 2/layer 3 roaming, coordinated RF management, security, and mesh networking, all without the bottlenecks posed by controllers. There is no need to add expensive controllers at every location, because the APs share the information they need. There is no need to engage in controller capacity planning, because you can simply add APs when and where they're needed. So you not only save money, but your WLAN is ready for mission-critical apps like voice-over-WLAN. No controller means you have total control. And that means you have nothing to fear.

Learn more about the economic benefits of Aerohive's unique approach. Download the whitepaper at [www.aerohive.com/economics](http://www.aerohive.com/economics).



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[The Network Impact of 802.11n](#)

[Aerohive Product Overview: The Benefits of a Controller-less WLAN Architecture](#)

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### About Aerohive Networks

Aerohive Networks, the leader in next-generation enterprise wireless LANs, unleashes the potential of enterprise Wi-Fi, enabling customers to stop buying copper, to move applications to the air, and to maximize workforce productivity. The company's award-winning cooperative control architecture eliminates costly controllers, saving money and providing unprecedented resiliency, up to 10X better application performance, and an opportunity to start small and expand without limitations.