

AirCheck is on call at Providence hospital making wireless problems fast and simple to diagnose.

At a Glance

Customer:

Providence Sacred Heart Medical Center and Children's Hospital

Industry:

Healthcare

Location:

Spokane, Washington

Network type:

Wired/Wireless Ethernet LAN

Challenge:

Managing 1650 clients across 300 access points and keeping everyone connected and productive

Results:

In less than 5 minutes, the hardware team completes troubleshooting that would take up to 45 minutes with a laptop. With just one incident per day, the AirCheck tester will pay for itself in a few months.

Products:

AirCheck™ Wi-Fi Tester

Overview

With 644 beds and more than 4,000 health care professionals on staff, Providence Sacred Heart Medical Center & Children's Hospital in Spokane Washington is one the largest hospitals in the Northwest. It's also one of the most "wired." For the ninth year in a row, Providence has been recognized as one of the nation's "100 most wired Hospitals!" attesting to its use of information technology to improve quality, customer service, public health and safety, and business processes.

The IT responsibilities at Providence are split across a number of teams. Lee Sorenson, Computer Technician III, is part of the team that's responsible for the installation and maintenance of all medical and computer hardware supporting the entire enterprise. This includes the Cisco wireless network serving 1650 clients across 300 access points, distributed over the 15 floors of the main hospital, as well as adjacent buildings devoted to outpatient care. More than 1000 laptops are devoted to patient care. An individual laptop is assigned to each patient to track patient ID wristbands, medications, supplies, equipment and treatment information.

Wireless LANs are especially well suited to hospitals. Patients and the staff are constantly moving, and a wireless network can follow them around. Wi-Fi phones are useful for fast communications among staff, and guests in the hospital often want wireless Internet access. Unfortunately, hospitals are also challenging environments for wireless LANs. For example, Radiology and Nuclear Medicine departments have specialized shielding that can completely block wireless signals. (Providence has solved this type of problem with individual access points in each room.) And given the requirements for patient privacy, not to mention the hundreds of guests that visit each day, wireless networks must be highly secured.

After nearly a decade of experience with their wireless network, Providence IT has ironed out most of the issues inside the hospital, but still experiences interference issues from outside. Located on the side of a hill near downtown Spokane, their wireless network is affected by wireless security cameras and wireless transmitters from other business spaces, or home wireless systems that operate on the same frequencies. Now, however, Lee can use Fluke Network's AirCheck™ Wi-Fi Tester to troubleshoot interference and connectivity complaints. At least once a day, Lee's team gets a complaint from staff members who say they can't connect in a certain area. "I just run up there, turn on AirCheck and in about 30 seconds I can see whether the problem is with the WLAN or not."



Handheld and rugged, AirCheck is designed for dispatched Wi-Fi troubleshooting

"AirCheck is the kind of tool you can easily hand over to multiple people. I can break it out and show the team in ten minutes how to use it and they can run with it."

– Lee Sorenson
Computer Technician III





AirCheck's intuitive design simplifies wireless troubleshooting



Lee uses Aircheck to quickly verify network coverage within the hospital

"AirCheck is small and easy to carry around. It's very easy and fast to use compared to other test tools. I just turn it on and go directly to the information I need. It's slick."

"The other day I used it to set up four new access points. I could ping them remotely and make sure they were working properly. Then I got a complaint from a user who couldn't connect. I grabbed the AirCheck, went through the four access points and everything was perfect. In about two minutes, I knew it was a laptop configuration problem. If I had to use another more complex tool, it would have taken me about ½ hour, or with my laptop software about 45 minutes. With AirCheck, I can see what I need with one touch."

"On my laptop, AirCheck Manager software comes up fast and easily interfaces to the AirCheck via USB. It doesn't bog down my computer or hog much space, yet it shows me everything I need."

Lee also recently used the AirCheck to solve a connection problem in a surgery recovery area when staff brought in laptops from an outside area and could not connect. "There are two access points covering this area, one configured for 802.11g at one end and one for 802.11a at the opposite end. The user moved a client that was configured for 802.11g from its home position to a position that was covered only by the 802.11a access point." Lee explains. "I simply turned on the AirCheck which told me the configuration of the access point that the client was trying to communicate with. Once I saw that the access point was 802.11a I re-configured the client to match the access point and then we had connectivity and application access. What could have taken a lot of trial and error was solved in less than 10 minutes."

"Every time I troubleshoot a connection complaint, I can immediately cut the problem in half by determining whether the problem is with the network or with the client's laptop configuration."

"AirCheck is the kind of tool you can easily hand over to multiple people. At our weekly team meeting we often share what's new. I can break it out and show them in ten minutes how to use it and they can run with it."

Lee knows he can count on Fluke Networks for solutions that help him do his job. "They listen, understand my site and what I need. All the help and support online and in person is fantastic. As vendors, they're at the top of my list."

About Fluke Networks

Fluke Networks provides innovative solutions for the installation and certification, testing, monitoring and analysis of copper, fiber and wireless networks used by enterprises and telecommunication carriers. The company's comprehensive line of Network SuperVision™ Solutions provide network installers, owners, and maintainers with superior vision, combining speed, accuracy and ease of use to optimize network performance. Headquartered in Everett, Washington, the company distributes its products in more than 50 countries.

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