EPWORTH HEALTHCARE
Wireless technology a vital need for Epworth

Epworth

BENEFITS:

- A fast, high performing wireless network to support over 750 patients per day, more than 150 doctors and over 300 hospital devices on a 24x7 basis, across seven healthcare facilities

- Leverages next-generation 802.11ac Aruba Networks technology including approximately 490 indoors access points, with 135 to be added

- Utilises the Aruba Networks ClearPass Access Management solution to centrally manage Epworth's wired and wireless systems through one single, highly secure platform

- Stable and constantly reliable wireless access to support a high density of users at any one time, without slowing down

Epworth HealthCare is Victoria's largest not-for-profit healthcare group, and is renowned for its cutting edge healthcare, as well as its embrace of evidence-based medicine and pioneering treatment for patients. Every year, more than 122,000 patients are admitted to one of Epworth's seven hospitals in Victoria.
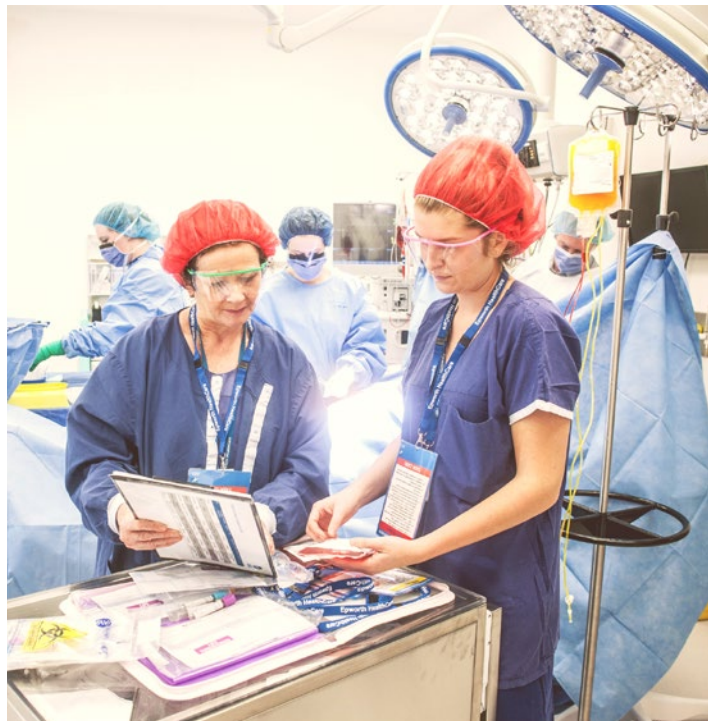
Epworth invests all surplus funds back into the training of its staff, developing its facilities and purchasing latest technology to keep the organisation at the forefront of medical treatment. According to Epworth's infrastructure manager, Nicholas Hobbs, the company looked to Aruba Networks when it sought a high performing enterprise mobility infrastructure that incorporated the next generation networking standard 802.11ac.

"We required a faster, more reliable wireless network for our doctors and patients as well as a solution that streamlined the management of people accessing our fixed and wireless systems. We wanted a single, highly secure platform that protected our investment in wired infrastructure," said Mr Hobbs.

Over 78,000 operations are performed across the group's seven facilities, and the emergency department is attended in excess of 27,000 times during the year. Along with the high volume of operations and emergency department attendances, close to 3,500 babies are delivered every year by Epworth doctors.

"We've been very happy with the Aruba Networks solution. It's snappy and it's reliable. We've never had any issues, and Clearpass is fantastic at diagnosing authentication issues."

Nicholas Hobbs
Infrastructure Manager, Epworth

With technology a vital part of the experience for both doctors and patients at Epworth's seven facilities, the Group embarked on a two-year long program to upgrade its enterprise mobility infrastructure across the Group from older generation 802.11n and 11g wireless technology to the latest networking standard 802.11ac.

According to Epworth's infrastructure manager, Nicholas Hobbs, the Group made the decision to deploy Aruba 802.11ac mobility infrastructure in mid-2013. They sought a higher performing wireless network, with the capability and bandwidth to support a larger density of users, at any one time.

"Overall it's several kilometres worth of floor space that is covered by the entire roll out. And the upgrade included installing access points into areas that had previously had no coverage at all," said Mr Hobbs.

RELIABLE, STABLE WIRELESS FOR PATIENTS TO SURF ACROSS MULTIPLE DEVICES

The 802.11ac deployment covers all of Epworth's facilities, and will include its new teaching hospital, in partnership with Deakin University in Geelong. The new teaching facility is set to come on stream in 2016, and will join the Group's other facilities in locations such as Box Hill, Camberwell, Brighton and Hawthorn in Victoria.

Much of Epworth's floor space is situated in highly urban or high-rise developments. This has necessitated the installation of approximately 450 wireless access points to provide the full coverage required by both patients and doctors. This number includes a further 135 access

points set to be deployed into the newly renovated site at Richmond, Epworth's largest hospital.

According to Mr Hobbs, the wireless network is primarily accessed by doctors and patients. For instance, more than 150 doctors of the 2050 doctors and specialists currently working with Epworth, will use the wireless every day. In addition to this, around 750 patients per day will access the network on a 24x7 basis and 300 corporate and medical devices are also connected via the wireless network.

"With patients, there's an expectation that Wi-Fi will be there," he says. "Wireless is akin to electricity now, with access a basic requirement. People just expect that it will be there."

According to Mr Hobbs, most patients will bring in a device in order to complete work or browse the Web, while they're recovering from an operation or illness. Most commonly it's a smartphone, however, tablets are also extremely popular among the patients coming into an Epworth facility.

"We get a significant amount of professional people coming in who might need surgery. They want to continue working while recovering, while other patients will just want to surf the Web. They're accessing social media networks to downloading rich media files such as video," explained Mr Hobbs.

While patients will generally bring only a single device into an Epworth facility, doctors regularly carry up to three devices, depending on their role and their personal need for connectivity.

According to Mr Hobbs, doctors primarily use the wireless network to access their office and practice systems outside the hospital.

"Doctors utilise the network to maintain their businesses. They are accessing their own systems more often than not," said Mr Hobbs.

CLEARING THE WAY FOR A SECURE AND SEAMLESS SOLUTION ACROSS WIRED AND WIRELESS

The deployment was implemented by just two people in conjunction with support from an IT infrastructure partner and the team at Aruba Networks. Support for the network is handled in-house by Epworth's IT department, managed from a single platform.

The team uses Aruba's ClearPass Access Management solution to administer both the wired and wireless systems. Two ClearPass controllers are used to manage all of the Epworth facilities, and the solution was chosen due to its enterprise-grade security capabilities.

"Security is a factor in everything that we do in the healthcare space, and there aren't a lot of choices when it comes to high quality security. That's why we chose a system that we can rely on, and ClearPass plays a major role in the complete solution," said Mr Hobbs.

According to Mr Hobbs, the entire system has also been highly reliable since installation, with high speeds and no failures reported from either access points or controllers.

"It's centrally managed and has been designed to be highly available so if we did ever experience an issue there's no impact to the sites," continued Mr Hobbs.

He also notes that reliability was an absolutely essential part of the consideration when choosing Aruba because a lack of reliability generates calls to the service desk.

"If it's not reliable, doctors can't do their work as effectively as they could otherwise. The patients are also less satisfied. You don't like giving unreliable service to anybody," said Mr Hobbs.

ON THE PATH TOWARDS MORE MOBILITY IN HEALTHCARE

One area where Epworth stands apart is that it's never considered charging for use of Wi-Fi. Hobbs says that it's because Wi-Fi is such an expectation now.

"We've always had wireless in the doctors' areas, and we're just expanding that in line with expectation. We've never charged for it," said Mr Hobbs.

Overall, Epworth – and its patients and doctors – are highly satisfied with the Aruba technology. "We've been very happy with the Aruba Networks solution. It's snappy and it's reliable. We've never had any issues, it's never broken," he continued.

According to Mr Hobbs, while healthcare is a cautious industry, Wi-Fi will play a major role in hospitals moving forward.

"I think that the reality is, wireless is a staple requirement for all businesses these days. Wi-Fi will be built into new hospitals and healthcare buildings more and more. It's part of the IT vision because it's just part of patient expectation," said Mr Hobbs.

ABOUT ARUBA NETWORKS

Aruba Networks is a leading provider of next-generation network access solutions for the mobile enterprise. The company designs and delivers Mobility-Defined Networks that empower IT departments and #GenMobile, a new generation of tech-savvy users who rely on their mobile devices for every aspect of work and personal communication. To create a mobility experience that #GenMobile and IT can rely upon, Aruba Mobility-Defined Networks™ automate infrastructure-wide performance optimization and trigger security actions that used to require manual IT intervention. The results are dramatically improved productivity and lower operational costs.

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