NHS Newham

United Kingdom's NHS Newham Deploys an Intuitive Wireless Network from Aerohive to Drive Down Operating Expenses

Challenges

- With staff roaming between sites, it was important that the IT network at each location provides seamless connectivity and is easy to maintain

- The goal was to have a standard wireless network across NHS Newham's entire estate, providing authenticated users with fast and easy access to data

- Another goal was to offer visitors connectivity without impacting Patient Identifiable Data (PID) security regulations

- NHS Newham was skeptical of being able find an architecture that would provide a good user experience and while reducing costs

Results

- Chose Aerohive because of the controller-less architecture, intuitive access points and central administration platform

- Aerohive removed the need for controllers at each site, which resulted in cost savings

- Using HiveManager to monitor up to 5000 HiveAPs, which means further investment is limited to just additional HiveAPs

- Using HiveManager to manage the entire network from a central location

NHS Newham is responsible for the entire health budget for residents of the London borough of Newham, which currently totals at around 330,000 patients. NHS Newham's overall objective is to improve the health of the local population, and within this it has three priority areas: improving access to care for local residents; ensuring the provision of high quality services, including modernisation; and workforce development – to ensure that staff are equipped to do their jobs effectively.

Providing Local Healthcare

Providing the facilities support and enable the delivery of these objectives is one of the responsibilities of NHS Newham's Director of Resources, Charles McNair. McNair comments, "Delivering high quality healthcare means equipping frontline staff with the capability

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> ICT Network Administrator, NHS Newham

to do their job wherever they are needed. The mobilisation of our healthcare professionals ensures patients have access to the right expertise on-demand; however, it also raises the stakes in terms of NHS Newham's ability to provide the devices, applications, and supporting IT infrastructure to facilitate this method of working.

"Our job, and that of NHS Newham's IT team, is to ensure staff can access and update a patient's records, or schedule a medical procedure, from any location, both securely and in real-time. Achieving this within a limited budget requires driving down capital and operational costs without compromising innovation and value. The latest wireless technologies from Aerohive can assist in this process."

The Challenge

Paul Wrench, ICT network administrator, leads the development and management of NHS Newham's IT infrastructure. He is responsible for rolling out NHS Newham's mobilisation strategy and ensuring the successful adoption of key initiatives such as utilisation of a referral based electronic application (RiO).

"The success of applications such as RiO, depend upon the quality and availability of the network; wireless technology is a tool that we

can harness to facilitate this. With staff roaming between sites, it's important that the IT network at each location provides seamless connectivity and is easy for us to maintain," explains Wrench.

He adds, "The panacea is to have a standard wireless network across NHS Newham's entire estate, enabling authenticated users fast and easy access to data and which offers visitors connectivity without impacting on Patient Identifiable Data (PID) security regulations."

Starting with NHS Newham's headquarters (HQ) and two polyclinics, Wrench needed a wireless network that would meet the organisation's objectives, and which he could eventually scale across the borough.

The Solution

Having previously deployed wireless networks, Wrench was skeptical of finding an architecture that would provide a good user experience and reduce his costs; "The challenges of wireless have been centered on its complexity, reliability, and cost; with wireless fast becoming the primary network connection throughout NHS Newham, these issues had to be overcome."

Working with trusted IT partners, Swiftpath Business Solutions and Networks First, Wrench assessed several wireless vendors, before selecting Aerohive Networks.

"Aerohive stood head and shoulders above its competitors. The controller-less architecture, intuitive access points and central administration platform demonstrates this technology is designed simply to work, and doesn't require constant tweaking or reconfiguration," said Wrench, adding, "The integrated security features also mean we're assured the network is watertight."

Aerohive's cooperative control HiveAPs require no network controllers or overlay networks. Instead, software in the HiveAPs enables them to self-organise into groups called Hives. The result is a secure multi-service wireless LAN infrastructure able to support a vast array of wireless devices, application types and service levels, with faster client performance, wire-like resilience and lower capital and operational costs.

By removing the need for controllers at each site, Wrench remarks that the economic argument was extremely compelling, "It simply wasn't financially viable for us to deploy a controller and redundant controller at every site; nor, due to the critical nature of a healthcare environment, were we able to consider centralising controllers. In contrast, Aerohive's technology allows us to minimise onsite infrastructure, bringing immediate CAPEX and OPEX savings, as well as reducing points of failure in the network."

Going Live

Implemented and supported by Swiftpath Business Solutions and Networks First, the wireless network was initially deployed at the NHS Newham's HQ, and is currently being extended into two of the it's polyclinics. Longer-term, the network will be rolled-out to the remaining 20 sites across the Borough as business demands dictate.

With only one HiveManager required to monitor up to 5000 HiveAPs, as the network scales, further investment is limited to just additional HiveAPs. Wrench and his team are also able to coordinate the entire network from a central location.

Says Wrench, "The platform is very impressive, and allows us to manage the network without going to individual sites. In the long-term, as we migrate to the Aerohive network across NHS Newham, this will massively reduce onsite maintenance freeing us to focus on innovation and value-add activity. Furthermore, the controller-less architecture makes the network both flexible and easy to scale, without impeding performance or resilience."

With the wireless network up and running at NHS Newham's HQ, Wrench concludes that the user experience is exceeding expectations;

"Since its deployment, the network's performance has been seamless. But, ultimately, our employees are the true judge of whether the wireless network works and so far feedback suggests the roll-out is a roaring success!"

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