



Sheffield Health and Social Care National Health Service (NHS) Foundation Trust

A world-class wireless network for 21st Century healthcare.



Business Profile

Sheffield Health and Social Care NHS Foundation Trust is the main provider of a wide range of specialist health and social care services in Sheffield, a major city of some 500,000 inhabitants in northern England. When its existing wireless network could no longer meet growing demand, it turned to Meru Networks so it could continue to deliver – and further improve - its wide range of patient care.

Challenges

- Create a wireless local area network (WLAN) able to support ambitious digital patient record and healthcare provision projects, replacing a network incapable of meeting growing and changing demands
- Enable staff to roam seamlessly around Trust locations without losing device connectivity
- Help the Trust deliver on 25-30 per cent efficiency savings targets set by the UK Government

Deployment Summary

- More than 100 Meru AP320 access points spread across 26 locations to ensure wide-ranging coverage and up-time
- Dual-redundant Meru MC3000 series controllers to ensure there is no potential single point of failure preventing wireless access

Benefits

- Staff can work more efficiently via wirelessly-enabled devices across the Trust's network and spend more time with patients
- Mobile working benefits include the ability to issue prescriptions, dispense drugs, and access scans and lab results using wireless at the bedside or in consulting rooms
- Improved overall operation efficiency and savings, meaning the Meru wireless network has truly enabled organisational change

“We have worked with Meru’s technology for some time now and it’s clear that in situations where speed and ease of installation are key, virtualised WLAN technology stands head and shoulders above traditional microcell set-ups. Our relationship with Sheffield Health and Social Care NHS Foundation Trust is ongoing, and the next step of the project is well underway, trialling a selection of VoIP handsets with a view to moving the Trust’s telephony online.”

– Jason Green, MD of workplace productivity specialists Building Zones, a Meru Networks partner



Sheffield Health and Social Care NHS Foundation Trust provides a wide range of healthcare to patients in England's "Steel City", Sheffield, which has a population of around 500,000 people. The Trust offers mental health services for adults and older citizens, services for people with learning difficulties, drug and alcohol problems, plus a wide range of specialist services.

To function effectively, the Trust relies heavily on wireless (Wi-Fi) communications. Indeed, a key part of its operations involves using Wi-Fi to implement its electronic records initiative and mobile drugs prescription to improve patient care and support.

As Chris Hone, the Trust's IT Services Manager, explains, the legacy microcell network was no longer meeting needs for scalability and reliability, so an upgrade was required to meet the Trust's growing needs.



"The Trust wished to issue prescriptions, dispense drugs, and access scans and lab results using wireless at the bedside or in consulting rooms, but laptops and wireless-enabled dispensing trolleys were already rendered useless due to the unreliable legacy wireless network," Hone said.

"Also, with the National Productive Ward initiative well under way, the Trust was looking to move away from paper-based patient notes to an electronic records system, as one part of a drive to offer better services to patients while at the same time driving improvements in operational efficiency," he continued. "It was clear that the legacy microcell network simply could not do this, and the existing wired network was itself also a barrier to rapid organisational change and flexibility."

Hone added that a wireless deployment in a hospital differs from any other environment in that there's no "out of hours" time in which to conduct site surveys, run trials or install the technology, therefore each step of the process must be carried out with minimal disruption to patients and staff.

The Trust puts its trust in Meru Networks

A nine-month proof-of-concept and vendor comparison WLAN project was run to decide on the right solution and infrastructure. Meru's technology won based on its reliability, scalability, ease of roll-out and ability to layer multiple applications and services over the same physical infrastructure. Starting with clinical areas, the Meru solution gives the IT team the visibility necessary to manage the network across 26 sites, with plans to extend to more. Phase two will see community mental health scheme records go online.



Hospital staff articulated what capabilities and applications they need to support their day-to-day working and IT implemented them. To date, more than 100 Meru AP320 access points have been deployed throughout the Trust's 26 locations. Such is the increasing reliance on the new network, the Trust has implemented dual-redundant Meru MC3000-series controllers to ensure there is no potential single point of failure preventing wireless access.

Benefits for Trust staff and patients

Trust staff can now roam seamlessly with their laptops and wireless-enabled dispensing trollies, unlike under the previous network, making staff more productive and able to spend more time with patients. As a result patient care is improved and care outcomes are better.

“To the NHS, an investment in technology is about gaining an operational edge that allows us to improve patient outcomes, work more efficiently and reduce cost. Speed of deployment to support organisational change is also important as well as being able to provide an excellent return on investment. With Meru Networks’ equipment we have not only improved productivity by speeding access to records and providing that at the bedside, we have also improved wireless access and coverage compared to our legacy solution.”

– Tom Davidson, Director of Information Management and Technology, Sheffield Health and Social Care NHS Foundation Trust

All NHS Trusts aim to meet national efficiency saving requirements of 25-30 per cent and the investment in wireless technology at Sheffield will help it meet that target. Due to its easy of configuration and deployment, the Meru wireless solution has proven to be a true enabler of organisational change. The Trust's clinicians have enthusiastically embraced the shift from paper-based record keeping to mobile electronic patient records.

The Trust has also found that offering secure guest access to the network, at no incremental cost, is a powerful enabler of organisational change, for example allowing interns to communicate and engage with clinicians in a more meaningful and immediate way than was previously possible.

Peter Verity, the Trust's IT Support and Development Officer concluded: “The new system offers ease of installation with no real planning necessary of where to site access points. There are almost no support calls from users, the system just works! The deployment was rapid and trouble free and required 50 per cent less access points than originally envisaged.”

The Trust is so pleased with the new Meru-based wireless network that all new sites will be 100 per cent wireless.

About Meru Networks.

Meru Networks (NASDAQ: MERU) is a market leader in the development of mobile access and virtualized Wi-Fi solutions. Meru's MobileFLEX wireless architecture addresses the ever-growing need for higher bandwidth and higher client densities. The Meru Identity Manager solution greatly simplifies secure device onboarding and the company's unique Context-aware Application Layers (CALs) enable dedicated channel assignments for specific applications, devices and usage scenarios. Meru customers include Fortune 500 businesses as well as leaders in education, healthcare and hospitality. Founded in 2002, Meru is headquartered in Sunnyvale, Calif., with operations in North America, Europe, the Middle East, Asia Pacific and Japan. Visit www.merunetworks.com or call (408) 215-5300 for more information.

For more information about Meru Networks, visit www.merunetworks.com or email your questions to: info@merunetworks.com

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