420,000+

Population served by the NHS Trust

700 beds

Across 3 hospitals

Acute and emergency

Service provision

Doncaster and Bassetlaw Hospitals NHS Trust (DBH) comprises three hospitals, Doncaster Royal Infirmary, Bassetlaw Hospital, located in Worksop, and the Montagu Hospital in Mexborough. It also provides a range of outpatient and community health services across South Yorkshire, North Nottinghamshire and the surrounding areas serving a population of more than 420,000 people.

The Challenge

Doncaster and Bassetlaw Hospitals NHS Trust is focused on delivering healthcare that takes advantage of the very latest technologies to both drive down cost and improve patient outcomes across the board. In order to deliver innovative and effective healthcare models an up-to-date IT infrastructure is absolutely essential.

An ageing IT infrastructure meant that the existing system was no longer fit for purpose and was hindering the Trust's desire to introduce new ways of working. In particular, the move towards electronic patient record administration would have placed intolerable strain on the existing technology. When coupled with an overall increase in the reliance on wireless connectivity for much of today's medical equipment and best practice healthcare models, it was clear that a full network refresh was needed to enable DBH to keep pace with the technological innovation needed to deliver 21st century healthcare.

DBH needed a solution that would deliver the very latest capabilities and ensure the secure network access demanded in an environment where sensitive data is the norm. It would also need to be cost effective, capable of future proofing the network to cope with further expected developments in clinical practice and healthcare administration, and meet a tight deadline to minimise disruption to ongoing clinical activities.

Critical Success Factors

- Secure, resilient access to network capabilities
- A fit-for-purpose network to support new ways of working
- Cost-effective, timely and future-proof solution

The Solution

DBH had worked with Softcat on an earlier large-scale IT implementation project. Its success clearly illustrated that Softcat had the capabilities to deliver a project of such scale and an in-depth understanding of the unique demands associated with major healthcare projects. "It's one of the ways in which we can add value to any project," said Connor Brown, Softcat Healthcare Client Manager. "We understand how the day-to-day pressures of delivering healthcare services leaves little time for internal IT teams to keep up to date with developments in technology. As a consequence, we enable the customer to clearly set out its requirements and then use our market intelligence to identify solutions that will both deliver the required functionality and, most importantly, prove cost-effective."

Softcat proposed a 4-stage implementation process that would minimise disruption and enable the DBH IT team to comfortably meet tight internal deadlines. "Softcat's early-stage groundwork proved invaluable," said Nigel Hall, DBH ICT Infrastructure Manager. "We provided our requirements for the project as a whole and Softcat went out and sourced suitable solution vendors. They carried out all the initial assessment around the capabilities of the technology on offer and then delivered what were effectively 'out of the box' solutions. We could then shortlist our preferred options far more quickly than if we'd have had to do the assessment ourselves."

Individual vendors were then invited to demonstrate their solutions to the DBH ICT team. This enabled them to make an informed choice about the most suitable technologies based on the critical industry intelligence provided by Softcat. "The deep industry understanding and knowledge of the healthcare sector Softcat brought to the process was invaluable," said Stephen Wood, DBH ICT Network Manager. "The whole process was transparent, straightforward and Softcat never took its eye off the ultimate goal of the project – delivering the technology we needed to ensure value for money and positive outcomes for the Trust as a whole and the patients we care for."

Stage 1 of the implementation involved installing replacement Top of Rack (ToR) switches. Softcat's earlier involvement with DBH IT projects convinced the team that they were the right provider to handle this part of the project. Softcat's own engineers oversaw the implementation of a Brocade solution, based on Virtual Cluster Switching (VCS) technology. It would improve network utilisation, maximise application availability, simplify the network architecture and be scalable to cope with future network demands.

For stage 2 of the project, the replacement of the core network, a Cisco solution was chosen. Softcat's extensive groundwork, whereby they not only evaluated the solution's capabilities, but also clearly demonstrated the high performance the client would achieve with the solution, helped assure the DBH ICT team of the technology's suitability for the project.

Stage 3, the installation of edge technologies, was a relatively straightforward element of the overall solution that could be fulfilled with standard commodity hardware. Softcat, recognising the necessity of minimising costs wherever possible, recommended Dell hardware for this part of the project, with their highly capable range of switches proving a cost-effective fit for the purpose required.

Installing wireless access points was the final part of the implementation and an Aerohive solution fitted the bill perfectly. It would provide the functionality, security and ease of management DBH needed to meet its immediate requirements as well as delivering the scalability planned wireless initiatives further down the line would demand.

Solution Highlights

- Thorough market research and industry insight provided by Softcat
- Rapid implementation with minimal disruption
- Cost-effective, fit-for-purpose technologies identified and installed
- Future-proof implementation to cope with ongoing healthcare developments



The Benefits

DBH now has a future-ready network that's been transformed from the ground up. It will help DBH to deliver optimal patient care and take advantage of the very latest technologies in its efforts to improve patient outcomes and administer healthcare in the most efficient and cost effective manner.

The installation of reliable and secure wireless access across the Trust is enabling DBH to keep pace with developments in healthcare practices. As more and more clinical equipment is reliant upon wireless network access to operate successfully, the ubiquitous connectivity delivered by the solution will play a critical role in ensuring DBH can continue to deliver first-class health services.

Significantly increased network infrastructure capacity has also facilitated the delivery of secure, high-speed network access for multiple devices. As Nigel says, "We're committed to a 'paper-lite' approach to healthcare delivery. Effectively, we aim to replace paper with data. Initiatives such as the move towards electronic patient records and increasingly widespread use of wirelessly connected interactive whiteboards and hand-held devices simply wouldn't have been possible with the old infrastructure. Now we have the resilient, scalable network infrastructure that enables us to quickly and easily roll out innovative solutions to keep pace with evolving healthcare models."

The new infrastructure is more streamlined and easier to manage than the previous system. It's quicker, more resilient, and much more secure. Its increased capacity enables DBH to confidently handle the huge increases in data brought about by the radical changes in the way healthcare is delivered today – while ensuring that the system can easily scale to meet the demands of tomorrow.

And perhaps most importantly, the network transformation was achieved on time and on budget. Like every NHS Trust, DBH is under intense pressure to squeeze every ounce of value out everything it does. Softcat's extensive preparations ensured that DBH achieved full value from individual vendors by driving down costs and enabling the Trust to do more with less.

As Nigel says, "It's been a transformative project in so many ways, not just from a technological viewpoint, but critically, it's been a catalyst for the introduction of new and more clinically effective ways of working. We never lose sight of the fact that everything we do is predicated on improving patient outcomes. We now have a rock solid infrastructure that means we can deliver the 21st century healthcare our clients expect and deserve."

At a Glance (Benefits)

- Future proof network transformation introduction of new ways of working
- Cost-effective and framework compliant solution
- Secure, resilient, high-speed wireless access
- Minimal disruption on time and on budget

Why Softcat?

Due to the size of the project, DBH needed assurance that they were approaching suppliers who could deliver a solution via an appropriate framework route. Softcat's extensive framework portfolio (accredited on over 25 national and regional public sector IT frameworks) assured DBH that it was engaging with a company that had already undergone rigorous assessments via numerous OJEU competitions. Once the project had been completed, Softcat's successful bid highlighted its capacity to deliver a solution that was both fit for purpose and compliant with the specific framework terms and conditions required.

Softcat's long and impressive track record of delivering transformational public sector projects, as well as previously implementing successful IT programmes with DBH, meant the client had full confidence in the solution. "Softcat clearly understands how best to help NHS Trusts implement IT change to deliver better healthcare, better services and, ultimately, better patient outcomes. It took care of everything, which meant minimal resources required from the ICT team. We simply outlined our requirements, proposed a timeline and Softcat fulfilled on its promises," said Nigel.

Summary

A radical network transformation wasn't simply a choice for DBH – it was a necessity if the Trust was to keep pace with developments in healthcare delivery and ensure high-quality patient outcomes now and in the future. Softcat's preparatory groundwork and industry insight were essential components of the success of the project. It helped ensure that DBH's ICT team were confident that the proposed solution would deliver on its promises, create an IT environment that supported innovative solutions to today's healthcare challenges and, just as importantly, deliver full value for money.