Translating Technology into Healthcare Innovation

Wireless video solution improves access to language specialists, optimizing patient care and cost efficiency

EXECUTIVE SUMMARY

Customer Name: Bradford Teaching Hospitals NHS Foundation Trust

Industry: Healthcare

Location: Bradford, United Kingdom

Number of Employees: 5200

Challenge
- Improve range, quality, availability, and cost efficiency of patient interpretation services

Solution
- Mobile trolley-based HD video solution using Cisco Collaboration and Borderless Network wireless technologies

Results
- Ability to meet interpretation session target of 12,000 interactions per annum, with 30 percent cost saving
- Better patient experience with less risk of incorrect treatment or cultural offense due to language issues
- Foundation for national healthcare interpretation network

Challenge

Bradford Teaching Hospitals NHS Foundation Trust serves the healthcare needs of 500,000 citizens, of which 22 percent are from black or minority ethnic (BME) origins. Many of them do not speak or understand English, a situation that often resulted in patient communication problems at Bradford Royal Infirmary and St Luke's Hospital. With over 900 beds and 5200 staff collectively, these two busy hospitals deal with over 120,000 accident and emergency (A&E) attendances a year, nearly 50 percent of which are estimated to be from the BME communities.

Effective communication between doctors, nurses, and patients is vital, but interpretation services were inconsistent. For face-to-face consultations, clinicians used in-house interpreters or hired interpreters from their professional register who specialized in a core set of languages. However, these interpreters were not always available at short notice, so clinicians were often forced to communicate via patients' relatives and friends. The alternative was to use a telephone interpreting agency, but this approach was expensive and unpopular with medical staff, because it lacked the visual interaction needed in a patient consultation.

In addition to inconsistency and expense, these methods of interpretation had other disadvantages. Using nonprofessionals increased the risk of misinterpretation, which could create potential risks when delivering medical care. Similarly, using a male interpreter could be embarrassing for women, particularly if their condition was of a sensitive nature.

"There were issues with our ophthalmology operating theatre list, for example" says Neil Bowman, service manager for Theatres and Anesthesia. "Patients needed to provide consent for surgery but, if there were no interpreters available, it caused significant delays in the admissions process. We needed to find some way of getting interpreters quickly to the point of need. That's when we came up with the idea of video interpreting."

"What's most important for our patients is effective face-to-face communication with clinicians. We believe this is the first U.K. acute hospital video-based interpretation solution... and it's been very well received by patients and staff."

Neil Bowman
Service Manager for Theatres and Anesthesia
Bradford Teaching Hospitals NHS Foundation Trust

Solution

To move from concept to reality, the hospitals began to explore how patient interpretation services could be delivered over a wireless video solution. A business case was then prepared to obtain funding from Trust directors. The Trust already used Cisco wired and wireless networks, so Bowman consulted experts from the Cisco Healthcare Team to help design a wireless-based video solution. A proof-of-concept was subsequently arranged to thoroughly test the Cisco solution and gather feedback from both clinicians and patients.

"Cisco was very responsive to our needs and took the time to work with us to define the problem and come up with a technological solution that fitted our requirements," says Bowman. "Cisco specialists advised us and were really responsive when it came to resolving any issues."

The result is a fleet of trolley-based interpreting endpoints, which are powered by battery packs, allowing easy transportation to any hospital location. The trolley offers a simple keyboard and screen with video communication enabled using Cisco® Unified Communications technology. Cisco TelePresence® PrecisionHD USB Cameras are mounted on top of each unit to capture high-definition (HD) images. The solution is built from standard Cisco components, including Unified Communications Manager, Unified Contact Center Express, Unified Presence, TelePresence Video Communication Server, and TelePresence Management Suite.

Using a mouse, clinicians select the language they require and the preferred gender of the interpreter. The system uses one of the hospital's 350 Cisco wireless access points to connect to a dedicated team of interpreters who constitute, in effect, a small contact center. To help ensure quality of services, video interpreting services are segregated from other traffic on the wireless network.

It is planned the interpretation team will be able to cover 80 percent of cases when the system is fully rolled out, using seven core languages: Urdu, Punjabi, Hindi, Bengali, Czech, Slovak, and Polish. Should the need arise, other languages can be added easily and cost effectively.

Results

With HD picture quality provided by the video interpretation solution, doctors, patients, and interpreters can all see and communicate with each other as though they are in the same room. Without having to move from their office, the team of language specialists can work more efficiently and cost-effectively towards achieving their overall target of conducting 12,000 sessions a year.

"What's most important for our patients is effective face-to-face communication with clinicians," says Bowman. "We believe this is the first U.K. acute hospital video-based interpretation solution and, from our initial evaluation, it's been very well received by patients and staff."

As well as improving the patient experience, the system provides greater access to professional interpreters, in turn reducing the risk of misinterpretation and potential misunderstanding.

"Our primary focus is to make hospital services more accessible to non-English speakers, while we estimate that the Cisco solution will reduce our interpretation costs by 30 percent," says Nazakat Hussain, the Trust's interpreting and patient communication manager. "Before, we didn't have the capacity to meet demand internally. Now, because our in-house language specialists can physically carry out more sessions, we're able to flex interpretation services to meet patient demand."

> "We are looking to work in partnership with other NHS organizations to create a national interpretation network and share these benefits... Working with a technology leader like Cisco is key to moving this concept forward."

Nazakat Hussain
Interpreting and Patient Communication Manager
Bradford Teaching Hospitals NHS Foundation Trust

And the Bradford project may be the foundation for a national healthcare scheme covering a wide range of languages. "We are looking to work in partnership with other NHS organizations to create a national interpretation network and share these benefits," says Hussain. "Having a robust solution like this is a good basis for conversations with other Trusts, while working with a technology leader like Cisco is key to moving this concept forward."

For More Information

To learn more about Cisco Collaboration, go to www.cisco.com/go/collaboration.

Product List

Unified Communications
· Cisco Unified Communications Manager

Customer Collaboration
· Cisco Unified Contact Center Express
· Cisco Unified Presence

TelePresence
· Cisco TelePresence Video Communication Server
· Cisco TelePresence Management Suite
· Cisco TelePresence PrecisionHD USB Cameras

Wireless
· Cisco Wireless Access Points

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