Liverpool Women's NHS
NHS Foundation Trust

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Leading women's hospital pilots IPTV to improve the patient and visitor experience

The Liverpool Women's NHS Foundation Trust is the culmination of more than two centuries of dedication to women's health, and the health of their babies. From its beginnings in the 18th century as a charity to provide medical care and assistance with childbirth, it has grown to become the largest women's hospital of its kind in Europe, offering the highest standards of healthcare in maternity services, gynaecology, oncology, neonatology, reproductive medicine and genetics services. The Trust is also a teaching hospital, associated with the Faculty of Medicine at University of Liverpool.

The faculty trains doctors, nurses, midwives and other professional staff and the hospital decided to make a major investment in TV and video to improve the patient experience, in accordance with an NHS mandate.

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Dr. Zafar Chaudry, Chief Information Officer, Liverpool Women's and Alder Hey Children's Trusts

The challenge

"TV is a proven way to reduce patient stress and consequently enhance the outcome of their stay here, as well as improving the waiting room experience for visitors," says Dr. Zafar Chaudry, Chief Information Officer for Liverpool Women's and Alder Hey Children's Trusts. "Until now, we have supplied bedside entertainment with a TV on a dolly and the waiting rooms had no TV at all."

Traditionally, TV is distributed in a building using analogue cabling. Picture quality tends to be poor. Such systems are subject to electrical interference and signal loss, which limit the distance the TV signal can be transmitted and how many TVs can be supported. Video (e.g., from a video camera) is usually distributed via an analogue AV network using point-to-point matrix switches to connect devices, which limits its reach.

The solution

Based on Dr. Chaudry's experience with IPTV, and given the digital switchover in TV, the Trust knew from the beginning that it would go with enterprise IPTV. This uses an organisation's local-area network (LAN) to digitally distribute both TV and video throughout a building, a campus, or even a metropolitan area, eliminating the need for additional cabling. "You don't have the distance and quality problems of analogue," he says, "you don't have to worry about digital switchover and you can add new sources or displays much more easily."

Even more important, IPTV leverages the Trust's high-speed LAN, which already played an integral part in the hospital's excellence, hosting critical applications for patient care, clinical management, and education. "We are always looking for additional tasks the LAN can support, to make sure we get the most from a significant investment," says Dr. Chaudry. "In combination with Voice over IP (VoIP) to support phone service, IPTV system lets us use one cable to support data, voice, and video to the bedside."

After consultation with Parity Medical, the UK's leading specialist healthcare IT provider, the hospital chose the Philips CareServant patient information system as the foundation of their patient experience initiative, supported by Exterity head-end solutions to supply the TV channels desired and digital signage for waiting rooms. "We are currently piloting the system with 17 beds—10 in the gynaecology ward and 7 in private rooms, as well as 14 waiting rooms," says Dr. Chaudry.

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Steve Wood, Managing Director of Parity Medical commented: "Parity Medical works with NHS Trusts on specialist healthcare IT installations all over the UK, but this was a particularly interesting project as it brings together a number of leading edge technologies to improve the patient experience. When Dr Chaudry asked Parity Medical to develop a Patient Entertainment System to meet the specific needs of Liverpool Women's NHS Foundation Trust we had no hesitation in involving leading edge technologies from Exterity for IPTV and Philips for their CareServant system."

"Exterity IPTV integrates with a wide range of healthcare information solutions to give medical organisations a future-proof way to deliver an enhanced patient experience, and improves the return on their network investment."

Colin Farquhar, CEO, Exterity

The result

An Exterity TVgateway captures 25 free-to-air TV channels (including BBC News) plus radio channels from an aerial and injects them into the hospital network as standard, easily-managed MPEG streams. Using the Philips system, patients can touch-screen select and view any of them on a wide-screen monitor mounted on a swivel arm next to the bed, along with video-on-demand from CareServant. A mini-keyboard also gives them web access, computer use, and phone service.

In the waiting rooms, 40-inch monitors display BBC News with subtitles supplied by the Exterity TVgateway. In addition, an Exterity Encoder injects the signal from a digital signage player to display important announcements and hospital information along with the news coverage. "Visitors are quite enthusiastic about the new waiting room systems," says Dr. Chaudry. "They've been up and running only about 30 days, and both patients and staff are already insisting that we put them into smaller areas as well."

That enthusiasm is matched by staff and patient response to the bedside availability of TV. "I'm very impressed with the signal quality, and it's now matching patient expectations of getting the same picture they'd see in a hotel or at home," Dr. Chaudry says. He adds that the nurses absolutely love it. "Poor TV makes people grumpy, and they tend to take it out on the nurses. With the new system, patients are happy and the nursing staff is less stressed. The only downside is that they want to know why we're taking so long to roll out TV to the rest of the hospital!"

Even more telling was a comment from the medical director of the hospital, who noted that patients like the system so much that "I can't get them off the TV to have a conversation." A survey of participating patients revealed that 75% rated the choice of TV, video and radio as excellent, and the same percentage found the system really easy to use."

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Our surveys have shown that patients would be willing to pay £2 a day for this level of service, which represents a seven-year payback on the system if you don't try to factor in the improvement in care outcomes," says Dr. Chaudry. "£3 a day would bring it down close to the standard five-year period, and we're investigating sponsorships by appropriate organisations that may accelerate pay-off."

Dr. Chaudry emphasises that the bottom line for the system is an improved patient experience. "Exterity is helping us deliver the government's requirements for deploying entertainment systems to make patients comfortable, to make them feel connected, and enable them to communicate more effectively with caregivers and their loved ones."

"Parity Medical is proud to have lead the project in terms of bringing the technology providers together, supplying all of the back and front end devices, performing the installation of the wall mount arms, and working with Philips to ensure a smooth installation of the CareServant system. The result has been a fantastically high quality system for patients which has meant that Dr Chaudry reaches his objectives of delivering a significantly improved patient experience, reaching government guidelines and making Liverpool Women's Hospital a leading light." says Steve Wood, Managing Director of Parity Medical

"The experience of the Liverpool Women's NHS Foundation Trust underscores the power of IPTV solution in healthcare," says Colin Farquhar, CEO of Exterity. "A hospital can be a stressful place, putting people back in communication with the outside world, can go a long way to relieving that stress. Exterity IPTV system integrates with a wide range of healthcare information solutions to give medical organisations a future-proof way to deliver an enhanced patient experience, and improves the return on their network investment."

About Exterity

Since 2001 Exterity has been designing, developing and manufacturing technically innovative products that deliver networked video over IP to some of the leading organizations across the globe. These organizations choose Exterity products because they want the best, because they demand excellence.

Enabling distribution of HD quality TV and video over enterprise IP networks to an unlimited number of end points, Exterity solutions support large volumes of content and receiving devices without compromising system performance or availability.

Highlights

- Deployed in over 40 countries
- Scalable solutions for organizations of any size and across any sector
- Unique industry leading features and market specific application

Headquartered in Scotland UK, we extend our global reach through our offices in Atlanta, London, Paris, Munich, Dubai, Hong Kong and Johannesburg. Localized knowledge and expertise is enhanced through the Exterity StreamForce program of credible, technically innovative partners, plus an extensive network of in-country resellers and distributors.