

Bristol Children's Hospital finds equipment in a few clicks

"The system has helped us considerably. Our staff ask why we didn't have this years ago."

Ann Miller – Matron, Bristol Royal Hospital for Children



Case Study: Bristol Royal Hospital for Children

The Bristol Royal Hospital for Children is part of the University Hospitals Bristol NHS Foundation Trust which manages eight hospitals within Bristol.

The hospital provides a local service for Bristol children and a referral service for specialist care for families across the South-West and nationally. The current building, which opened on the 22nd April 2001, was the first purpose-built children's hospital in the south-west. The hospital has 120 beds in 15 wards spread over six floors.

Airetrak was appointed by the University Hospitals Bristol NHS Foundation Trust to provide an equipment tracking and monitoring solution to work with the hospital's existing wireless LAN within the Bristol Royal Hospital for Children. Airetrak was selected because of the adaptability and cost-effectiveness of the solution, as well as Airetrak's ability to provide local support.



"Airetrak understand the NHS environment and are able to work seamlessly with us and our partners to deliver solutions that really meet our needs."

Dave Oatway - IT Manager,
Bristol Royal Hospital for Children

Challenge: Time wasted looking for equipment

Searching for items wasted valuable staff time and detracted from patient care. Nursing staff at the Bristol Royal Hospital for Children often spent as much as half an hour searching for portable medical equipment, particularly small items such as saturation monitors and Vapotherm machines, which could be located in any of the 15 wards and their associated cupboards. Furthermore, because of the age-range of patients, finding a suitable and available cot or bed was also very time-consuming.

"Small handheld items such as saturation monitors can be difficult to find. It can take our nursing staff half an hour to find one piece of equipment that may be hidden from view in a cupboard."

In addition, technical staff could spend a day a week hunting for a particular item of equipment that needed to be serviced. Parents had voiced concerns about not being able to easily find wheelchairs when they arrived at the hospital.

Requirement: Asset Tracking and Utilisation Reports

The Bristol Royal Hospital for Children required an asset tracking system that would help them keep track of and locate equipment shared by all the wards such as cots, beds, wheelchairs and portable medical equipment.

The system had to be easy for nursing and other staff to use, easily adaptable to the hospital environment, and cost-effective. The hospital also wanted to produce reports to see where equipment was located at any one time and how well equipment was being utilised. This would help the hospital manage and get best value out of their assets.



Solution:
WiFi Tracking using the existing wireless LAN

Airetrak provided ResourceView™, a WiFi tracking solution that runs on the hospital's existing Wireless-LAN, avoiding the need for a separate costly infrastructure. The system works by attaching small RFID tags to the portable medical devices. The tags send signals to the wireless network, which enables the Airetrak system to pinpoint the location of the tag and therefore the portable equipment. It converts these location co-ordinates into meaningful information, allowing users to see in real-time where the items are on a map of the hospital.

"ResourceView provides a Proximity search to allow nurses and other clinical staff to find the assets that are closest to them."

The solution has been further extended by Airetrak's integration partner, 2e2, to allow clinical staff to access the system via a WiFi phone. For example, a nurse is able to ask, via the phone, 'Where is the nearest wheelchair?' or 'Where is Dr Robertson?' The system uses speech recognition to determine the query and responds using auto-generated speech. This allows staff to locate items while on the move, without the need for a PC or web browser. It also provides detailed reporting and historical information which is useful when auditing usage and distribution of devices. An easy-to-use administration tool allows users to set zones and to assign tags to assets.

Benefits:
More time for patient care

Nursing staff spend less time searching for items, allowing them to work more efficiently and focus their time on patient care. Technical staff are able to locate items when they are needed for planned preventative maintenance. Additionally, the hospital receives fewer complaints from parents about not being able to find items such as wheelchairs.

"The system is very user friendly and we can find equipment within a few clicks. This meant we got quick buy-in from staff, who wouldn't want to work without it now."

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Benefits to Bristol Royal Hospital for Children:

- Less time spent searching
- Increased staff productivity
- More time to focus on patient care
- Understand asset utilisation
- Manage and control assets
- Fewer complaints from parents



The hospital is also able to keep track of its assets and understand how well items are being utilised. This provides useful information to support their equipment purchasing and asset management decisions.

Outcome:
Extend to other hospitals in Trust

The tracking system is very easy to use and has received positive staff take-up, making a significant contribution to the success of the project. As a result, the hospital plans to use the system to track more items and extend the solution to other hospitals within the United Bristol Healthcare NHS Trust.

"The Airetrak solution has helped to improve our efficiency. I would definitely endorse it and recommend other hospitals use it."

The Bristol Royal Hospital for Children will also be able to take advantage of new tag functionality such as temperature monitoring, call buttons, anti-tamper alarms and motion sensors. Initially, the hospital plans to make use of the call button function to show when a bed is in use or available. The age and size ranges of the children make it difficult to find an available bed of the right size when a new patient arrives. By tagging all beds and cots, they will instantly be able to identify all available beds of the right size, and locate them within the hospital.

Ability to access additional applications:

- Temperature sensors
- Motion sensors
- Alerts and notifications
- Anti-tamper technology
- Call button for emergency
- Bed management

Airetrak

Airetrak provide asset tracking products and solutions for the Healthcare sector, providing hospitals and Trusts visibility of the key assets and resources being used across the organisation. This enables them to manage their assets in a more effective way, helping to save time and money, and allowing them to focus on improving patient care.

"Knowing the location of available medical equipment, including wheelchairs, cots and beds can improve efficiency and can be essential to enhancing patient care. Airetrak's ResourceView can ensure that key hospital staff can locate essential assets and resources when they are needed."

Roger Willmott, CEO, Airetrak