

# Improving efficiency and patient care at Gateshead Health NHS Foundation Trust



QE Facilities is a subsidiary of Gateshead Health NHS Foundation Trust, based in the North-East of England, UK. The Trust employs 4,800 staff, with a 500-bed capacity and manages 20,000 medical devices across external sites, including hospitals, NHS organisations, and private healthcare providers. The medical engineering team, consisting of 20 staff members, oversees the management of all medical devices within the organisation.

Thanks to RFID Discovery's hybrid solution combining BLE and passive RFID technology, Gateshead NHS can now locate key equipment in real-time and audit all medical devices 10 times faster.

## Challenges

The Trust faced several challenges related to the management and availability of medical equipment, impacting patient care and operational efficiency:

- Equipment unavailability: critical medical equipment was often not ready or available, leading to significant patient care issues, including delays in diagnosis, treatment, and discharge.
- Locating devices: medical devices were difficult to locate for maintenance, resulting in wasted time for both technical and clinical staff.
- Poor utilisation: existing equipment was underutilised, leading to unnecessary additional purchase of equipment, and financial strain.



The Trust needed a solution to achieve real-time visibility of critical medical devices to improve patient care and operational efficiencies, enhance device servicing and maintenance compliance, and ensure GSI compliance.

## The solution

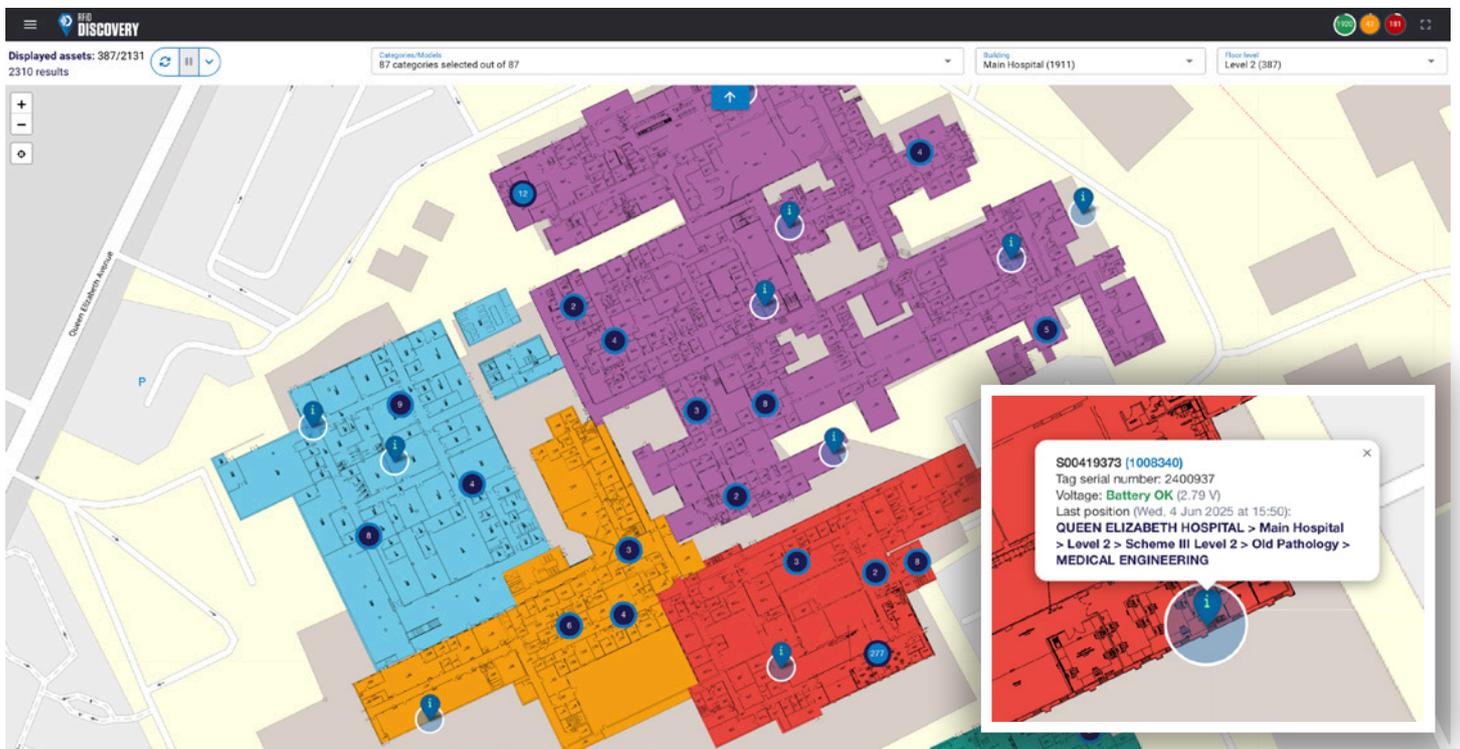
The implementation started at the Trust's Queen Elizabeth Hospital and utilises a combination of RFID Discovery's passive RFID and active BLE solutions to improve medical device management.

The active BLE solution enables the trust to locate its 3,500 key high-risk and high-value assets in real time, by displaying device locations on a digital map with an accuracy of around 2 metres. In addition, 'last seen' location information is available for all its 20,000 medical devices, using GSI compliant passive RFID labels.



“ Being able to find bladder scanners easily has been a real game changer for our team. We're no longer wasting time searching for equipment, which means we can avoid unnecessary delays and keep patient care on track. ”

**Dean Pegg**  
Deputy Head of Medical Engineering  
Gateshead Health NHS Foundation Trust



RFID Discovery - General map view

## Key Benefits

- Real-time location visibility of key medical devices
- Increased efficiency resulting in time and cost savings
- Improved patient care
- Increased maintenance compliance
- Quality data to support device management and planning



# How does it work?

For the real-time location system using active BLE technology, a total of 3,500 puck asset tags were fitted to key medical devices, such as infusion pumps, ECG monitors and beds.

The reader infrastructure includes 750 BLE anchors which form a smart, self-healing mesh grid to triangulate the live position of tags, and data is uploaded via a total of 32 gateway readers.



Passive tag on medical device



Passive antenna & BLE anchor at Medical Engineering

The solution was easy to install thanks to wireless battery-powered components. Batteries can be changed easily and last up to five years, which makes on-going maintenance simple.

The strategic placement of anchors throughout the site ensures the server engine's algorithms can process tag location data to produce a high level of accuracy of up to 2 metres. Location information can then be accessed via a map view in real-time or used to highlight any shortages or overstocking.

To enable easy auditing of all 20,000 medical devices, GS1 compliant passive RFID labels were printed using an RFID label printer and fitted to each asset. Additional rubber tags and UHF hard tags were used where required to ensure good read rates.

A specially designed RFID trolley reader with a read range of up to 11 metres is used to capture locations of tagged assets, as it's pushed through the hospital by a clinical engineering technician.



Trolley reader

In addition, a total of 6 handheld RFID readers enable the clinical engineering team to audit smaller areas and quickly locate specific devices for servicing.



Handheld reader

The solution was seamlessly integrated with the Trust's existing medical device asset management system.

This means the RFID Discovery system can, for example, flag up any devices due for service or recall in a specific location.

Status	Asset	Location	Last Seen	First Seen	Category	Owner	Assigned Location	Type	Map	History	Timeline	AC
	1006172	MedEng Reader 6	20/02/2026 16:12	18/02/2026 12:27	CARESCAPE MKP101	E-Quip Unlinked	THEATRES					
	1011180	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:28	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1011205	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:30	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1007629	MedEng Reader 6	20/02/2026 16:12	18/02/2026 15:19	SINGLE DIAMOND 9505	E-Quip Unlinked	WARD 26					
	1005684	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:26	BIS LOC 4 185-1016-AMS	E-Quip Unlinked	THEATRES					
	1012528	MedEng Reader 4	20/02/2026 16:12	20/02/2026 12:53	INFUSOMAT SPACE PLUS	E-Quip Unlinked	CHEMOTHERAPY UNIT - TRANWELL					
	1011191	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:31	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1011266	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:28	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1011274	MedEng Reader 4	20/02/2026 16:12	18/02/2026 13:00	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1011272	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:24	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1015934	MEL Ant 2	20/02/2026 16:12	20/02/2026 15:46	AIRFLOW 24 CAMEL	E-Quip Unlinked	MEDICAL EQUIPMENT LIBRARY					
	1014200	MEL Ant 4	20/02/2026 16:12	20/02/2026 14:05	SPACECOVER COMFORT	E-Quip Unlinked	DELIVERY SUITE					
	1011181	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:29	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1008440	MEL Ant 4	20/02/2026 16:12	20/02/2026 16:12	MAC 2000	E-Quip Unlinked	MEDICAL EQUIPMENT LIBRARY					
	1011182	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:28	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1007030	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:24	0570-0347	E-Quip Unlinked	UROLOGY DEPARTMENT					
	1009903	MedEng Reader 4	20/02/2026 16:12	20/02/2026 15:02	CARESCAPE ONE	E-Quip Unlinked	CRITICAL CARE					
	1011255	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:25	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1012530	MedEng Reader 4	20/02/2026 16:12	20/02/2026 15:58	INFUSOMAT SPACE PLUS	E-Quip Unlinked	CHEMOTHERAPY UNIT - TRANWELL					
	1012568	MEL Ant 1	20/02/2026 16:12	20/02/2026 11:38	INFUSOMAT SPACE PLUS	E-Quip Unlinked	CHEMOTHERAPY UNIT - TRANWELL					
	1011017	MEL Ant 4	20/02/2026 16:12	20/02/2026 16:09	HI-AIR 2300	E-Quip Unlinked	MEDICAL EQUIPMENT LIBRARY					
	1011281	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:25	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1015363	MEL Ant 4	20/02/2026 16:12	20/02/2026 14:40	SPACECOVER STANDARD	E-Quip Unlinked	EMERGENCY CARE CENTRE					
	1017714	MEL Ant 3	20/02/2026 16:12	20/02/2026 12:07	TR-340	E-Quip Unlinked	INFECTION CONTROL DEPT					
	1011151	MEL Ant 2	20/02/2026 16:12	20/02/2026 05:15	PRIME PLUS	E-Quip Unlinked	MEDICAL EQUIPMENT LIBRARY					
	1017344	MedEng Reader 4	20/02/2026 16:12	20/02/2026 15:51	BODYGUARD T	E-Quip Unlinked	MEDICAL EQUIPMENT LIBRARY					
	1015620	MEL Ant 2	20/02/2026 16:12	20/02/2026 15:53	FLOCARE INFINITY III	E-Quip Unlinked	MEDICAL EQUIPMENT LIBRARY					
	1011251	MedEng Reader 4	20/02/2026 16:12	18/02/2026 12:27	UA-7675	E-Quip Unlinked	COMMUNITY MIDWIVES					
	1012544	MedEng Reader 4	20/02/2026 16:12	20/02/2026 14:28	INFUSOMAT SPACE PLUS	E-Quip Unlinked	MEDICAL EQUIPMENT LIBRARY					

## The results

The benefits of the solution at NHS Gateshead are substantial, in terms of time saved by nursing staff when locating medical devices. One example is the Emergency Care Centre (ECC), which can now easily locate bladder scanners, **saving the equivalent of a full-time nurse** and **preventing patient care and discharge delays**. Substantial cost savings have also been realised. This includes **avoiding a £50,000 order for additional infusion devices** by increasing the utilisation of existing equipment.

Enabling clinical staff to locate medical devices more easily also led to a **reduction of clinical incidents raised due to equipment not being available**. Moreover, maintenance compliance for patient hoists increased from 62.8% to 96.8% with the use of active BLE tags.

Finally, equipment **audits are now more than ten times quicker** than manual audits, and the system supports accurate reporting, monitoring, planning, and management of assets. The hybrid system offers a more cost-effective approach, with the involvement of clinical staff being essential to fully utilise the system's capabilities and lay the groundwork for future developments such as the expansion of the Emergency Care Centre (ECC), patient tracking, or wayfinding and patient appointments.



**Gateshead Health**  
NHS Foundation Trust

## Why choose RFID Discovery?

RFID Discovery is a leader in integrated identification and location tracking solutions. Used in over 200 hospitals across the UK, Europe and beyond for over 15 years, RFID Discovery is the number one choice for medical device tracking and other healthcare location solutions using RFID, BLE and other technologies.

We are part of Paragon ID, hold the Cyber Essential certification and our system is GS1 UK approved.

Paragon ID is a RAIN Alliance member and certified to ISO9001, ISO14001, ISO27001 and ISO45001 standards.



“Implementing RFID Discovery has made everyday tasks much easier – whether that’s trying to locate a device for servicing or for use on a patient waiting to be diagnosed, treated or discharged. In our Emergency Care Centre alone, we’ve saved the equivalent of one full-time nurse.”

**Michael Crowe**  
Head of Medical Engineering & Equipment Services,  
Gateshead Health NHS Foundation Trust