

# NHS Blood & Transplant

Harnesses the Power of Aptean Routing  
& Scheduling to Enable Time-Critical  
Deliveries to UK Hospitals

## Industry

National Health Service

## Challenges

- » Fleet of over 200 specialist vehicles used to move blood and organs to over 250 hospitals
- » Planning, route execution and tracking systems not fully integrated
- » Outdated, manual route planning systems becoming unreliable

## Benefits

- » Fully integrated systems across route planning, proof of delivery and transportation management
- » Automated system to monitor traffic conditions and steer drivers around road congestion
- » Ability to track and record deliveries associated with transportation containers used by NHSBT



NHS Blood and Transplant (NHSBT) is a Special Health Authority and key to the operation of the NHS. Providing blood and organ donation services to the NHS means supplying enough safe blood to hospitals in England and providing organs and tissues to hospitals across the UK. Each year donors give about 1.6 million blood donations, and about 4,000 organ transplants are carried out – saving and transforming countless lives.

Logistics is a crucial part of the NHSBT operation. Over 200 specialist vehicles are used to move blood and associated products between donation sites, processing laboratories and stock holding centers for final delivery to over 250 hospitals.

## New TMS marks a step-change

After a rigorous and competitive bidding process, NHSBT began rolling out a new Transportation Management System (TMS) supplied by Aptean.

The new system is based on Aptean Routing & Scheduling *Calidus Edition*, the core application that integrates several allied technologies. Interfacing with NHSBT's existing ERP system, Aptean Routing & Scheduling integrates electronic proof of delivery (ePOD), an online portal, a route optimization system and Telematics and Sat Nav into a single cohesive system. There are over 250 NHSBT drivers, and each is equipped with the ePOD module running on an Android smartphone. Over 200 NHSBT delivery vehicles carry the telematics and navigation system.



Transportation orders are captured by the transportation management system (TMS) to transport blood right from the start of its journey through the NHSBT process. NHSBT operates many donation sessions every day. Most of these are community sessions and move to new locations regularly.

The ePOD system is able to scan barcodes associated with the transportation containers used by NHSBT, so that these and the units of blood they contain can be tracked as they are delivered back to one of four processing centers.

Once tested and processed, the safe blood product is then moved to one of 15 Stock Holding Units (SHUs). These movements are planned and executed by Apteian Routing & Scheduling *Calidus Edition* and tracked by electronic proof of delivery functionality.

Hospitals order units of blood for their local stock, both for planned surgical procedures and emergency consumption.

These routine orders flow from the ERP to the Apteian software via an automated interface and are then planned against routine fixed hospital delivery slots. Apteian's TMS system makes the best use of driver and vehicle resources by allowing the SHU, most local to the hospital, to order the blood and then plan both deliveries to hospitals and donation collection stops simultaneously.

Any other time-critical deliveries (such as one-off emergency blood movements) are planned and executed separately.

The portal provides hospital staff with a self-service system enabling live tracking of blood deliveries versus the published delivery ETA's. It also provides a separate transportation order entry portal for movement of tertiary (non-blood) items that cannot be requested through the ERP.





## Key partnerships

Utilizing Apteian Routing & Scheduling *Calidus Edition* as the core system, NHSBT is equipped with a fully integrated system designed to further refine the planning of both routine deliveries as well as collections from the ever-changing community sessions.

NHSBT also has access to an array of strategic transportation analysis tools, enabling the organization to better analyze and tune the performance of its network and resources for the future.

The telematics solution is fully integrated with Apteian's TMS software. Their telematics solution has a back-office application used by transportation managers to constantly improve their driving performance. They now have access to a series of dashboards that graphically demonstrate how drivers perform daily and on a cumulative basis against agreed targets.

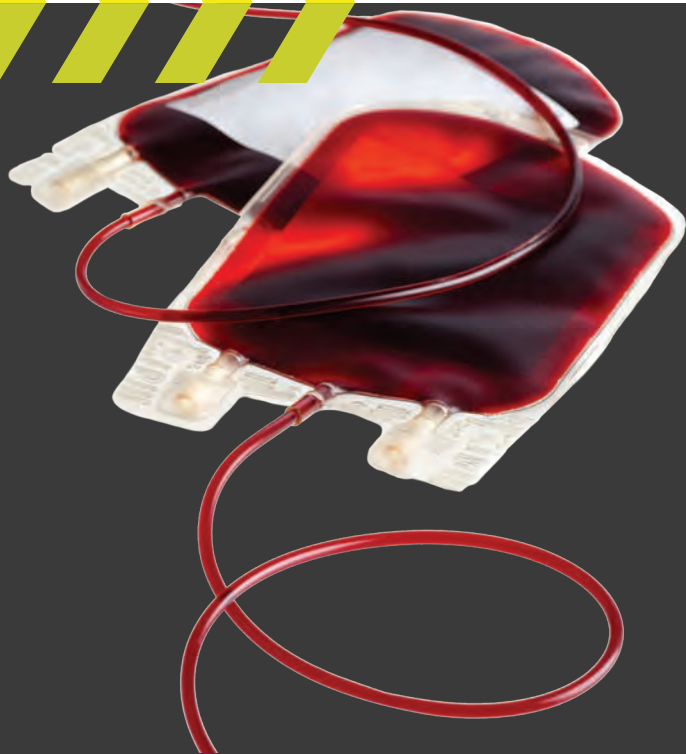
Managers can also access a wide range of reports showing, amongst other things, individual and corporate fuel usage. The system also measures acceleration, braking and cornering forces to analyse driving style.

Staying on schedule is even more crucial for NHSBT than most organizations. The system includes a dashboard level Sat Nav with the added benefit of an automated traffic avoidance function that proactively steers the driver around road congestion. All of this technology is fully integrated with Apteian's TMS and ePOD functionalities.



## Leveraging Aptean's modern tools

NHSBT has made a bold move in equipping its logistics division with the most modern tools to help do the best job that can be done. Aptean's routing & scheduling software, being fully integrated with the other components of the solution, has uniquely facilitated a significant step-change for NHSBT Logistics.



## Are You Ready to Learn More?

Aptean Routing & Scheduling can help improve your transportation operation. Find out how, now.

Contact us at [info@aptean.com](mailto:info@aptean.com) or visit [www.aptean.com](http://www.aptean.com).



### About Aptean

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