

Spirit's goods tracking system pays dividends for the Francis Crick Institute

September 6, 2017

Goods receipt and tracking plays an important role in the supply chain – and this is especially true when the goods concerned are irreplaceable research items. This is why the Francis Crick Institute took great care in developing a versatile, automated system that would replace its manual processes. This is based on Spirit Data Capture's Mobile Connect platform. The Institute's new system has already boosted the efficiency, accuracy and reliability of its stock control operations.

The Francis Crick Institute is an inter-disciplinary medical research facility. It conducts research into why disease develops and seeks new ways to treat, diagnose and prevent illnesses such as cancer, heart disease and strokes, infections, and neuro-degenerative diseases.

The institute was formed from a consortium of six of the UK's most successful scientific and academic organisations: the Medical Research Council, Cancer Research UK, the Wellcome Trust, and three higher educational establishments: University College London (UCL), Imperial College London and King's College London. Together, they've built a new, state-of-the-art research institute that's designed to encourage and develop new discoveries in the biomedical field by encouraging collaboration between scientists.

Defining the issue

The new building is nearly a million square feet and has 12 floors, which poses a host of challenges in relation to the control and movement of the various packages that come into the institute.

Francis Crick's Logistics team supports the scientific activities within the Crick Lab. The organisation's Logistics Manager, Andy Steele, realised that it was vital to have an effective system for tracking packages (including proving that they'd been delivered) and ensuring that they reached the right scientist. When Andy joined the Institute, there were no logistics systems in place at any of the legacy sites. Goods receipt tracking was carried out by manual double entry into a Procurement / Finance system. The internal tracking was paper-based and there was inconsistency in terms of the records kept.

Andy therefore started looking for a suitable internal logistics and goods tracking system that would meet the needs of this complex new building. He wanted to speed up the goods receiving process and deliver a secure audit trail for the internal movements of items after their receipt. He explains: "This is especially important for an institute like the Crick, as many of the items are extremely valuable from a research point of view and couldn't be replaced if they were lost."

The new system needed to track goods from their receipt into the institute through to their delivery to stores and laboratories, along with the ability to capture proof of delivery. Stock control modules were also required.

Developing the solution

During his search for a suitable solution, Andy Steele heard about an independent consultancy, Spirit Data Capture, while attending a Supply Chain Forum in 2014.

Spirit specialises in mobile data capture solutions for all stages of the supply chain. It subsequently hosted workshops at the Institute, bringing together a range of stakeholders from throughout the organisation.

The workshops helped the Logistics team to define the specific requirements for the new system. They also uncovered the possibility that the new system could be modified for use in stock control as well. The Institute has to process an average of some 7,000 packages entering the building each month. As a result of the workshop discussions, Spirit developed a web-based management portal and also sourced suitable Windows Mobile handheld devices – the Zebra MC55 and MC9200.

The Zebra MC55 is a lightweight, compact and rugged mobile computer that can access business applications, scan barcodes and capture images. It can be used both indoors and outdoors – it has been built to deliver outstanding levels of performance, even in harsh environmental conditions.

The Zebra MC9200 is also a rugged mobile computer, designed specifically for inventory and asset management. It's extremely versatile and offers a choice of three operating systems (with the ability to switch between systems), seven advanced scan engines and six interchangeable keypads.

The main apps were hosted on Spirit's Mobile Connect platform. The Zebra handheld terminals communicate with the web-based dashboard, which provides real-time visibility of the location of the goods, and also interfaces with third-party ordering systems. Spirit also provided its own Gold Managed Service; Zebra QLn420 mobile printers; and SOTI's MobiControl - the UK's leading mobile device management platform.

Andy comments: "I liked Spirit's solution as it consisted of core modules that could be tailored to meet the Crick's requirements. It also fitted nicely with the size and scale of our logistics operation. Despite our main building being a million square feet, there isn't a lot of storage, so a fully-blown Warehouse Management System wasn't appropriate."

When packages arrive at the Institute, they are sorted into floors, each of which have four quadrants. Mobile Connect enables the Institute to track each package's destination by using the Zebra devices to read the QR barcode, which has been applied by the Institute's third party cross-dock partner. This has key information embedded within it – including the destination, the purchase order, the line item and the quantity. This information provides automatic reconciliation with the Crick's finance system and guarantees that the right package goes to the right scientist.

Mobile Connect enables goods to be received and traced throughout the delivery lifecycle. It includes the ability to record any quality checks needed and to capture any errors by photographing damaged packages. The handheld devices are also

used to perform 'change of custody' – the handover from the Logistics team to the Lab Operations team, who take control of the packages when they reach the labs. This involves the receiver signing the Zebra's screen using a stylus and typing in their initial and surname to provide the audit trail.

Features of Mobile Connect that the team have found particularly useful include the electronic capture of the change of custody signature; the ability to print and record the surname (which has been of great help in the end-to-end audit trail); and the ability to photograph packages at any stage and to capture that information on Mobile Connect.

Spirit has also developed the stock control element to allow the small store rooms around the building to manage stock through counting, setting safety levels and providing reports to help with reordering. Mobile Connect also integrates with the Institute's Agresso ordering system via the web interface.

MobiControl also plays a valuable role within the new system. Access to the new building is restricted, and providing access to people who need to enter the building at different times can be quite challenging. MobiControl helps the Institute by enabling users to update the software and resolve any issues with the devices remotely.

Reaping the rewards

“I procured the system to work at the Crick Lab and it was ready on schedule,” says Andy Steele. “However, due to construction delays, I decided to roll the system out at two of the legacy sites and to use the interim period for a live pilot. This also enabled staff to become familiar with the new system before it was transferred into the Crick Lab - so it was effective in managing change. Spirit supported the legacy roll-out and the early stage bug fixes with timely responses and dedicated resources.”

Spirit’s automated Mobile Connect solution has led to increased speed, efficiency and reliability; greater accuracy of deliveries; reduced paperwork; and fewer manual errors. Real-time updates mean that any potential stock shortages can be averted by a rapid replenishment of the items needed.

“The MC55 and MC9200 are easy to use,” says Andy Steele. “They’re sufficiently robust to withstand rough handling in a loading bay / logistics environment. The devices are working well and are proving to be very reliable. The MC55’s in-built camera has proved particularly useful for capturing images of damaged items.”

He adds: “The support we’ve received from Spirit throughout the project has been first-class. This includes the workshops and early stage design, and helping us to capture and record our full requirements. We were able to take Spirit’s building blocks in terms of Mobile Connect so that we could produce a bespoke solution with Spirit’s help that suited the specific needs of the Institute.

“I would recommend Spirit for many reasons, particularly their ability to work with you to produce a bespoke system that suits your needs. They were very engaging with us from the early stages to help us to find a solution that was right for us. Their ability to be flexible and adaptable throughout is a real core strength. They are brilliant at guiding you to where you need to be, so that you can meet all the demands of your business. Their support has been amazing and the feedback we’ve had from the Directors of the Crick has also been positive – everyone sees this as a successful project, delivered on time and on budget.”

ENDS *(1480 words)*

Notes for Editors: Spirit Data Capture is an independent consultancy specialising in mobile enterprise solutions. Based in Sutton Weaver, Cheshire, the company has extensive experience of wireless and mobile computing technologies. It is committed to sourcing solutions that will streamline its customers’ operations and boost their productivity.

Spirit’s capabilities include software application development; hardware (including handheld and wearable devices, mobile printers and wireless infrastructure); mobile device management; wireless network implementation; maintenance; and many other services. Its extensive client base includes organisations in the utilities, field service, transport and logistics, healthcare, government and manufacturing sectors.

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