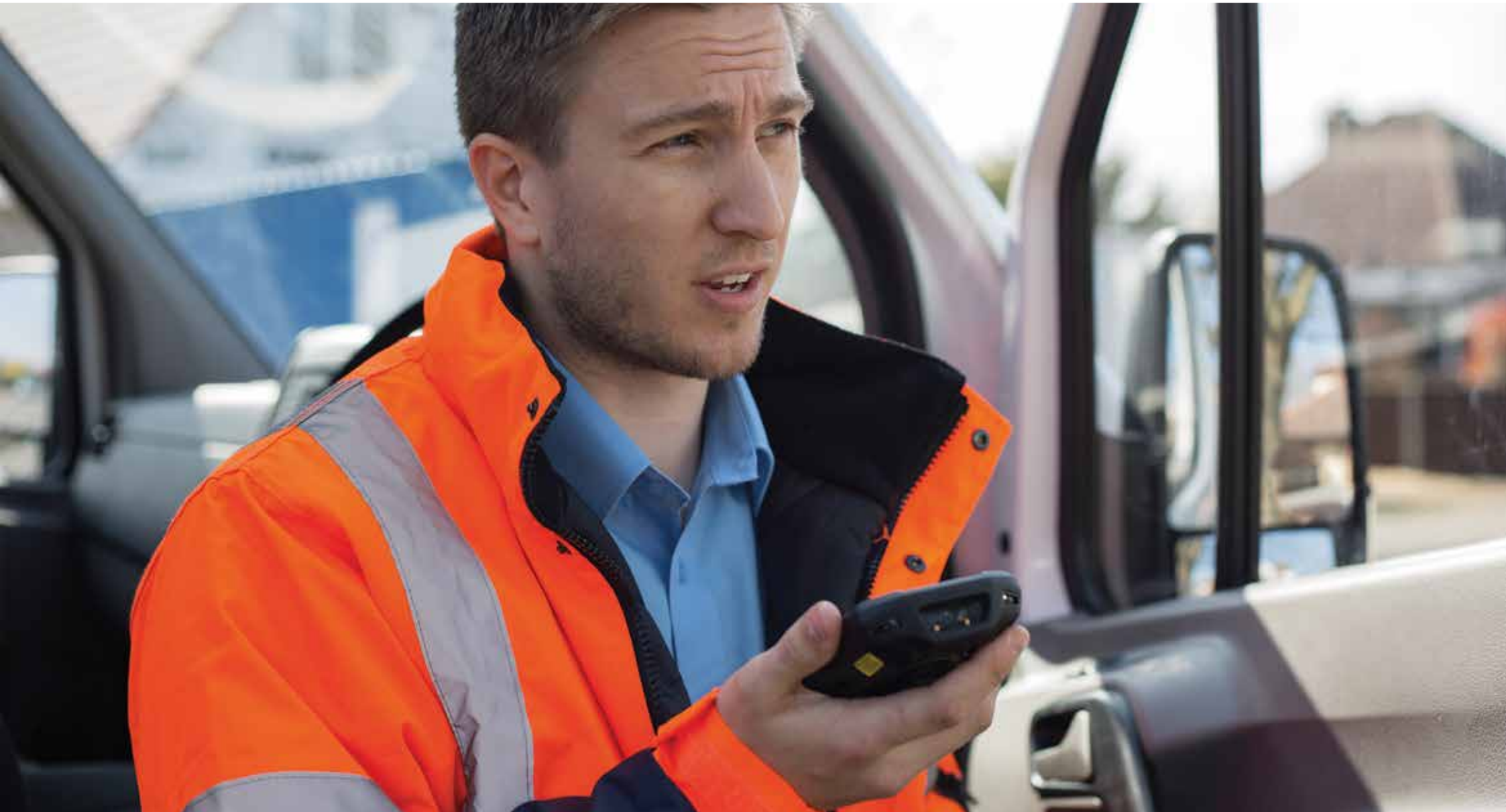


spirit[®]
DATA CAPTURE LTD

The independent
mobile enterprise
specialists

Digital transformation and the mobile enterprise



Digital transformation is one of the most widely used business 'buzz phrases' of recent years. It's a phrase which is used in many different ways but basically refers to change brought about by the use of digital technology. This itself is open to interpretation and could range from web-based software and smartphones right through to the use of big data, machine-to-machine communications and the Internet of Things (IoT).

The main change that digitisation brings is to automate traditional operations, processes and procedures. This leads to benefit in terms of enhanced efficiency, increased productivity and profitability and higher customer satisfaction levels.

The mobile enterprise

Digital transformation can bring change to all parts of the supply chain – from manufacturing right through to delivery. One key aspect of digital transformation is the development of a mobile enterprise, in which handheld devices are used for capturing data and images; communication; and transferring information.

This booklet explores how a complete mobile enterprise solution can transform the activities of almost any organisation. It includes examples of our customers whose operations have been streamlined by the use of technology.

Basic principles

A mobile enterprise has two key elements – the hardware device and the software. Handheld devices can vary widely, and include barcode scanners and imagers, personal digital assistants (PDAs), mobile computers, smartphones, tablets and mobile printers. These can have a range of different features and functions, such as integral scanners and cameras, Global Positioning System (GPS), General Packet Radio Services (GPRS) and various Wifi options, including Bluetooth.

The installation of specialist software apps on handheld devices can make a real difference to a whole range of processes. For instance, Spirit has developed an electronic Proof of Delivery (ePoD) app that has been designed to remove paperwork and speed up the invoicing of deliveries. It enables paperless vehicle safety checks and more efficient delivery routes with non-repudiation proof of delivery (via image, GPS and signature capture).

Similarly, our Inspections app automates many of the processes involved in quality assurance inspections. It provides a completely paperless system that provides high quality and consistent results, as all inspectors will be using the same, pre-defined forms and standards.

So how can this hardware and software bring about transformation in different parts of the supply chain? Here are just a few examples of the difference that technology can make.

Manufacturing

In the manufacturing sector, mobile enterprise solutions can be used to transform the speed, efficiency and reliability of the production line. An early example of this was when Spirit supplied mobile computers for BMW's engine plant at Hams Hall. These were used to automate material calls (asking the warehouse for components for the production line). The barcodes on the components were also scanned by the mobile computers to confirm that the right component had been sent to the right location on the production line. Requests for new stock were sent by radio frequency (RF) from the mobile computers to the warehouse. Consequently, the plant was able to work to very short delivery cycles.

Spirit has also provided mobile enterprise solutions for numerous food manufacturers and distributors. For instance, we installed a complete wireless infrastructure for The Authentic Food Company and also sourced mobile computers that enable the company to enjoy full traceability of all of its products. This boosted the efficiency of both the factory and the warehouse.

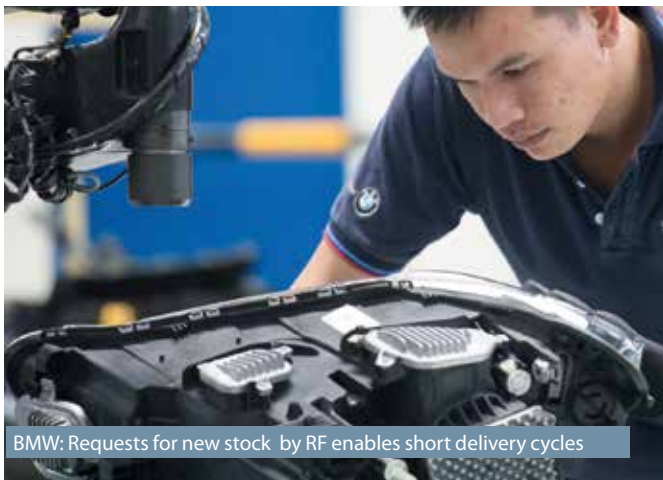
Other mobile computers were supplied to Seafish UK, which processes frozen fish products. The handheld devices were used to carry out checks during the daily production process, using the company's own software. This also captures several engineering tasks and logs the information on the database so that it can be accessed by managers at any time.



ePoD: Spirit's specialist software



BMW: Mobile computers for automated production line



BMW: Requests for new stock by RF enables short delivery cycles



The Authentic Food Company: Wireless infrastructure



Seafish: Handheld devices check production process

Warehousing

Warehousing is another area where the use of digital technologies can make a huge difference. For instance, leading transport and warehouse distributor, WH Bowker, wanted an application that would mobilise its warehouse management system in real time, eliminating manual processing and reducing human error. We developed software that covered the company's warehouse activities from start to finish – including barcoding, auditing, stock control, and health and safety – using different handheld devices for different parts of the application. These included a tablet, a long-range scanner and a printer.

We also provided a web-based management portal, which is integrated with the company's warehouse management system for the import and export of data and scheduled jobs. The solution has led to a reduction in paperwork; fewer manual errors; less time needed to complete jobs; faster invoicing; and better response and performance times.

When 151 Products, a leading supplier and distributor of a wide array of household goods, decided to upgrade its warehouse management system recently, we provided new barcode scanners and mobile printers. These are already helping to produce significant time and cost savings for the company.

Distribution and logistics

In any large manufacturing or logistics operation that involves numerous repetitive tasks, a small increase in speed can lead to large time and cost savings. Continuing with the earlier food manufacturing theme, one example is Nature Delivered, which purchased a range of different barcode scanners from Spirit – including wearable computers. These have made life much easier for the company's operators and have speeded up operations – potentially saving operators up to two hours a day in some cases.

Greenhalgh's bakery needed handheld data capture devices for its delivery drivers. We provided enterprise digital assistants (EDAs) and mobile printers, as well as the route accounting / mobile data capture software we had developed for van-based deliveries. These give the drivers all the information they need for their deliveries, and when they finish their rounds, the data is automatically transferred to the back-office system, which also updates the customers' accounts.

Meanwhile, JJ Food Service has also turned to a mobile enterprise solution to automate data collection from the truck-based deliveries it makes from its distribution centres. This has improved the productivity of its drivers and enables the firm to deliver more items with fewer trucks.

One sector that particularly relies on fast, accurate and reliable deliveries is postal companies and couriers. JBT Distribution Ltd is Scotland's leading road haulage operator. The company wanted to streamline its electronic proof of delivery capabilities. It therefore opted for our ePoD in the Last Mile software. This has been developed specifically for companies that specialise in the final stage of a delivery by taking over from a nationwide distributor. The app has led to a reduction in paperwork, fewer manual errors and less time needed to do jobs. It has also improved response and performance times.

Another distribution company, Tuffnells Parcels Express, needed an effective device management system to make sure that it could gain the best possible performance and value from its mobile devices. Spirit recommended SOTI's MobiControl, the UK's leading enterprise mobility management (EMM) software platform, as it helps to boost productivity and minimise any device downtime.

Retail

One of the key areas that affects customer satisfaction in the retail sector is the speed and efficiency of point-of-sale (PoS) operations. We upgraded the devices that Selfridges uses at its PoS operations in its London and Manchester stores. The imagers we provided were able to give a high quality performance even when faced with having to scan poor quality barcodes.

Clarks, the leading global footwear provider, has been using our mobile enterprise solutions for 15 years, including the barcode scanners we've sourced for its point-of-sale operations. These enable Clarks to deliver a consistent, effective and streamlined service to its customers.

Bowker: Spirit provided hardware and bespoke software for warehousing



Nature Delivered: Barcode scanners and wearable computers



Greenhalgh's: EDAs and software for delivery drivers



Tuffnells: Spirit recommended SOTI's MobiControl



Clarks: 15 year history of mobile enterprise solutions

Other sectors

There are many other sectors that have benefited from the introduction of technology and the automation of their processes and operations. These include facilities management; field sales and field service (we've developed specialist software for both of these sectors); utilities and telecoms; leisure, Local Authorities; and healthcare.

For instance, for the healthcare sector, many technological advances can be used to ensure better patient safety and more accurate record-keeping. Our Inspections app, for example, can be used for inspections on healthcare buildings, facilities, equipment and housekeeping. Typical mobile enterprise healthcare applications range from the use of pen scanners for reading barcodes to the use of barcodes for providing information on patient wristbands.

There are many more examples that show the power of this particular aspect of digitisation in terms of the transformation of different processes and activities. The 'ball' that is digital transformation has been set rolling – and it doesn't seem likely to stop anytime soon. Indeed, at the moment, it is continuing to gather pace and doesn't even show signs of slowing down.

For more information on the case studies mentioned in this booklet, please visit <https://spiritdatacapture.com/case-studies/>.

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Spirit specialises in delivering innovative and cost effective business mobility solutions across many industries.

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