



# Case study

Industry sector:  
healthcare

## BT improves healthcare with mobility solution

Patients get better home care from Glasgow City Council with BlackBerry-enabled care workers

“This is the first piece of modern technology to really benefit blue-collar workers.”

Brendan Murphy  
Head of ICT & Marketing  
Direct Care and Services  
Glasgow City Council

### Executive summary

Glasgow City Council provides a home care service for patients still requiring medical attention after leaving hospital. The service includes a rapid response team for patients released at short notice. Hospital staff pass on notifications of hospital discharge, and medication and care requirements to the council's Direct and Care Service Department, which relays them to the team's members.

In the past, this information was faxed from the department's central headquarters to branch offices from where it was collected. The fax system was slow, often resulting in too little time to ensure home care provision for patients set for release at short notice. The result: hospital stays were being extended and beds were being taken up unnecessarily.

Furthermore, it was creating a degree of paperwork that reduced the time carers were spending on home visits.

In a half-year trial, rapid response team members carried BlackBerry handheld wireless devices so patient information could be emailed instead of faxed, and a new HP server was fitted at the department's office. The results included reduced hospital bed blocking, and savings on service delivery that could be used in hospital care.

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“The BlackBerry is a big hit. We can do our job better and it improves the delivery of the Council’s home care services to those who require it the most. They take us to a new level of efficiency in an area where responsiveness is critical, especially when the pressure is on.”

Kathy Hogan  
Rapid Response Carer  
Glasgow City Council

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### Marketplace

Glasgow City Council is the largest local authority in Scotland serving more than 650,000 citizens. Like other authorities, though it has a constrained budget, it is under pressure to meet government targets for level of service. One of its responsibilities is a home care service that reaches 8,000 people daily, most of whom are elderly. This service comes under the remit of the Direct and Care Services Department, which employs 2,600 home care staff.

Out of all the home care staff, 260 are members of the rapid response team, which is split into 130 groups of two, and has an annual budget of £27.5 million. Team members work under the ‘home from hospital’ scheme, putting in place residential care systems before patients are released.

Rapid response personnel are in close communication with nurses and ward sisters. They work together, sharing patient information so a tailored home care system can be put in place ready for the patient’s release. Both parties knew the existing fax-based method of sharing patient information took too long.

### Business opportunity

Communications between hospital staff and members of the rapid response team were poor. Patients’ care instructions were faxed to team members via the Direct and Care Services Departments head office in Blair Court, which sent them to its local branches for collection. This delay hampered the quick preparation of a patient’s home. In some cases, there would be insufficient time, and they would have to remain in hospital, causing distress to the patient and tying up a hospital bed unnecessarily.

In addition, there were often repeat trips to branch offices to pick up faxes as patients’ needs altered regularly. Giving information over the phone was not an option because it carried the risk of misunderstanding, which could be a matter of life or death if it involved medication. A list was drawn up of urgent improvements to be completed within a strict budget. It covered a cut in bed blocking, a reduction in paperwork, and an increase in carer visits per patient. The council believed that adding technology to the service would help it meet Government national care standards.

## BT solution

A past bid at improving communications between the rapid response team and hospital staff had failed. Team members had tried out Compaq IPaq handheld PDAs but found them confusing, as the general level of computer literacy among them was low. A new £5,000 pilot scheme involving 10 BlackBerry terminals was initiated with the hope that the devices would be easier to use.

Both Vodafone and T-Mobile put in bids alongside BT with Glasgow City Council to offer the BlackBerry service. However, BT was chosen. The authority was impressed with BT's commitment to resolve any teething problems during the scheme, and to the security of the system which would be transmitting patients' medical details.

Once BT was given the green light, and the decision was taken to extend the trial from one month to six, the global IT and networking services company paid for a £1,200 HP server to deliver the email messages to the BlackBerrys. Using a new server instead of an existing server ensured that there was no interference with other departmental email.

The local authority paid £3,800 for ten BlackBerry 5820s, six of which were used by rapid response team members and four by direct and care services senior management. The devices were supplied by mmO2, BT's partner in the scheme. The mobile service provider also ensured technology support services, and the devices ran on its GPRS network. It meant team members no longer had to make frequent trips to their local branches for faxed communications from hospital staff. They could spend more time visiting patients, and organising home care for patients about to be released. They had to visit the branches only in the evenings to do administrative work.

"This is the first piece of modern technology to really benefit blue-collar

## Why BT?

- BT took time to work with the customer to resolve teething problems during the pilot phase
- BT was able to offer assurance on the security of the BlackBerry solution
- The BT solution included the HP server necessary to deliver email messages to BlackBerrys. Using a new server ensured that there was no interference with other departmental applications

workers," says Brendan Murphy, Head of ICT & Marketing, Direct Care and Services, at Glasgow City Council.

The BlackBerry devices were seen as being at the forefront of wireless technology. The model chosen by the council had a backlit qwerty-based keyboard, thumb-operated track wheel, backlit monochrome screen, menu driven interface and embedded wireless modem. They could also last up to four days without recharging the batteries.

Because the handheld is permanently on, tuned continuously to a wireless network, emails could be read without the need to dial in through a modem. They also gave team members mobile phone functionality, with additional services such as call waiting, conference calling, and call forwarding. Furthermore, it could act as a personal organiser, providing access to a calendar, address book, memo pad, and to-do list. Once back in the office, team members were able to synchronise the information on their BlackBerrys with that on their PCs.

"This is another initiative to help alleviate bed blocking in Glasgow hospitals," says David Melvin, deputy director for the council's Direct and Care Service Department.

## Results

New efficiencies since the introduction of the handhelds have resulted in better patient care. Rapid response members have been able to meet requests for care quicker. If an elderly person in hospital has been given the go-ahead to return home, members can be contacted immediately and act promptly, potentially freeing up beds for more needy patients. Such faster responses are now seeing hospital time for old people reduced by a year to 18 months.

Also, they have been able to cut down the number of daily visits to their branch offices. This has meant that instead of only having time to make two or three home care visits a day, they can make four or five.

David Melvin says: "It means improved turnaround times between notification of hospital discharge and setting up appropriate home care, and better communication between hospital, office and frontline home care staff."

According to Kathy Hogan, one of the Council's rapid response carers: "The BlackBerry is a big hit. We can do our job better and it improves the delivery of the Council's home care services to

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those who require it the most. They take us to a new level of efficiency in an area where responsiveness is critical, especially when the pressure is on.”

Running costs for the service have also been cut. No longer needing to keep returning to their offices has meant carers use less fuel, cutting travel costs. On top of this, through reduced paperwork, stationery expenses have been cut. There have also been reductions on mobile phone costs.

BT now hopes to win a £50,000 contract to supply up to 150 BlackBerrys to Glasgow City Council employees. The council’s goal is to get all 130 rapid response teams equipped with the devices and then look to extend the technology to other areas such as cleaning and disinfecting teams and window cleaners.

### Technology blueprint

The BlackBerry 5820 measures 117mm x 78.5mm x 18mm and weighs 133 grams. It contains 8MB of flash memory and 1MB of SRAM. Incoming emails can be indicated by a tone, vibration or on-screen LED alert.

The user can choose whether to have a 13, 16 or 20-line display. The user interface uses intuitive icons and menus and the whole device is password protected. 3DES encryption security for protected data transference is also included. Downloading emails is quick, as it uses the fast GPRS network supplied by mmO2.

The internal rechargeable lithium battery can last for ten days on standby. Even with normal voice and email usage, a fully charged battery can last up to three to four days without recharging. The unit offers four hours of talk time.

## Main BT products & services

BlackBerry® is a leading wireless connectivity solution, providing access to a wide range of applications on a variety of wireless devices around the world. It combines award winning devices, software and services to keep mobile professionals connected to the people, data and resources that drive their day



### Offices worldwide

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