## >> The Power of Mobile Peripherals

**Companies are extending the value of their BlackBerry solutions by adding peripherals that automate data collection, improve accuracy, and lower costs, among other benefits.** By Beth Schultz

**FROM THE BOARDROOM TO THE FACTORY FLOOR** and out in the field, corporate workers the world over consider the smartphones they have tucked in their pockets, zipped away in their briefcases, or clipped to their belts to be must-have business productivity tools. With smartphones at their disposal, employees have the power of instant connectivity by voice and email and, increasingly, to mobility-enabled business applications.

In and of itself, the smartphone has proven to be a powerful business enabler. With instant access at their fingertips, workers who have smartphones are far more productive and efficient than was previously possible. Now companies are finding that they can further capitalize on a smartphone's value by enhancing the deployment with handy peripherals and matching applications.

Add-on options for the BlackBerry® smartphone from Research In Motion (RIM) are plentiful. A number of peripheral makers have partnered with RIM through the BlackBerry Alliance Program, offering business basics such as barcode scanners, digital pens, point-of-sale terminals, printers, signature capture pads and smartcard readers. Innovation is rampant, too, with newfangled devices such as personal safety dongles, vehicular dashboard monitors and video projectors in the offing.

### Extending Value Through Peripherals

Companies that have begun integrating peripherals into BlackBerry smartphone deployments report myriad benefits, including improved inventory management, speedier and more accurate order entry, reduced billing cycles, better customer service, increased worker productivity, and lower costs. These improvements come mostly as companies use the combined solution to eliminate manual paper processes. As one RIM partner says, "A lot of work that used to get done on clipboards and three-part forms can now live on a BlackBerry smartphone and be further enabled by devices like barcode scanners."

Enhancing the BlackBerry smartphone's value proposition through peripherals also serves the all-important "do more with less" best practice that companies have embraced as they tough out the tight economy. "At the end of the day, there's greater value to having a BlackBerry smartphone with a peripheral than buying a purpose-built device like a customized barcode scanner because the company isn't limited to just scanning. With the BlackBerry solution, they can also email, check their calendars, and so on. Plus, the company can secure and manage the BlackBerry devices," says Tyler Lessard, vice president of global alliances and developer relations at RIM.

### Enhancing the Field Experience

Besides the growing sophistication of the BlackBerry smartphones and peripherals, a key enabler for this type of solution is the Bluetooth® open wireless protocol. In a typical deployment, the peripheral gathers and then communicates data to a third-party application on the BlackBerry smartphone. The application automatically updates, and often uploads the information in real time to back-end systems. Depending on the type of peripheral, data gathered could be a credit card number, a part or product code, or a digital signature, for example. In any case, the data flows between the peripheral and the BlackBerry smartphone using Bluetooth technology.

Opportunities for BlackBerry peripheral solutions are particularly plentiful for, although not limited to, field service operations.

At Otto Bock, for example, a BlackBerry smartphone plus a digital writing system has helped improve the way service representatives capture information and signatures from patients as they visit them in hospitals, homes and rehab centers throughout the United States. Service reps at this leading provider of specialty rehabilitation products and services traditionally had to fill out paper forms, obtain patients' signatures, and then mail, fax or send the documents via courier to the field office. Invoicing could not begin until the field office received the documents, at times as many as six days after the visit.

"We wanted a way to speed up the way documents were exchanged. Patient liaison administrators, who receive the documents, were spending too much time tracking down misplaced paperwork, and that caused delays and lost revenue," says Dominic D'Arpino, project applications manager at Otto Bock, in a case study.

Because key personnel already used BlackBerry smartphones, Otto Bock IT executives wanted to find an application that would run on those devices. Otto Bock IT professionals figured that leveraging the BlackBerry solution would minimize the project cost as well as management headaches.

The IT team found the Digital Writing System from ExpeData LLC, one of many RIM peripheral partners. With a special digital pen, service reps now handwrite forms as they always have, but are doing so on digital paper. A camera inside the digital pen records the movement as it corresponds to invisible microdots on the digital forms.

Via Bluetooth, the pen sends the digital record to the ExpeData application on the BlackBerry smartphone. From there, the data is sent to ExpeData, a hosting provider, for processing. Once that's finished,

Otto Bock's **Dominic D'Arpino** now considers the BlackBerry smartphone "a hub and spoke—one BlackBerry smartphone that can handle a multitude of accessory applications."

## Cool Tools for Personal Use

CONSUMERS CAN FIND FUN WAYS TO GET MORE VALUE OUT OF THEIR BLACKBERRY SMARTPHONES, TOO. HERE ARE FIVE EXAMPLES.

| Peripheral or Application | Description | Vendor |
| --- | --- | --- |
| AV/Shadow | Transforms a BlackBerry smartphone into a universal remote control for home audio/video equipment | Unify4Life Corp. |
| iLane | Lets users control their smartphones using simple voice commands when inside their vehicles | Intelligent Mechatronic Systems Inc. |
| Liberty | This USB key and software provide users with the features of a BlackBerry smartphone on a regular computer screen and keyboard | Bayalink Solutions Corp. |
| Schlage LiNK | Allows users to monitor and control door locks, lights, thermostats and security cameras from a BlackBerry smartphone interface | Schlage |
| Sling Player Mobile | Lets users watch and control a home TV and DVR via their BlackBerry smartphone | Sling Media |

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ExpeData sends the forms to the Otto Bock database.

With this easy-to-use and familiar process, service reps each save up to two hours per week in time previously spent getting the paperwork into the office. Plus, Otto Bock can issue bills more quickly because it gets forms faster, with fewer mistakes.

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overtime payments by $1,500 to $3,000 a month while increasing crew leaders' productivity by 20 hours a month and streamlining job administration.

Thompson Grading gave each crew leader a BlackBerry smartphone and a Bluetooth barcode scanner. As employees arrive at their job sites, the crew leaders scan employee IDs. Comet Tracker, GPS location-based tracking software for the BlackBerry smartphone, "geostamps" the data with latitude, longitude and time information before pushing it out to back-end payroll and billing systems.

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**—Shanna Fields,** CFO, Thompson Grading

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**Simplicity with Scanners**

Another RIM partner, Infinite Peripherals Inc., is finding an uptick in its BlackBerry solution offerings within the medical field, too, says Jeffrey Scott, vice president of sales and marketing for the company. He describes one scenario in which a barcode scanner and printer combine with the BlackBerry smartphone: Within a hospital, a nurse scans a patient's wristband and then prints out a label with the data and puts it on a specimen needing lab work. "Mobility has been key in a lot of these areas because it eliminates delay, as well as the possibility of a mix-up that might result from having to go to a different station to print the label or read a handwritten label," Scott says. "This type of solution is successful in any business environment that has a chain of custody."

Another scanning example is Thompson Grading, a midsize land grading contractor for commercial building projects. With its BlackBerry peripheral solution, the contractor reports reducing

"We went with barcode scanning and BlackBerry because it's simple and one step—everything changes daily in our business and we didn't want to have people keying in lots of information," says Shanna Fields, CFO of Thompson Grading, in a case study.

Microvision Inc., one of many RIM partners with barcode scanners, has seen increased interest in its peripherals from the "gray collar/white collar" set, says Jon Baugher, senior account manager at the company. "There is an emerging trend where there are more field personnel needing to collect data and get it into their smartphones," he says.

He gives an example of a printer technician going into an office to do preventive maintenance on copy machines. After scanning the barcode that's on the copy machine, the technician receives data on his or her BlackBerry smartphone providing details of the last maintenance work and information on what parts have previously been replaced. If the technician needs to order new

parts, he or she would scan the parts while doing the work and the data would upload to the BlackBerry application. The application, in turn, would send the order in real time to the home office.

"This improves accuracy, speed, time to order—all those types of things," Baugher says. "And it can extend to any field force workers in similar lines of work—repairing, inventory control, tracking—it all pertains."

Improved morale also can be a positive side effect of giving field workers a BlackBerry peripheral solution. Outfitted with sleek BlackBerry smartphones and barcode scanners rather than rugged, oversized custom devices, delivery personnel have a whole new attitude toward their work, for example.

"Drivers feel valued because they've received the same nice devices that top management uses," explains Marek Kowalewski, sales director for EMEA at Baracoda, "And, they take good care of the BlackBerry smartphone because it also contains their personal information, like appointments. Technical directors leading these projects have been positively surprised by this unexpected benefit."

Of course, putting more capability at employees' fingertips isn't limited to field workers and service personnel. Many RIM partners offer peripherals for use by office workers or for targeted applications such as safety. Imagine these uses:

- In preparation for an off-site employee meeting, a department head stores a video message from the CEO on his BlackBerry smartphone. On-site, the manager uses a projection device to play the message on a wall screen large enough for all to see.

- Off-premises fundraisers handle mobile credit-card transactions using smartcard readers, barcode scanners and forms input. This BlackBerry solution reduces loss from unauthorized donations plus improves operational efficiency and data accuracy.

- Drivers use BlackBerry peripherals to scan ID badges as students get on and off school buses. This allows the school to verify a student's whereabouts, and provides peace of mind to parents.

- A solo worker in a hazardous environment wears a safety dongle around his neck. The dongle captures movement and signals the BlackBerry smartphone. Should movement stop, the application sends out an alert notifying a supervisor that the worker may be in trouble.

- A transportation company commits to a major green initiative. It installs specialized route trackers in its commercial vehicles and sends data on key factors such as idling and emissions to a BlackBerry application, which in turn ties into the back-end system. The automated data collection helps prove the effectiveness of the program.

- A police officer uses a fingerprint scanner connected to a BlackBerry smartphone to verify the identity and check for outstanding warrants of the perpetrator before even leaving a crime scene.

Baracoda's Kowalewski sums up the opportunity: "When we started working with RIM, we very often got the reaction from integrators and end users of, 'Oh! I didn't know you could do such a thing with a BlackBerry.' Now what we see is that the average time between start and rollout of a project has been reduced by 20% when a BlacKBerry device is involved with a Baracoda scanner."

From biometrics and beyond, the peripheral innovations will continue, especially as companies explore ways to eke more value out of the BlackBerry solution they've already got in place to handle mobile email and application access.

**BETH SCHULTZ** *is a Chicago-based freelance writer and former special issues editor at* Network World. «

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