

The Popularity of Blackberry Software - Why the Fuss?

BlackBerry handheld integration into an organization's e-mail system is provided through a software package called "BlackBerry Enterprise Server" (BES). Versions of BES are available for Microsoft Exchange, Lotus Domino and Novell GroupWise.

Individual users can often use e-mail services provided by the wireless provider and therefore may not be required to install a BES server on their local network, but organizations that have multiple wireless users usually run BES on their own network. While it can be very expensive having an own BES, third party companies like GPXS provide hosted BES solutions. These are solutions with the advantages of an own BES, but without the costs.

BES can act as a sort of e-mail relay for corporate accounts so that users always have access to their e-mail. The software monitors the user's local "inbox", and when a new message comes in, it picks up the message and passes it to RIM's Network Operations Center (NOC). The messages are then relayed to the user's wireless provider, which in turn delivers them to the user's BlackBerry device. This is called Push procedure, where the mobile user doesn't have to synchronize the data by hand. All new e-mails, contacts and calendar entries are pushed to the BlackBerry device automatically. Device storage also enables the mobile user to access all data offline in areas without wireless service. As soon as the user connects again, the BES sends the latest data. This way the handheld is always up-to-date.

BES also provides handhelds with TCP/IP connectivity that is proxied through a component called "Mobile Data Service" (MDS). This allows for custom application development using data streams on BlackBerry devices based on the Sun Microsystems Java ME platform.

In addition, BES provides security, in the form of Triple DES or, more recently, AES encryption of all data (both e-mail and MDS traffic) that travels between the BlackBerry handheld and a BlackBerry Enterprise Server.

The universal and push-based connectivity of the BES/MDS infrastructure are among the most valuable aspects of Research In Motion's product. An organization can have devices on different carriers, and connected through different cellular network protocols, all functioning in an integrated fashion.

Most providers offer flat monthly pricing for unlimited data between BlackBerry units and BES, which also enhances the value of the MDS component. In addition to receiving e-mail, organizations can make intranets or custom internal applications with unmetered traffic.

With more recent versions of the BlackBerry platform, the MDS is no longer a requirement for wireless data access. Beginning with OS 3.8 or 4.0, BlackBerry handhelds can access the Internet (i.e. TCP/IP access) without an MDS - previously only e-mail and WAP access was possible without a BES/MDS. The BES/MDS is still required for secure e-mail, data access, and applications that require WAP from carriers that do not allow WAP access.

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Joe enjoys both worlds: the high tech and more laidback world of yesterday. For his latest blackberry software blog, see:

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