MOBILE APPS FOR THE ENTERPRISE
What’s behind the app gap?

You don’t need anyone to tell you that mobility is critical to enterprise productivity, collaboration and profitability. You realize, too, that the strategic, long-term value in mobility lies in applications. Desktop apps (like Sharepoint, LiveLink and SAP) where data resides behind the corporate firewall, have been driving business for years now, and making those apps move — literally — is where it’s at.

But if you’re like many of your peers, you’re disappointed at the mobile application toolkit your enterprise is able to offer its employees today.

While apps have dominated the consumer world in the last several years, they’ve failed to penetrate the business arena to the same extent. Despite the fact that enterprises are embracing mobile, and are even starting to think ‘mobile first’, the majority of those businesses are still only enabling the basics, like calendars, contacts and email.

The result is what Forrester calls an ‘app gap’. A gulf between the tools mobile workers need and the tools they’re able to access. But if leading CIOs are aware of the problem, and we know they are, what’s been preventing them from correcting it?

The answer is complex — there are several factors at play. Let’s get specific.

A recent survey of CIOs shows that on average, companies have more than 400 custom and packaged applications within their organization. Yet today, only 22% of enterprise apps can be accessed from mobile devices — email, PIM, calendar and a few others.¹
Research suggests that security is the top challenge preventing enterprises from mobilizing more applications. Organizations are particularly concerned about the way data moves from behind the corporate firewall out to mobile devices and back again. It only makes sense, given that the data that enterprises apps transmit is often highly sensitive.

For many organizations, especially those in finance, healthcare and government – protecting that data is what matters most. Lives and livelihoods can be at stake. Even when they’re not, no business can afford the impact of a serious security breach, whether that impact is measured in dollars, brand damage, competitive position or shareholder confidence.

To safeguard the data that apps transmit, many solutions resort to session-based Virtual Private Networks (VPNs).

It may sound counterintuitive, but VPNs weren’t built for true mobility scenarios. They were built to allow workers to gain secure remote access from a fixed location like their home or a hotel room. And yet, traditional VPN connectivity is still required for most mobile app deployments in the enterprise.

This is a problem. In fact, WIRED predicts that in 2014, “VPNs and agents [will] begin to disappear.”

“Mobile devices access more enterprise services each and every day, and the way most enterprises protect data as it travels from applications to mobile devices is through a VPN. However, even simple to use VPN clients have their issues, such as reduced battery life, misconfigurations and connectivity issues. As everything from tire pressure gauges to soil sensors to fitness monitors connects to the Internet, new ways to encrypt wireless data traffic will emerge. The agent-based approach will start to be phased out in 2014.”

Growing Security Concerns
Source: Forrester Mobile Survey, Q2 2013

2013, Forrester asked IT decision makers: What challenges, if any, does your firm face when developing and managing smartphone/tablet applications and devices?

- Securing the apps and data: 56%
- Providing device security: 54%
- Managing devices for both personal and corporate use: 40%
How does BlackBerry address this challenge?
A VPN designed for mobile.

As WIRED observes, there are downsides to a traditional VPN scenario. A lot can go wrong with each session — and frequently does. It’s not just a question of security. Productivity suffers too.

BlackBerry® Enterprise Service 12 (BES12) solves the VPN issue by replacing traditional session-based VPNs with a VPN connection designed exclusively for mobile. It’s called BlackBerry® Connection Service. iOS and Android™ devices can leverage the same secure, mobile VPN connectivity as BlackBerry® smartphones, through a secure containerization strategy for work apps (called Secure Work Space, available with Gold Level EMM licenses.4)

BlackBerry® Connection Service provides enterprises with an ‘always-on’, bi-directional VPN tunnel into their infrastructure that conforms to the FIPS 140-2 encryption standard, so they don’t have to worry about people stealing data out of the air. This mobile-first VPN also takes care of the other problems that crop up with traditional VPNs: issues with user and credential management; configuration management problems; dropped connections; high license costs for mobile; non-corporate apps gaining VPN access; unsecure end-points accessing the network via VPN; least cost routing of company data; and battery drain.

BlackBerry Secure Connectivity
Find out more about the differences between traditional VPNs and BlackBerry Connection Service in this 4-minute video.5

WHAT ‘MOBILE FIRST’ ENTERPRISES ARE ASKING THEMSELVES NOW

› How do we ensure we can boost productivity without lowering our guard security-wise?
› How do we efficiently develop apps that work on all the platforms our employees choose?
› How do we shorten app design and development cycles so we can consistently strike while the iron is hot?
› Do we add more features to an app or support more platforms?
› How do we overcome all the mobile application management (MAM) obstacles that IT continues to flag?
› How do we deliver a first-rate user experience — to ensure uptake and ROA (Return on Application)?
› Do we establish/maintain in-house skill sets for custom app development, or turn to partners? Which partners are right for our needs?
› Do some app development platforms reduce our requirements for outside help?
Some app data needs to reach its destination in near real-time. Alerts for IT failures, for example, where every additional second of downtime costs the enterprise more money. Or the alarms nurses receive when a patient’s heart rate drops, where seconds can mean the difference between life and death. Enterprises have learned (often, the hard way) that polling every few minutes simply isn’t good enough.

Another major challenge: what happens when users are offline or have no network access? As apps become increasingly mission-critical, mobile workers need anytime, anywhere access to the freshest available data. And IT needs to ensure that data consumption, even for those critical apps, isn’t going to drive mobility costs sky high. Enterprises have struggled to know how to make all this happen.

How does BlackBerry address this challenge?
**Push/Sync: Efficiently moving data where it needs to go, ASAP.**

TechCrunch notes that “push notifications aren’t an entirely new phenomenon, but as mobile handset growth continues to accelerate (along with faster handset releases), push alerts only grow in importance as a channel for applications to communicate with and re-engage users.”

Push technology — which sends data to a device without the device having to request it — has some real advantages. It’s a great protocol for delivering information in real-time and keeping mobile users connected. Immediate delivery means your mobile workers never have to wait until the next polling cycle for updates.

BlackBerry® push technology lets you send up to 8KB of data (images, text, or audio) to BlackBerry devices as soon as it’s available. If larger amounts need to be delivered, you can either send multiple 8KB items and join them together on the device, or an 8KB element that triggers the device to pull larger quantities of data.

Let’s say you’re running an app that delivers daily business intelligence data to your CFO. She’ll receive a push notification as soon as the data is released, and can tap the notification in her inbox to invoke the app that will pull the data for the dashboard.

Using this reliable push mechanism, your application can notify the server when the data arrives at the device. If your CFO is out of coverage, this means, you can guarantee delivery when she reconnects.
It hasn’t been easy for enterprises to get apps to the right people, to make sure specific employees know about the apps they should be using, or to guide them away from the apps that could pose a risk to the corporate network. When apps are updated or reach the end of their natural, useful life — retiring them poses a new set of difficulties as well. Similarly, when mobile device operating systems are upgraded, apps need to be redeployed or re-tested — and in BYOD scenarios, OS up-issues happen all the time, across the various devices platforms users bring to work.

Enterprises tend to lack the know-how to deal with this complexity.

As Information Week puts it:

“As a result of having fallen into app development as a business necessity, [enterprises] are typically lacking in basic app dev lifecycle skills such as product definition, product management, quality assurance, back-end data integration, and security and compliance. To create some order out of this potential mobile app chaos, a systematic, full-lifecycle approach is needed.”

How does BlackBerry address this challenge?
Making MAM and MALM painless for IT and users.

Through BES12, you can seamlessly manage and curate a customized corporate app storefront, available only to your employees. Through this storefront you can push and install mandatory apps and publish recommended apps to BlackBerry® 10 users, whether these apps are publicly available (like Box, Podio or Cisco WebEx) or ones you’ve custom-developed. This way, users have easy access to the apps they need to optimize their efficiency and productivity. At the same time, they’re able to access and download personal apps and games to their Personal space, safe and separate from their work life. You can also choose which apps get deployed to various groups of employees, which gives you control over app instances and versions.

But BES12 makes it easy to get the right apps out to all employees, across multiple platforms.

So, from the same BES12 administration console, you can publish public apps to all the devices you manage, including iOS and Android (with Windows Phone support coming soon). You can also securely wrap and deploy enterprise apps to the Secure Work Space on iOS and Android devices (with Gold level EMM licenses). Application wrapping is simple and fast and enables an unlimited number of internal apps to be deployed to individuals or groups of users. Security-wrapped 3rd party apps can also be deployed to the Secure Work Space to enable optimum employee productivity and efficiency. And just like their colleagues on BlackBerry 10 devices, iOS and Android users can download and access personal apps, games and media to their Personal Space, safe and separate from their work life.

Lastly, powerful and intuitive dashboards and reporting provide simple ongoing application lifecycle management and compliance across all managed devices.
In a study of 348 organizations, Aberdeen Group found that organizations are often “overwhelmed by choices: device type (tablet, smartphone or wearable); operating system (iOS, Android, Windows Phone or BlackBerry); operating system version; and application type (‘native’, HTML 5 or hybrid). In addition, there’s a wide variety of software development tools and frameworks available, with an average of 2.8 mobile app development frameworks already in use at each organization.”

With at least eight major app stores catering to various mobile operating systems having launched in the last five years, it’s no surprise that enterprises have been paralyzed by the proliferation of app dev tools and languages. Even some of the MDM/EMM providers, who claim to enable enterprise applications, require devs to learn their tools in order to build, manage, and secure mobile applications. In part, this is why developers are increasingly turning away from closed, proprietary systems in favor of open standards. Enterprises are right to look for simplification and consolidation in app development and distribution frameworks. For example, HTML5 allows app developers to streamline processes, making only minor code changes to tailor an app to each relevant platform. In 2014, enterprises are moving toward environments that feature cross-platform tools and have the flexibility to support native, Web and hybrid app development efforts.

How does BlackBerry address this challenge?

Open Standards: Allowing developers to choose

Choosing the right app development path is key to delivering effective cross-platform enterprise applications. BlackBerry 10 is an open platform that provides a variety of development languages and runtimes designed to fit developers’ particular skills.

These include:

- Native applications for BlackBerry, iOS and Android
- Cross-platform tools: C/C++/Qt, HTML5, (supported on all platforms), JQuery, Phonegap/Cordova, Sencha, Marmalade, and many others

A behind-the-firewall, cross-platform emergency contact list. Built using Sencha Touch.
Building highly integrated and engaging mobile business apps has never been easier. Our partnerships with the leading enterprise software vendors and our support of open-standards and open-source app development frameworks means you can efficiently and effectively mobilize and deploy your own business apps. Our helpful developer community and user-friendly development platform provide the support, tools and APIs to help you easily build apps that are integrated into the core features and experience of BlackBerry 10 – such as BlackBerry® Hub, Calendar and Contacts – putting you right in the heart of the user experience.

The Cascades SDK gives you a full set of native UI elements that help make your app look and behave like a part of the BlackBerry 10 experience. So users flow through information intuitively and quickly keeping them connected and more productive. Pre-built code libraries for those elements are also available for WebWorks®, making app development easy no matter what language you prefer.

Buttons, fields, screen transitions and more can all be added to your app with minimal development effort, and each element provides hooks that let your app listen for standard events (touch, click and toggle) and properties to allow you to customize them to suit your specific needs.

And with secure connectivity built-in to BlackBerry 10 devices connected to BlackBerry Enterprise Service 12, your apps can seamlessly connect to systems and data sources that sit behind the firewall within your business.

Gartner’s Top 10 Strategic Technology Trends for 2014: Apps Must Get ‘Smaller’

Gartner predicts that through 2014, “improved JavaScript performance will begin to push HTML5 and the browser as a mainstream enterprise application development environment. Apps will continue to grow while applications will begin to shrink. Apps are smaller, and more targeted, while a larger application is more comprehensive. Developers should look for ways to snap together apps to create larger applications. Building application user interfaces that span a variety of devices requires an understanding of fragmented building blocks and an adaptable programming structure that assembles them into optimized content for each device.”

Building highly integrated and engaging mobile business apps has never been easier. Our partnerships with the leading enterprise software vendors and our support of open-standards and open-source app development frameworks means you can efficiently and effectively mobilize and deploy your own business apps. Our helpful developer community and user-friendly development platform provide the support, tools and APIs to help you easily build apps that are integrated into the core features and experience of BlackBerry 10 – such as BlackBerry® Hub, Calendar and Contacts – putting you right in the heart of the user experience.

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Why Mobile App Developers Choose BlackBerry

MindLink Software
An enterprise collaboration app for Microsoft Lync that can run on iOS and BlackBerry 10 devices, MindLink for SECTOR (developed by MindLink Software) is now available within Secure Work Space on iOS devices managed by BES12.

MindLink is a collaboration platform that provides access to Presence, Instant Messaging and Persistent Group Chat leveraging Microsoft Lync. Secure, compliant and fully integrated, MindLink enables collaboration on-the-go that improves team efficiency and productivity.

We asked Ben Osborne, MindLink’s Lead Engineer, about his team’s BlackBerry 10 app development experience. Here’s a sample of what he had to say:

› “BlackBerry came to MindLink and gave a half-day workshop when BES12 was launching. It really helped to get everyone up to speed right away.”

› “One of the key advantages in developing for the BlackBerry platform is the fact that true, native containerization encryption exists already on the device and for data in transit, so we don’t have to worry about dealing with additional systems.”

› “Because iOS is relatively new in the enterprise, everyone is doing things differently. When we put our app in the hands of enterprises that aren’t using BES12 for EMM, we have to spend a lot more time understanding how the customer is trying to prevent data loss on iOS devices. It’s much easier to architect with BlackBerry.”

Find out more about MindLink Software at www.mindlinksoft.com or follow @mindlinksoft

IT Manager
ITmanager.net is a mobile-first software company that produces a suite of integrated mobile apps for IT Administrators to manage their networks and servers from their smartphones. IT Manager is an all-in-one enterprise server administration tool, allowing you to monitor and manage all your critical IT servers from your mobile device.

We asked company president David MacFarlane about IT manager’s experience developing for the BlackBerry 10 platform. Here’s what he told us:

› “Many of our customers use BlackBerry smartphones and we’re in constant contact with BlackBerry to improve our product. Most of the employees at ITmanager.net have been working with BlackBerry for at least the last 10 years.”

› “Many BlackBerry customers use the IT Manager mobile app and, in fact, many BlackBerry IT employees also use the app. What’s great for us is that we get feature requests and bug reports from BlackBerry customers and from BlackBerry employees. We feel like they know our app inside out.”

› “Many BlackBerry customers chose BlackBerry because of the enhanced security, which works well for a mobile app like ours because security is hugely important when IT administrators are making changes to a company’s network and servers. Our developers also like the ease of use of the BlackBerry 10 development environment for building BlackBerry apps quickly.”

Find out more about IT Manager at ITmanager.net

“Beyond the technical support, we’ve been able to tap in to the BlackBerry marketing, storefront operations, developer relations and PR teams.”

David MacFarlane
President, ITmanager

Visit developer.blackberry.com and start your custom development project today.

“At BlackBerry, we have a single point of contact for our technical development questions. He’s skilled enough to be able to help right away, and when he can’t, he quickly brings in another expert to keep things moving developmentally.”

Ben Osborne
Lead Engineer, MindLink
Gold level EMM provides the management and control feature set for BlackBerry 10 devices previously known as EMM Regulated, and also covers the containerization option for iOS and Android known as Secure Work Space for iOS and Android.

Available at: http://bizblog.blackberry.com/2013/08/blackberry-connection-service-video/

Available at: http://techcrunch.com/2013/10/13/the-precise-art-of-mobile-push-notifications/

Available at: http://www.informationweek.com/it-leadership/how-to-master-the-enterprise-mobile-app-lifecycle/d/id/1110952?

Available at: http://www.gartner.com/newsroom/id/2603623