



Planning to Implement BlackBerry

Contents

Executive Summary	1
Defining the Project Goals and Objectives	1
Considering the Business Benefits.....	1
Considering the IT Benefits.....	1
Determining Project Scope.....	2
Establishing a Project Team	2
Ensuring That Resources Are In Place	2
Creating a Project Roadmap.....	3
Analyzing and Assessing the Environment.....	3
Understanding the BlackBerry Enterprise Server.....	3
Understanding the Native BlackBerry Features.....	3
Considering System Integration and Security	3
Questions to Consider While Assessing the Environment.....	4
Understanding the Security Model.....	4
Considering the Performance Impacts.....	4
Transferring Knowledge	4
Training Your End Users.....	5
Ordering and Billing	5
Additional Questions to Consider	5
Maintaining the Software and Hardware.....	5
Provisioning the BlackBerry Handhelds	5
Understanding Network Coverage and Roaming	6
Inputs to the Environmental Analysis.....	6
Outputs from the Environmental Analysis	7
Designing and Developing a Technical Architecture	7
Inputs to the Design	8
Outputs from the Design.....	8
Testing and Prototyping the Solution Architecture.....	9
Defining the Exit Criteria.....	9
Creating the Test Bed and Test Plan.....	9
Validating the Deployment Plan.....	10
Piloting the BlackBerry Solution	10
Ensuring the Transfer of Knowledge.....	10

Planning to Implement BlackBerry

Identifying Users for the Pilot Phase.....	10
Getting Management Approval to Proceed.....	10
Evaluating and Gathering Feedback.....	11
Getting Feedback on the Provisioning Process.....	11
Getting Feedback on Performance Utilization.....	11
Getting Feedback on Coverage and Downtime.....	11
Collecting Feedback.....	11
More Educational Opportunities.....	12

Executive Summary

This document explains how to plan and implement a full-scale BlackBerry® wireless solution pilot in your organization. It identifies the tools needed to successfully run the pilot and smoothly migrate the pilot into a production environment. Other topics covered include:

- Defining the project goals and objectives
- Establishing a project team
- Analyzing and assessing the environment
- Designing the BlackBerry solution architecture
- Testing and prototyping the solution architecture
- Piloting the BlackBerry solution
- Evaluating and gathering feedback

This reference document is based on a BlackBerry webcast titled *Planning to Implement BlackBerry*. The original webcast can be accessed at

<http://www2.streamlogics.com/clients/blackberry/index.php?page=details&eventSelected=25>.

Defining the Project Goals and Objectives

Defining the project goals and objectives begins with asking some key questions:

- Does your company have a wireless strategy?
- What business benefits does your company hope to gain from implementing a wireless solution?
- What IT benefits will your company gain from a wireless solution?
- What things are in-scope and out-of-scope in this project?
- What are the critical success factors?
- What are the risks?
- Which groups, departments or individuals will participate in the pilot?

Considering the Business Benefits

Many companies that start out wirelessly start out with BlackBerry. Companies of all sizes, including small companies, can benefit. Consider the business benefits of a wireless solution. Perhaps an executive of your company has asked you to pilot a BlackBerry solution for one or more of the following reasons:

- To improve productivity for mobile users
- To be Always On, Always Connected®
- To enable the sales force (SFA applications, document management systems)
- To potentially reduce costs for remote access (RAS), VPN, mobile phones
- To displace pager hardware
- To increase responsiveness to time-sensitive emails

Considering the IT Benefits

The potential IT benefits should also be considered. How will the group that manages your network and your infrastructure benefit from a wireless solution?

IT groups often find that they can improve their asset management practices by implementing an IT-controlled BlackBerry user authorization process. Wireless network management professionals find that they can use their BlackBerry handhelds, in conjunction with partner products, to access servers, open up command lines, and perform start-and-stop NT services. Some products work in conjunction with BlackBerry handhelds to do BlackBerry systems administration, including adding and deleting users, changing user privileges, and checking the functionality of the server.

Determining Project Scope

Think about what is in scope and out of scope for your project. During a pilot, it might be considered out of scope to run wireless applications that aren't already contained within the BlackBerry solution. BlackBerry contains a robust set of business productivity applications, including email, calendar, and personal information manager (PIM) capabilities. You can limit the features you first implement, based on your own business situation. Additional wireless applications are certainly something to consider, although you may decide to deploy them after you've put your core BlackBerry solution into production.

Many companies control the size of the project scope by starting small. They first implement a BlackBerry pilot that enables only the company executives (perhaps ten to twenty people). Perhaps they broaden the scope slightly by including a group of the IT professionals who are involved in the deployment.

As you're defining the project goals and objectives, consider how you'll roll the BlackBerry solution out to your users in various regions, and begin to plan the rollout schedule.

Think about your critical success factors. A key definition of success is a deployment that doesn't negatively impact the day-to-day operations of your end users or of the IT groups that administer your system infrastructure.

Establishing a Project Team

Your project team should include members from the following areas:

- Messaging Administration
- Security
- Network Infrastructure and firewalls
- Helpdesk
- Project Management
- Procurement/Telecom
- Desktop Support/Software Deployment
- Web Development
- Carrier Technical Resources
- Change Management
- Operations Monitoring Group

Ensuring That Resources Are In Place

Ensure that you have enough resources in place for a successful rollout. Rollouts generally don't happen with just one or two people, so think of the groups, departments, and individuals that need to participate in the pilot. Who should be included? Executives? They're typically big email users, who can test the viewing of attachments and other key email features. IT staff? They'll be able to provide good project feedback from their viewpoint. Sales staff? They are often heavy PIM users.

Also consider groups such as the public relations group and the legal department. Don't forget the people in your messaging group, the security people who are responsible for the data going out on the wireless network, and the network infrastructure people who do firewall management. The firewall management people are usually supportive because of BlackBerry Enterprise Server has been designed to have a secure connection.

Make sure to manage the users' expectations properly, provide end user training, and keep open the lines of communication with all of the project participants. Don't forget to include the help desk people—they can tell you who on their teams will be helping to support BlackBerry. The desktop support group often works on software deployment, so they may be some of the people that are using products like ZENworks or SMS to push software out to employees' workstations.

Involve the web development team, even if you're not including a web application as part of the initial wireless pilot. Have the team members get familiar with the technology. Let them get out on the Internet to the www.blackberry.com/developers web site and look around at all the tools that are offered from a Java Development kit standpoint. Have them look at simulators and similar things. Get them thinking about wireless applications, so that later on down the road, if you go in this direction, they've already somewhat familiar with the technology.

If you have an enterprise-level agreement with a favored wireless carrier, you may want to get them involved. They may be able to provide evaluation software and hardware.

Involve your change management team. You'll also want to involve your operations monitoring group so that they'll know what to expect when the monitoring is occurring in the server.

Creating a Project Roadmap

When you create your project plan, put together a roadmap of the project phases that will incorporate your company's wireless strategies. Build a high-level framework or outline that includes milestones for the phases of the project and enables the development team and management team to assess the progress of the project.

Analyzing and Assessing the Environment

Once the project team is identified, the current environment should be analyzed. The BlackBerry solution comprises several key components that leverage and integrate with your existing infrastructure. Consider the following questions as you gather information:

- How does the BlackBerry Enterprise Server™ work?
- What are the features that are native to the solution?
- How will it integrate with the existing environment?
- What are the security requirements to integrate it into the messaging environment?

Understanding the BlackBerry Enterprise Server

Everyone on the project team should understand the basics of how the BlackBerry Enterprise Server works. The white papers available at <http://www.blackberry.com/knowledgecenterpublic> contain a wealth of information, and there is additional information included with BlackBerry software.

Understanding the Native BlackBerry Features

Project team members should know the features that are native to the BlackBerry solution. They should understand email redirection and know that BlackBerry is a "push" system that is 'Always On, Always Connected'. They should understand that calendaring is wireless, and that there's no need to cradle the BlackBerry handheld to synchronize on a regular basis. They should know that wireless applications can be accessed, not only externally, but also on internal websites reached through their company's own BlackBerry Enterprise Server.

Considering System Integration and Security

Think about how BlackBerry will integrate with your existing environment. For example, think about your current mail system and whether any modifications will be required.

Consider the security requirements for integration. You will need to think about end users and the administrative rights that will be required to install software. If you don't have a large deployment, you could ask the users to

upgrade their handheld software. In order to do that, they'll have to run a quick software installer on their desktop, which may require that they be granted administrator rights.

Questions to Consider While Assessing the Environment

You should also consider these questions when assessing the environment:

- How is the wireless data protected?
- What will be the performance impact on the messaging environment?
- What will be the performance impact on the network infrastructure?
- What do the security experts need to know about the solution?
- What disaster recovery and fault tolerance capabilities are built into the solution?
- What support structures and processes are in place?
- How do I transfer knowledge to the helpdesk/support people?
- What escalation processes are in place?
- What are the internal training requirements?
- What is the process for users to obtain handhelds?

Understanding the Security Model

You'll need to be aware of how the wireless data is protected, so it's best to get a good understanding of the solution's security model and see if you have any gaps or vulnerabilities in your system. In the BlackBerry wireless world, anything that's transferred over the air is encrypted, including email messages, PIN data, and calendaring information. Web browsing also involves encryption, if you're using the mobile data service that's built into the BlackBerry Enterprise Server. Everything is encrypted with Triple DES encryption keys that are stored only on the handheld and on the server behind the firewall.

Considering the Performance Impacts

Remember to consider any performance impacts to your messaging environment or network infrastructure. Think of where you're going to locate your BlackBerry Enterprise Servers. In a Microsoft Exchange environment, you'll be dealing with SNAPI, and in a Lotus Notes environment you're going to deal with a more native solution that has a somewhat cleaner connection. Be aware that MAPI has some limitations as a protocol for operating over a WAN. The BlackBerry software documentation contains recommendations for how to best locate servers.

Transferring Knowledge

Think about the security experts in your company and what they need to know about the solutions. They will need to be educated on how BlackBerry encryption is accomplished. They should become familiar with the BlackBerry design and how outbound connections through the firewall are made to the wireless networks. They need to be informed about IT policies, which are simply enforceable policies that can be pushed down to the BlackBerry handhelds. An example of an enforceable policy is a requirement that users have passwords and that they renew those passwords after a certain time period.

It's important to consider if there are disaster recovery or fault tolerance capabilities built into the solution and how they'll be incorporated into the new environment.

The current and future product support structures must also be considered.

Knowledge transfer is a key item that goes hand in hand with support—it should start early and continue throughout the life of the product. There are many good ways to transfer knowledge to support staff, including posting information to a central database, having a vendor conduct an organized training program, and having the support staff participate in the project planning and implementation.

If you have an escalation process in place for support issues such as messaging, you should be able to fold BlackBerry support right into that.

Training Your End Users

Remember to consider the internal training requirements for end users. It's not uncommon for companies to conduct a brief end user training class for employees when they are issued their BlackBerry handhelds. Companies can sometimes rely on a wireless carrier to provide training if the company already has a contract with the carrier.

Ordering and Billing

Who gets the bill when employees are issued BlackBerry handhelds? Are there standard methods or channels for ordering the handhelds? If you create new processes, will they integrate into your existing processes? Different companies handle these issues in different ways. Some companies require that their users buy the handhelds, and then the company pays the bill and expenses it. Some companies pay only for the airtime. Other companies pay for both the handheld and the airtime after ensuring that the users of the BlackBerry handhelds have the appropriate permissions and approvals.

Additional Questions to Consider

You should also think about these questions when analyzing the environment:

- What software maintenance is required?
- How do I RMA the handheld?
- Is roaming part of basic activation?
- How do I support international locations?
- How do I support users that travel abroad?
- What wireless networks do the handhelds work on?
- What wireless carriers are currently selling the handheld?
- What is the coverage map?
- How does roaming work? Is it in place for BlackBerry?

Maintaining the Software and Hardware

Software maintenance for BlackBerry is no different from software maintenance for any other system. BlackBerry issues service packs, and occasionally hot fixes. Appropriate upgrade procedures should be integrated into a company's software maintenance process. Purchasing TSupport from RIM® is a good way to get software maintenance, but there are other software upgrade programs available for those who do not want to purchase T-Support.

BlackBerry handhelds will occasionally break, or they may arrive unprovisioned or improperly provisioned. As a result, you'll need to know how to return BlackBerry handhelds to your wireless carrier through a Return Material Authorization (RMA) process. Research In Motion® sells to wireless providers—it doesn't sell directly to end customers. Customers buy BlackBerry handhelds from their wireless providers.

Provisioning the BlackBerry Handhelds

Employees who travel will need to have their BlackBerry handhelds provisioned for international roaming and pay the extra charge. Try to provide those employees with the names of the wireless networks in their destination. Customers who subscribe to RIM's TSupport service have access to website pages with information on who provides BlackBerry wireless service in various countries.

BlackBerry handhelds usually register themselves appropriately when they come into coverage in a network that's not their home network. That network then automatically hands them back to their home network.

However, it's worthwhile to train users to select the BlackBerry handheld options that enable them to scan for networks and then manually switch networks.

Understanding Network Coverage and Roaming

Coverage maps are available from wireless carriers, however they are usually voice coverage maps that may not provide a complete picture of the carrier's data coverage, especially for a GSM or GPRS type of network. For example, a coverage map showing 100% voice coverage might only cover 80% of that area for wireless data. It's often best to talk to a representative of a wireless carrier to determine the exact coverage.

Develop an understanding of how roaming works and whether it's in place for your BlackBerry environment. For example, if you know that your company has North American employees who are going to be traveling regularly to and from Germany, and you want to buy BlackBerry handhelds on a particular network, contact that Network Service Provider and make sure that there are roaming agreements in place. That way your employees will be up and running when they get off the plane in Germany.

Inputs to the Environmental Analysis

When planning a BlackBerry implementation, the environment must be analyzed from a high level. There are a number of factors that are inputs to the analysis:

- Mail Servers and Target BlackBerry Enterprise Servers
- Networks: LANs/WANs/Firewalls/Routers/Proxies/Internet/SMTP gateways
- Desktop Configurations and User Geographical Locations
- Customer Support
- Wireless Device Strategy

Mail Servers, Gateways, and Networks

Your analysis should start with the mail servers. When considering the BlackBerry Enterprise Server, it's important to determine where the user locations are going to be in relation to the mail servers. Look at your Microsoft Exchange sites or routing groups and your Domino name networks. RIM can provide recommendations on how to strategically place the BlackBerry Enterprise Server, based on the location of the users' mailboxes and the location of the Exchange or Domino servers.

Check the location of your Simple Mail Transfer Protocol (SMTP) gateways. Most companies only have one gateway, so be aware that there will be some extra traffic going through that.

Take a look at the version numbers of the Microsoft Outlook or Lotus Note applications that your employees are running at their desktops. Extremely old versions may not be compatible with your BlackBerry implementation.

A network that is a LAN to WAN firewall is pretty straightforward. You'll be considering NT domains, determining if there's any virus scanning going on at the server level, thinking about your backup methods, and determining if you need to use a demilitarized zone (DMZ). Some companies require that a server sit in a DMZ if it has to connect to an outside host. RIM does not recommend that approach. Your carrier representative or RIM representative can provide additional details and recommendations.

Desktop Configurations

Your desktop configurations should be another factor in your analysis of the environmental variables. Look at where your users are going to be split up from a geographical standpoint. As mentioned earlier, users will need system permissions to install software. At a minimum, they'll need to occasionally upgrade their BlackBerry handheld operating system, which will require them to run a small setup program.

Customer Support Contacts

Consider who your users' customer support contacts are going to be. Will they go to your company's regular help desk, or are they going to go directly to you? It might be worthwhile for them to go straight to a smaller group

for the pilot. The smaller group can act as a test lab of sorts until the system is up and running. And remember to think about your software distribution methods in terms of pushing new updates out to the computer.

Wireless Device Strategy

What is your current wireless device strategy? How many wireless devices will be in use? Will they be PDAs? Laptops? Cell phones? These questions must be answered as part of your analysis of the environment variables. Think about the wireless networks that you may be using. Are there any business applications right now that are wirelessly enabled? If so, you may be able to make use of that environment.

Outputs from the Environmental Analysis

You'll want to document your project by creating the following items:

- Project Plan
 - Project Team Members
 - Project Scope and Assumptions
 - Communications Plan
 - Change Management Plan
 - Issue Management Plan
 - Risk Management Plan
- High-level Wireless Strategy Document
- GANTT Chart
- Technical Documentation (to ensure that system parameters have been captured). Examples:
 - Network Diagram
 - Server Configuration Checklists
 - Desktop Configuration Parameters
 - Performance Requirements
- IT Policies (as determined by company standards and requirements)

The documentation outlined above should discuss the impact on both users and management. You may be able to use a change management plan that is already in place at your company.

If you don't already have a network diagram that includes the mail servers and the geographical locations of your users, this would be a good time to put one together and to fold the BlackBerry solution into it.

The IT policies should contain minimum IT policy standards. You should ask questions like these: Are we going to require that people have passwords? If we are, are we going to make them five alphabetic characters with no need to also enter in numbers? Or should they be mixed upper- and lower-case passwords with alphanumeric characters? You may just want to follow whatever IT policy you currently use for your local area network.

Designing and Developing a Technical Architecture

Designing and developing a technical architecture is the beginning of the design phase, in which you create the design you're going to implement and identify any of the technology dependencies that you have. You need to think about what needs to be in place before starting each phase.

The design phase should include the use of these key documents:

- Architecture Plan
- Communication and Knowledge Transfer Plan
- Project Plan
- Listing of In-Scope/Out-of-Scope Features

First, take a look at your architecture plan, which describes what you're going to build. Look also at your communication and knowledge transfer plans. Look at your project plan and think about the features that you want to implement. You might decide that you're going to do just email, or email and calendaring, because wireless applications are outside of the scope of your project. Or, you may decide that wireless applications will be eventually be in the scope of the project, but not until a more simplified system goes into production.

Inputs to the Design

Here are some key inputs to your design:

- System Architecture, Security, and Operations Considerations
- Support and Training Considerations
- Testing Considerations

System Architecture, Security, and Operations

The system architecture will include the details around the BlackBerry wireless environment that you're going to deploy. Security and operations considerations include server service account policies and firewall considerations. Your network people will work with you on that, especially if there are any DMZ considerations. For things like server maintenance, you can say to your operations group: "I've got this server coming in, I need it to fall into your normal server maintenance scenario."

Support and Training

As mentioned earlier, don't forget about support and training considerations. Often the operational support people will monitor for you. There are also the administrative support people and the roles that they play. There's your help desk, and if you have a contract with RIM for paid support, you'll put together what RIM calls a Named Support or a Named Caller List. These will be the people in your company whom you designate to call into RIM for support.

Testing and Metrics

You'll need to consider your testing strategies. Always think about how you test the system once it's built. RIM provides temporary licenses that run for 90 days. Companies can take advantage of those to use in their lab environment. In most cases, if you have a large enough deployment, you will have that lab environment. In this design and deployment phase, remember to involve people who will help you spread the word and efficiently pass it on to other team members.

Performance metrics can be gathered with a utility such as PerfMon. Start with a server that's not running BlackBerry, then run PerfMon, take a measurement, and get a baseline. Then, as users are added over time, you can look at PerfMon and see how performance has changed.

System availability metrics are a comparison between your actual system uptime and your system uptime requirements. If you require that your email system be available 99.5% of the time (for example), you may decide that you have similar uptime requirements for BlackBerry.

Outputs from the Design

Your design should have these documentation outputs:

- System Architecture Document
 - Operations Plan
 - Security Staging (IT policy implementation)
- Migration to Pilot Plan
- Cutover to Production Plan

- Knowledge Transfer Plan
- Initial Deployment Plan

System Architecture Document

The system architecture document should define all the components of the system. Some questions to ask: Who's going to monitor the system? Who's going to change the tapes out for backup? Who's going to be responsible for day-to-day tasks? There will also be requirements for security staging, which involves implementing your IT policy and communicating the policies to the users.

Migration and Cutover Plans

You'll come out of this with a plan for migrating to the pilot phase of the project. This will involve the end users accepting the testing of the system.

The cutover-to-production plan is a way to ensure that the team really has all the information needed to transfer over to production.

Knowledge Transfer and Deployment Plans

Knowledge transfer is a very important thing, so remember that you need to communicate things like best practices. You need to communicate any specific details about your deployment and your environment that the help desk people should know about, or the desktop technicians should know about.

You should come out of this phase with your initial deployment plan, which covers your handhelds, your desktop software installations, your security settings, and similar basic but very important things. You should orient the user acceptance testing around whatever features you've decided on. Perhaps it's just email. If it is, there's no sense in testing the calendaring function.

Testing and Prototyping the Solution Architecture

Testing the system or the design means that you're going to have to conduct a proof of concept test of the proposed solutions. As you test, you'll be tweaking things, taking feedback and suggestions, and making improvements as needed.

Defining the Exit Criteria

You're now laying the groundwork to move into a production phase. All the people that work on the project are going to have feedback into that. The idea here is to come out of this with a system that's ready for production. You should define the exit criteria for the pilot. You've got to make sure the pilot has a defined end point. It's not uncommon for a company to say, "Well, we're actually still in pilot. Although it's been six months, we never actually went to production." They never defined an exit criterion, which is a very important thing. Make sure that you're refining and testing strategies throughout the pilot, so that you are ready for the full move to production. You need to identify a portion of the eventual user community to participate in the pilot phase.

Creating the Test Bed and Test Plan

As an input to your testing, you should use the design architecture that you've put together and create a test bed. This is typically going to involve building a server, setting it up, getting all your settings together, configuring the system, and getting together your initial group of users. Then you need to execute the test plan and start to execute your initial knowledge transfer between people in the various groups, such as the desktop support group and the help desk group. This will be done using the live mail system that's already in the company. There is no need to move people off to some sort of a test mailbox.

The outcome from the prototyping and testing will be a test bed. It will be configured and verified, and will run within the production system. The test users will be running within the production mail systems, doing their normal routine tasks. They'll have executed the test plan and will be moving on to the next phase.

Validating the Deployment Plan

The testing will result in a chance to upgrade and validate the deployment plan. The design documents can also be refined based on your proof of concept findings. This is an ongoing process. Because the pilot will run with production mail systems, with a BlackBerry Enterprise Server connected to that, you'll be able to make sure it's installed and configured the way you want it to be in any production environment. And you'll start to gather some preliminary user acceptance test results and feedback.

Piloting the BlackBerry Solution

The pilot phase, which is when you'll actually go live, is when you get to test everything you've built. You'll start to get a lot of good feedback from people running their normal mail, accessing their email inboxes, doing routines, and getting to use the system in a production environment. This will allow you to validate all your designs. The project team can ensure that the pilot stays on schedule. Team members can begin to determine how to get service packs, how to apply them, how to utilize the change management system, and how to go through the normal system maintenance windows. The goal is to act as if the pilot is a regular production system.

One of the objectives for your pilot phase is to try to obtain the buy-in from your key stakeholders that the solution is functioning in accordance with the design requirements. Execute all these plans as specifically as if you were moving to production.

Ensuring the Transfer of Knowledge

Continue to make sure that the knowledge transfer is occurring. Make sure the people on the help desk are aware of when things are changing. Make sure they know when new user groups are coming online. Monitor the performance of the system and evangelize it. Get out there and try to generate some demand and get some buzz going around it.

Identifying Users for the Pilot Phase

One of the inputs for the pilot, as mentioned earlier, is to identify the groups of users. Typically they are laptop users or commuters. You may want to include people that currently use PDAs that are mobile but not wireless. You should also include decision-makers, such as senior executives. It is good to have users from the highest level on down.

Heavy email users are good people to add to the list of pilot users. Legal departments and public relation departments often fall into this category and therefore make good testers. Try to select a minimum of 50 participants for the pilot. Some companies are too small to do that, and that's fine. You can pilot with as few as five or ten BlackBerry handhelds—there's really no set minimum. But with 50 participants, you'll get a lot of feedback, and this may help enormously in the future when it comes time to add more features.

Getting Management Approval to Proceed

You'll always have to get management approval to proceed. This is no different from any other type of project. Make sure you've got exit criteria, so that you can make a statement in your project that says, "After all these things are done, we're moving from the initial test phase to the pilot phase."

Your output is going to be that you end up with a production class system that's ready to go, it's implemented, and there's not going to be any change. People aren't going to have to suddenly go and make any drastic changes within their handheld or their handheld software or the desktop software, just to move to production. It'll be seamless for them.

You'll have plans in place so that your migration does occur. If planned correctly, the help desk will have been participating from a support standpoint—in a sense, they've been doing a pilot of their own help desk capabilities. They'll be ready to go. And you'll have an approval process that basically gives you the go-ahead for the rollout.

Evaluating and Gathering Feedback

The evaluation and feedback phase is your final stage. It's the time to collect as much feedback as possible and consider these questions: How well did my escalation processes or my support procedures work? Did I get a good response from the operational people when it came time for them to handle monitoring and provide notifications?

Getting Feedback on the Provisioning Process

You'll get lots of good feedback, or perhaps bad feedback, on your provisioning process. It depends on how you go about getting handhelds out to your users. In most cases, you'll probably deal with the carriers directly. You'll provision the handhelds in terms of adding the people to the server and making sure the handheld is working before you actually give it to the user in the pilot environment.

Getting Feedback on Performance Utilization

Performance utilization feedback will come from the people that do IT management and administration. You'll find out, perhaps, that the pilot didn't have a negative impact on the mail environment. Or perhaps it had a slightly negative impact, but with 50 users. By the time you get to your potential production limit of 200 people you should be fine.

Getting Feedback on Coverage and Downtime

People will give you feedback about what their coverage was like, especially the users that are in fringe areas at home but have good coverage areas at work. In a pilot, you may not necessarily go to the extent of surveying everybody and saying, "Hey, we know that this wireless provider provides great coverage here in the office, but where is your house in terms of coverage? What wireless providers work out there? What kind of cell phone do you use?" But you do want to consider those things, because in the production world you'll need to ask all those questions of people. In the final stage, the feedback you receive will help you to define any necessary scope changes as well.

You'll get a chance to review unscheduled downtime and look at the problems that occurred. Were they related to email? Were they network-related?

You'll definitely get a lot of suggestions on how to improve the product, and people will give you suggestions on features that they did or didn't get to use. You may also get some feedback on product training.

Collecting Feedback

There are a number of good ways to collect feedback. Some companies have a customized intranet site where employees can enter feedback. The feedback might be in a database or it could just be something that the IT group goes out and gathers occasionally. Another way to gather feedback is through paper forms. The thing about that is that you may not have time to go and collect them. They may get lost in the paperwork with other things on people's desks. Electronic feedback forms can be useful. They can be sent out via email as a feedback template.

Most people get their users on the phone to provide feedback. If you're dealing with 50 people, that may be a little cumbersome, but if you're dealing with 20 or 25 people, it's relatively easy to get five or ten of them at a time on the telephone talking about what the pilot was like. What did they find that was tough to use? What needs to be done differently? Was there enough information in this area or that area? You'll have a lot of general observations from your own project team as well.

More Educational Opportunities

There are many additional educational opportunities available from RIM that are very useful for planning to implement BlackBerry:

- Related Documentation: BlackBerry Pilot Program Framework
http://www.blackberry.com/knowledgecenterpublic/livelink.exe/fetch/2000/7979/278390/BlackBerry_Pilot_Program_Framework.pdf?nodeid=644920&vernum=0
- BlackBerry Technical Knowledge Center:
<http://www.blackberry.com/knowledgecenterpublic>

*Check with service provider for availability, roaming arrangements and service plans. Certain features outlined in this document require a minimum version of BlackBerry Enterprise Server software, BlackBerry Desktop Software, and/or BlackBerry handheld software. May require additional application development. Prior to subscribing to or implementing any third party products or services, it is your responsibility to ensure that the airtime service provider you are working with has agreed to support all of the features of the third party products and services. Installation and use of third party products and services with RIM's products and services may require one or more patent, trademark or copyright licenses in order to avoid infringement of the intellectual property rights of others. You are solely responsible for determining whether such third party licenses are required and are responsible for acquiring any such licenses. To the extent that such intellectual property licenses may be required, RIM expressly recommends that you do not install or use these products and services until all such applicable licenses have been acquired by you or on your behalf. Your use of third party software shall be governed by and subject to you agreeing to the terms of separate software licenses, if any, for those products or services. Any third party products or services that are provided with RIM's products and services are provided "as is". RIM makes no representation, warranty or guarantee whatsoever in relation to the third party products and services and RIM assumes no liability whatsoever in relation to the third party products and services even if RIM has been advised of the possibility of such damages or can anticipate such damages.

© 2004 Research In Motion Limited. All rights reserved. The BlackBerry and RIM families of related marks, images and symbols are the exclusive properties of Research In Motion Limited. RIM, Research In Motion, BlackBerry and 'Always On, Always Connected' are registered with the U.S. Patent and Trademark Office and may be pending or registered in other countries. All other brands, product names, company names, trademarks and service marks are the properties of their respective owners.

The handheld and/or associated software are protected by copyright, international treaties and various patents, including one or more of the following U.S. patents: 6,278,442; 6,271,605; 6,219,694; 6,075,470; 6,073,318; D,445,428; D,433,460; D,416,256. Other patents are registered or pending in various countries around the world. Please visit www.rim.net/patents.shtml for a current listing of applicable patents.

This document is provided "as is" and Research In Motion Limited (RIM) assumes no responsibility for any typographical, technical or other inaccuracies in this document. RIM reserves the right to periodically change information that is contained in this document; however, RIM makes no commitment to provide any such changes, updates, enhancements or other additions to this document to you in a timely manner or at all. RIM MAKES NO REPRESENTATIONS, WARRANTIES, CONDITIONS OR COVENANTS, EITHER EXPRESS OR IMPLIED (INCLUDING WITHOUT LIMITATION, ANY EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS OF FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, MERCHANTABILITY, DURABILITY, TITLE, OR RELATED TO THE PERFORMANCE OR NON-PERFORMANCE OF ANY SOFTWARE REFERENCED HEREIN OR PERFORMANCE OF ANY SERVICES REFERENCED HEREIN). IN CONNECTION WITH YOUR USE OF THIS DOCUMENTATION, NEITHER RIM NOR ITS AFFILIATED COMPANIES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES OR CONSULTANTS SHALL BE LIABLE TO YOU FOR ANY DAMAGES WHATSOEVER BE THEY DIRECT, ECONOMIC, COMMERCIAL, SPECIAL, CONSEQUENTIAL, INCIDENTAL, EXEMPLARY OR INDIRECT DAMAGES, EVEN IF RIM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INCLUDING WITHOUT LIMITATION, LOSS OF BUSINESS REVENUE OR EARNINGS, LOST DATA, DAMAGES CAUSED BY DELAYS, LOST PROFITS, OR A FAILURE TO REALIZE EXPECTED SAVINGS.

This document might contain references to third party sources of information and/or third party web sites ("Third-Party Information"). RIM does not control, and is not responsible for, any Third-Party Information, including, without limitation the content, accuracy, copyright compliance, legality, decency, links, or any other aspect of Third-Party Information. The inclusion of Third-Party Information in this document does not imply endorsement by RIM of the third party in any way. Any dealings with third parties, including, without limitation, compliance with applicable licenses and terms and conditions, are solely between you and the third party. RIM shall not be responsible or liable for any part of such dealings.