Wireless Enterprise Applications

Understanding the Opportunities on BlackBerry

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Agenda

- Wireless in the Enterprise
- BlackBerry Overview
  - BlackBerry Handhelds
  - BlackBerry Enterprise Server
  - BlackBerry Beyond Email
- Extending Enterprise Applications to Wireless Handhelds
  - Key Considerations and Options
  - Development Tools and 3rd Party Solutions
- Mobilizing the Enterprise
  - Sales Force, Field Service and Executives
  - Corporate IT and Operations
  - Industry Professionals

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Wireless & Mobility in the Enterprise

- Wireless Technologies Most Relevant to Enterprises
  - Wide Area Wireless Networks and Handhelds
    - GPRS, CDMA, iDEN, Mobitex
    - EDGE, UMTS, EV-DO
  - Wireless Local Area Networks (Wi-Fi)
    - 802.11b, 802.11g
    - Laptops, Handhelds
- From Wireless to Mobility…
  - Not about technology or wireless access anymore
  - Now about *Mobility and Real-Time Applications*
    - *Productivity & Immediacy*
    - *Context-Sensitive Information*
    - *Real-Time Workflow and Collaboration*
    - *Business Value and Competitive Advantage*

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Wireless & Mobility in the Enterprise

- Enterprises have been investing in wireless technology & mobile solutions as a way of boosting productivity, improving efficiency & increasing access to knowledge

- Typical deployments:
  - Start with familiar pervasive applications across groups (such as email)
  - Extend to vertical applications within specific groups to solve specific business problems

Vertical Wireless Applications:
Take more time to discover & deploy
Tend to Yield higher quantifiable ROI

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BlackBerry Wireless Solution Overview

- Leading wireless email & PIM solution for mobile professionals
- BlackBerry is a complete solution, composed of multiple components and services:
  - Wireless Handhelds
  - Simplified Wireless Connectivity to the Enterprise
  - Always-On “Push” Technology & Network-Independence
  - Security & Management

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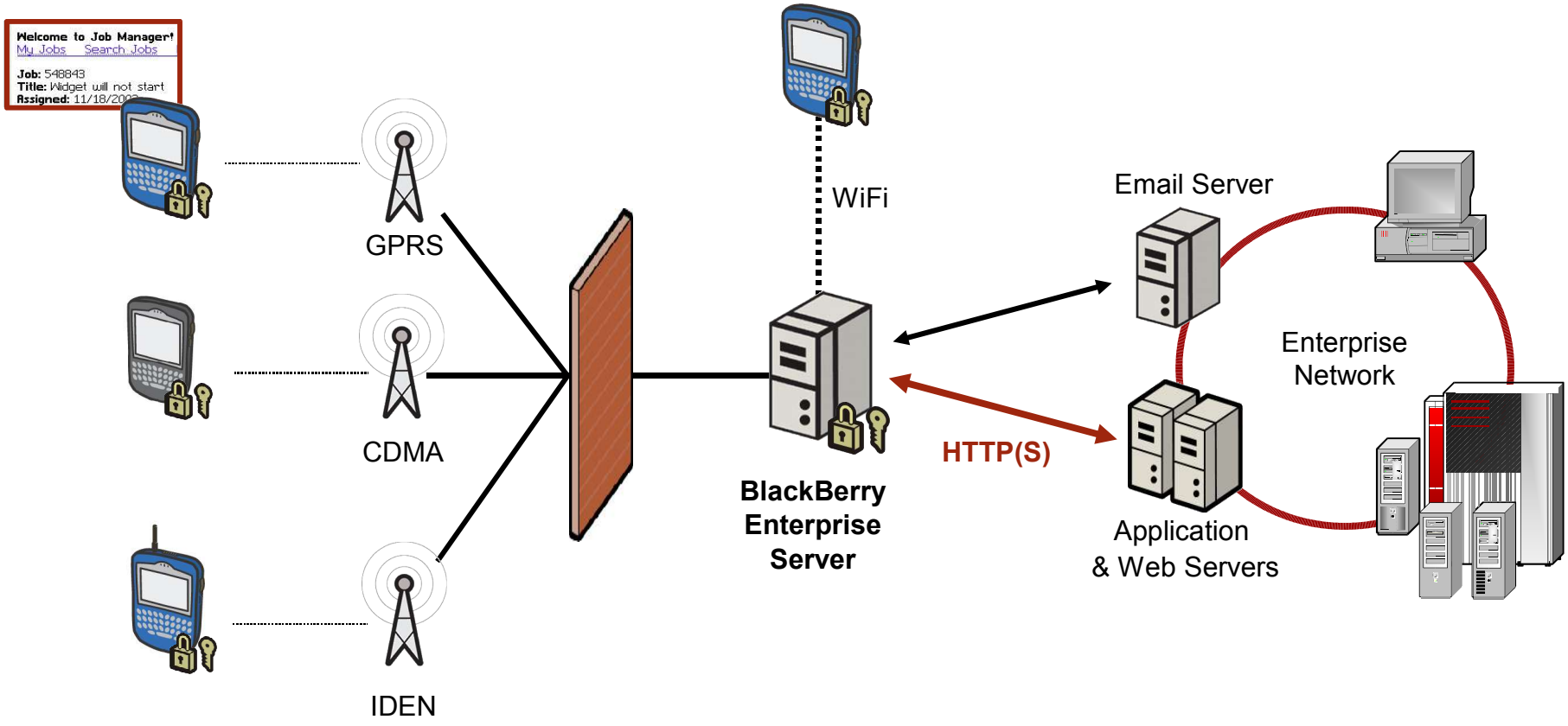
BlackBerry Wireless Solution Overview



Connectivity Security Management Opportunity & ROI

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BlackBerry Wireless Solution Handhelds

Wireless Email

- Rich, full-featured email client
- Support for “PUSH”
- Attachment Viewing

Personal Information Management (PIM)

- Contacts, Calendar, Tasks, Memo Pad

Cellular Phone

- GSM / iDEN / CDMA / VoIP phone

Extensible to New Applications

- BlackBerry Browser (HTML / WML)
- Open Java development platform
- Solutions from 3rd Party ISVs

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BlackBerry Wireless Solution
BlackBerry Enterprise Server

BlackBerry Enterprise Server - Key Features:

3. Secure connectivity for BlackBerry handhelds
   - Like a permanent, bi-directional VPN
4. Corporate Email & PIM Integration
   - Full wireless sync of email & PIM data
5. Handheld & User Management
   - Handheld auditing & reporting, IT Policies & IT Commands
7. Mobile Data Service (MDS)
   - Secure proxy for HTTP connections from other applications (Browser, Java apps)
   - Provides reliable PUSH interface for server-side applications
8. Application Provisioning
   - Wirelessly deploy new applications via BlackBerry Server console

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BlackBerry Wireless Solution
BlackBerry Beyond Email

- BlackBerry Wireless Solution enables new wireless applications to be developed and deployed without the need to:
  - Purchase or manage new wireless connections or new pricing plans
  - Worry about security beyond the firewall
  - Worry about remote connectivity & support for multiple networks (including roaming!)
  - Worry about how to deploy to thousands of users
- Easily extend existing enterprise applications & processes wirelessly
  - Low cost to develop & ease of deployment
  - Choice of application models
    - BlackBerry Alliance Partners: 3rd Party Solutions
    - BlackBerry Browser
    - Custom Java/J2ME development tools
  - Leverage PUSH for wireless updates & alerts

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Extending Enterprise Applications
Options for Deployment

3rd Party Applications

- Remote Network and Systems Management
- Forms, Data Collection, Location-Based Services
- CRM / SFA
- Business Continuity
- Industry solutions

3rd Party Middleware and Services

- ERP, CRM, Field Service, Help Desk
- Workflow, SCM
- Legacy applications, Databases, etc.

In-House Custom Applications

- BlackBerry Browser
- Custom Java/J2ME Application Development

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Custom Application Deployment Options for BlackBerry

1. Browser / Server Applications
   - Use the BlackBerry Browser to securely access internal web sites via BlackBerry Enterprise Server MDS
   - Use existing web pages or design new pages for BlackBerry
   - Leverage PUSH in custom server-side apps

2. Custom Client / Server Applications
   - Develop custom application for the handheld with customized interface & client-side logic
   - Communicate with existing or new server-side applications on intranet (or Internet)
   - Leverage PUSH in custom server-side apps

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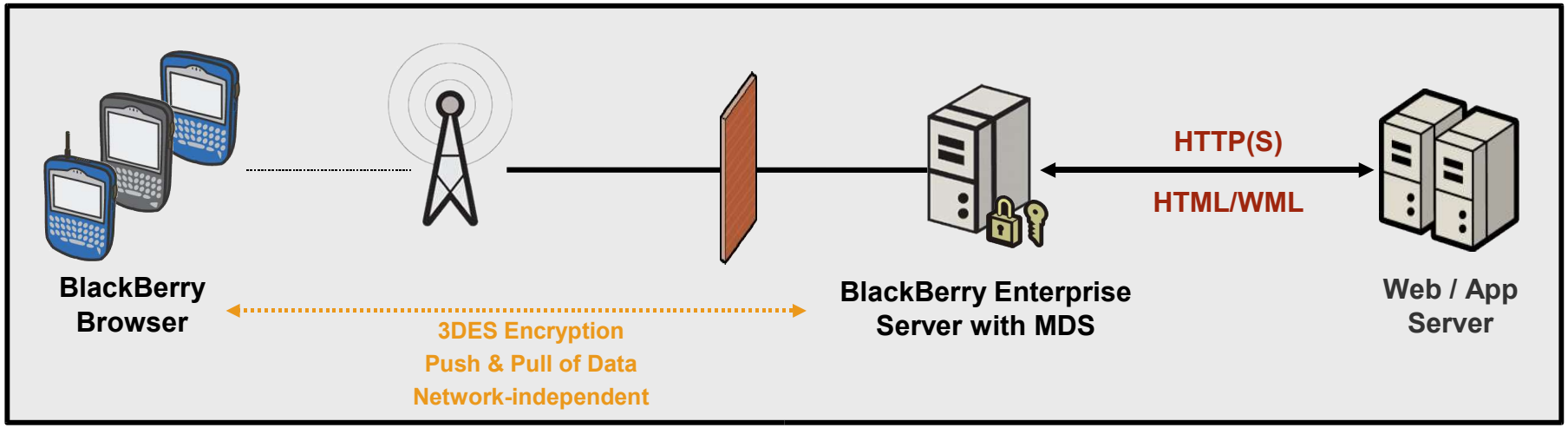
BlackBerry Browser Overview

- Simplified Wireless Connectivity to Intranet: Like a permanent VPN!



- Keys To Success:
  - *Optimizing content for small form factor*
  - *Leveraging PUSH to proactively distribute content to mobile professionals*

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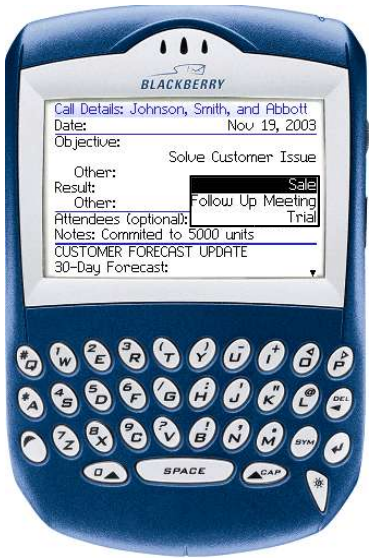
BlackBerry Java Development Environment Overview

- BlackBerry Java Development Environment (JDE) enables developers to build custom client Java (J2ME) applications
- 3 main versions of Java:
  - J2SE: *Runs on desktops & laptops*
  - J2EE: *Runs on servers*
  - J2ME (Java 2, Micro Edition)
    Runs on small computing devices
- BlackBerry JDE v4.0
  - Released in Fall 2004, support for J2ME (MIDP) 2.0
  - Includes BlackBerry-specific Java API extensions
  - Includes full IDE and simulation tools



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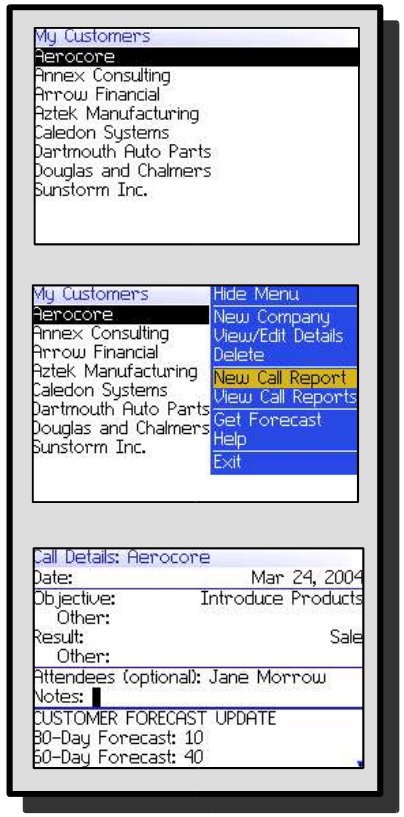
BlackBerry Java Development Environment Overview

- Java APIs for BlackBerry enable you to develop custom client applications that provide:
  - Customizable UI
  - Local Data Storage on the handheld
  - Event Listening
  - Secure wireless transport
    - Communicate with back-end Application or Web Servers via HTTP or TCP sockets
    - XML parsing
    - Support for Reliable Push from server-side application

For more advanced applications:

  - Integration with BlackBerry Email, Phone, PIM, Options & Notification applications
  - Bluetooth, Location API enhancements, USB/Serial Port



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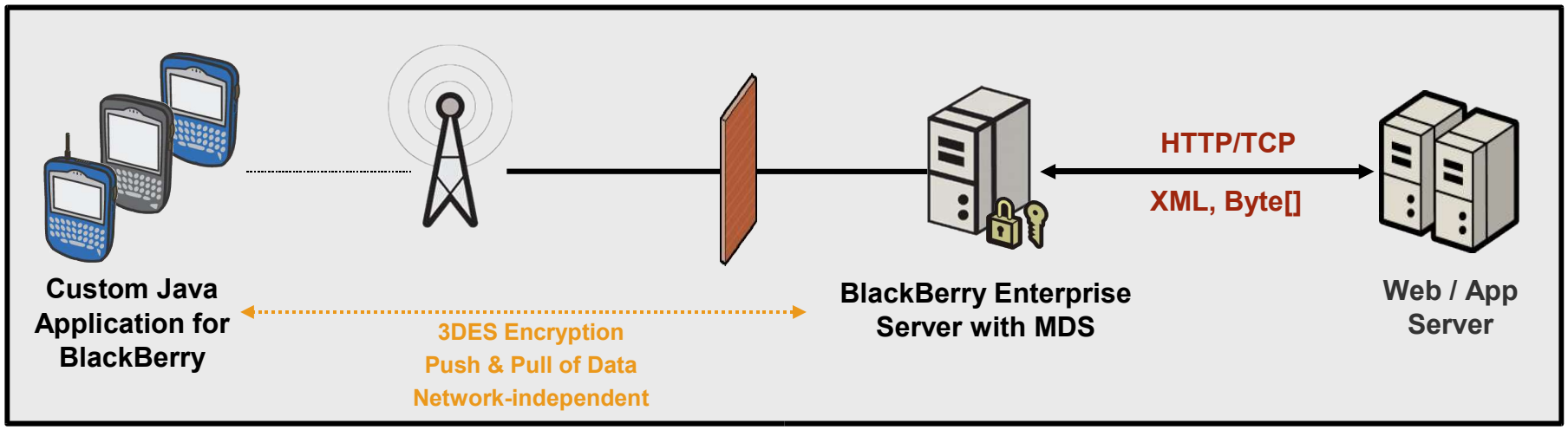
BlackBerry Java Development Environment Overview

- Simplified Wireless Connectivity to Intranet: Like a permanent VPN!



- Key Advantages Over Browser-Based Applications:
  - *Optimized and customized User Interface*
  - *Local Data Storage: Offline support & immediate access to data*
  - *Optimized transport: XML-based, support for background threads & Push*
  - *Options to Integrate with local BlackBerry applications (Email, PIM, Phone)*

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Mobilize Your Enterprise with BlackBerry

- Mobilize Your Field Service and Sales Force
  - Sales Force Automation & CRM
  - Field Service and Job Dispatch
- Mobilize Your IT Operations
  - Remote Network & Systems Management
  - BlackBerry Enterprise Server Monitoring
- Mobilize Your Enterprise Operations
  - Business Intelligence
  - Inventory and Supply Chain Management
  - Continuity of Operations
- Mobilize Your Industry Professionals
  - Legal, Finance and Insurance, Professional Services
  - Real Estate, Health Care, Property Management

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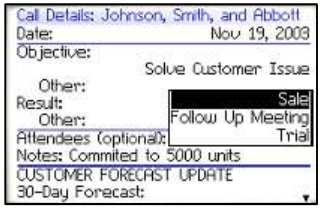
Mobilize Your Field Service and Sales Force

- Mobile Sales Force and Field Service Automation
  - Key Features and Opportunities:
    - Remote Account Management & Order Entry
    - Alert-Based Opportunity & Job Management
    - Real-Time Reporting (Opportunities, Dashboards)
    - Location-Based Services & Barcode Scanning
  - Solutions Available to Mobilize Existing Systems:
    - SAP, Siebel, PeopleSoft/Oracle
    - Salesforce.com, Saratoga Systems, Onyx, etc.
    - Remedy, Clarify, Peregrine, HEAT
  - Other Relevant Solutions:
    - Remote document management and access
    - Instant Messaging



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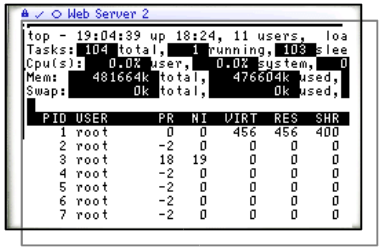
Mobilize Your IT Operations

- Remote Network and Systems Management
  - Remotely access & manage Windows & Unix servers on corporate intranet
    - User management, Access to event logs & statistics, SQL Manager
    - Restart services, Reboot server
  - Secure Telnet Access, SSH/Terminal Emulation
  - Access & manage BlackBerry Enterprise Server, Lotus Domino, MS Exchange servers
  - *Reduce down-time & RAS costs; Improve employee satisfaction*



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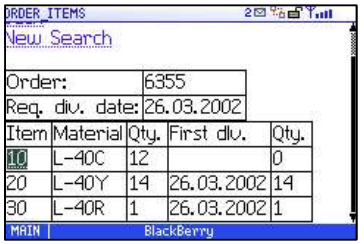
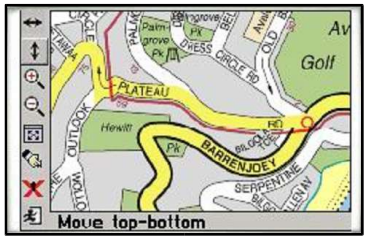
Mobilize Your Enterprise Operations

- Business Intelligence and Analytics
  - Real-time reporting to mobile executives
  - Actionable alerts

- ERP and Workflow
  - Inventory and Supply Chain Management
  - Approvals and workflow



- Continuity of Operations
  - Push out business continuity plans, documents, emergency contact information, etc.
  - Group notifications and chat
  - Location-Based Services and mapping



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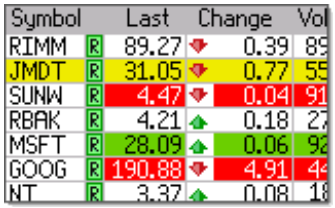
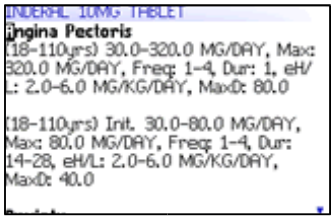
Mobilize Your Industry Professionals

- Finance and Insurance
  - Portfolio management, CRM
- Legal
  - Time and Billing, Access to document repositories (Lexis Nexis, Hummingbird, iManage, etc.)
- Real Estate
  - Real-time access to MLS Listings
- Health Care
  - e-Prescribing, Medical reference guides, etc.
- Public Safety and Law Enforcement
  - Access to national police databases and dispatch
  - Text messaging and alerting



Symbol		Last	Change	Vol
RIMM	R	89.27	0.39	89
JMDT	R	31.05	0.77	55
SUNW	R	4.47	0.04	91
RBAK	R	4.21	0.18	27
MSFT	R	28.09	0.06	92
GOOG	R	190.88	4.91	44
NT	R	3.37	0.08	18



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Paths To Success

Key Considerations for Deployment

- Leverage existing BlackBerry enterprise deployment
  - Secure wireless connectivity through MDS
- Choose a solution that meets the needs of mobile users and your IT department
  - Browser vs. Client
  - 3rd Party Solutions vs. Custom Development
  - Optimized user interface to drive adoption and success
  - Leverage push for real-time distribution of alerts and time-sensitive information

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Paths To Success

Developing the Business Case

- Understand existing business problems
  - Costs associated with inaccurate or inconsistent data from the field, lost opportunities, etc.
  - Productivity: Time wasted traveling to/from the office or searching for data
  - Competitiveness: Having access to the right information at the right time
- Determine potential savings from deploying a complete wireless solution
  - Increased productivity and revenue, workflow efficiencies
  - Asset displacement (laptops, PDAs, cell phones, etc.)
- Understand deployment costs and TCO
  - Reduced costs if deploying over existing BlackBerry investment
  - Consider integration work and trade-offs

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Resources

- General Resources – BlackBerry
  - www.blackberry.com
- 3rd Party Solutions for BlackBerry
  - www.blackberry.com/ThirdParty
    - Enterprise Solutions Guide
- BlackBerry Java Development Environment and Simulators
  - www.blackberry.com/developers
  - Used for application development or testing BlackBerry Browser

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Questions?

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