

BlackBerry Apps Experience

Everything You Need to Know and More.



Agenda

BlackBerry Application Ecosystems

Rules of the Road to Mobility

Steps to App World Success

Do-It-Yourself Apps with Major Impact

Take a guess...

- 2 years, 2 months, 5 days (796 days)
- 7 months, 4 days (218 days)

App World Numbers

Over **2 billion apps** downloaded

Over **177 million apps** downloaded per month

Industry-leading reach:

App World available in **130 countries** and growing

26 + currencies supported

Over **90%** of the **75 million** BlackBerry

Subscribers have access



BlackBerry App World

- No registration or submission fees. None. \$0.00
- Available for BlackBerry smartphones running BlackBerry® Device Software v4.5 & BlackBerry PlayBook Tablet OS 1.0+
- Multiple monetization opportunities with in-app purchasing, subscription billing and mobile ad services
- FAQs:
<http://developer.blackberry.com/devzone/appworld/faq>
- Registration:
<https://appworld.blackberry.com/isvportal/>



I'm ready to do Apps, now what?

Where do I start?

Do I have development option choices?

What tools should I use?

Are there any examples that will help?

How do I get help?

Considerations

- **Background and Skills**
Reuse of existing code, assets
- **Requirements**
Cross-portfolio, cross-platform, features
- **Platform Capabilities**
APIs, tooling, frameworks, constraints
- **Tools**
IDE, utilities, simulation, familiarity
- **Support**
Community, docs, samples

Rule #1: Choose the right tool for the job.



The image shows a screenshot of the BlackBerry Developer Technologies interface. On the left, a blue background features the text "Developer Technologies" in a large, white, hand-drawn font. To the right of this text, the phrase "Choose Your Flavor" is written in a smaller, white, hand-drawn font. Below the main text, there is a link that says "» Explore the BlackBerry Platforms". A white arrow points from the "Choose Your Flavor" text to a list of development options on the right side of the screen. The list includes:

- C/C++ Native SDK
- HTML5 WebWorks
- Java BlackBerry Java
- Java Android Runtime
- Action Script Adobe AIR
- Themes Theme Studio

Developing with Adobe AIR



- Easily adapt and deploy existing content
- Native BlackBerry® PlayBook™ tablet component set look and feel
- Can create hybrid apps
- Access to native API's with Adobe® AIR® Native Extensions
- Lots of great community support
- Lots of open-source frameworks
- New Stage3D offers great 3D performance

PlayBook

BB10 Platform

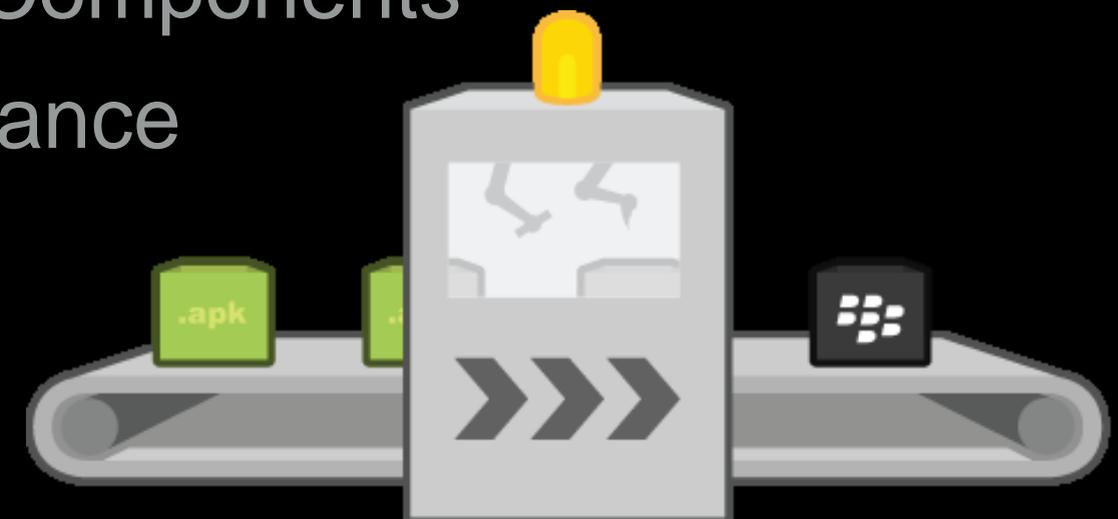
PlayBook

BB10 Platform

Android Player



- Self Contained Virtual Machine on Tablet OS 2.0 and BB10
- Perfect for Standalone Applications, Like Games
- Slightly Different Java than J2ME
- Restricted Access to Many Native Android Components
- Only Support the Personal Perimeter of Balance
- None of the RIM Specific API's Are Implemented



BlackBerry Java

Build Super Apps

with the BlackBerry Java SDK

- Build rich and deeply integrated applications
- Access to 20,000+ feature rich APIs
- Huge Community & Support
- Super Apps super easy
- 7.1 is ready!



PlayBook

BB10 Platform

PlayBook

BB10 Platform

BB10 Native SDK

- C/C++ Development Environment
- 10+ Years Development Tools
- Focus on Hardcore Developers
 - OpenGL 2.0 for 2D and 3D graphics
 - Box2D, Cocos2D-X, Lua, AND EVEN Qt!
 - STL and POSIX library support (including multi-threading)
- Allow for Hybrid Applications
 - AIR apps leveraging C/C++ libraries



BlackBerry WebWorks

Generic HTML User Interface



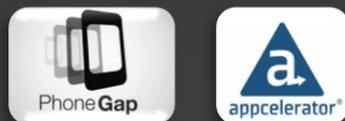
Premium Rendering Fidelity



Powerful Framework Support



Support for App Frameworks



Access 100% of the Native API's



Use the existing BlackBerry extensions, or build your own custom extensions to execute any class you've already built.

Open Sourced Apache 2.0



Community participation extends beyond the sole interest of RIM, check out: <http://blackberry.github.com>

Customizable Configuration



Define icons, features, and permissions. Enable communication protocols.



Compiled Native Application



No compromises, run in the background, run at startup, listen for pushed data, invoke other applications.

Enterprise Ready Application



Manage and deploy WebWorks applications with the most trusted MDM solution in enterprise.

Our Developer Platform

BlackBerry Handheld

BlackBerry
JDE

Webworks
HTML 5

Adobe AIR /
FLEX

Native +
Open
Source

BlackBerry Cloud Services Architecture
(BES, BIS, Push, Maps, Payments, BBM, Scoreloop, etc.)

BlackBerry OS

BBX OS

BlackBerry PlayBook & SuperPhone

BlackBerry WebWorks Mission

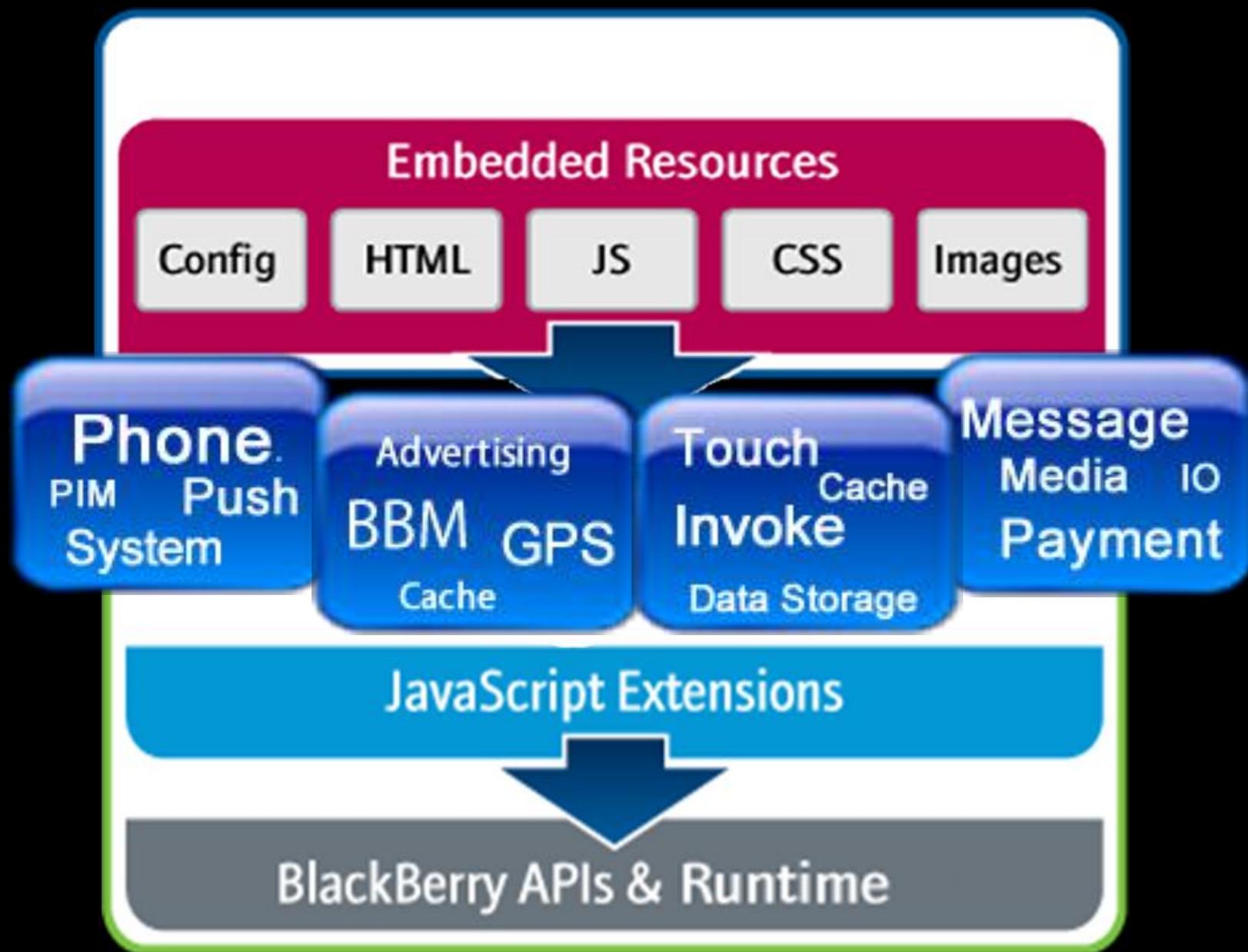
Save Energy use

Rule #2: BlackBerry WebWorks

To create, as a developer, a simple to use cross platform SDK for Web Developers to package their Web assets as a mobile application which has secure access to deeply integrated system level APIs



BlackBerry WebWorks Features



- No implementation knowledge needed
- Re-use Existing Assets
 - HTML/CSS/JavaScript
 - Images
 - Even existing Java!
- Supports multiple JS frameworks
- Allow for Hybrid Applications

WebWorks Example

<http://developer.blackberry.com/html5/api>

Minimum Items
Needed!



Simple.html

```
<html>
<head>
  <meta name="viewport" id="viewport"
content="height=device-height,width=device-width,user-
scalable=no"/>
  <script type="text/javascript">
    function doAlert() { alert('The name of
my app is: ' + blackberry.app.name); }
  </script>
</head>
<body onload="doAlert()">
  <h1>Hello World</h1>
</body>
</html>
```



Config.xml

```
<?xml version="1.0" encoding="utf-8"?>
<widget xmlns="http://www.w3.org/ns/widgets"
xmlns:rim="http://www.blackberry.com/ns/widgets" version="1.0.0">
  <name>Hello World App</name>
  <author>Me</author>
  <content src="simple.html"/>
  <feature id="blackberry.app"/>
</widget>
```

WebWorks Example



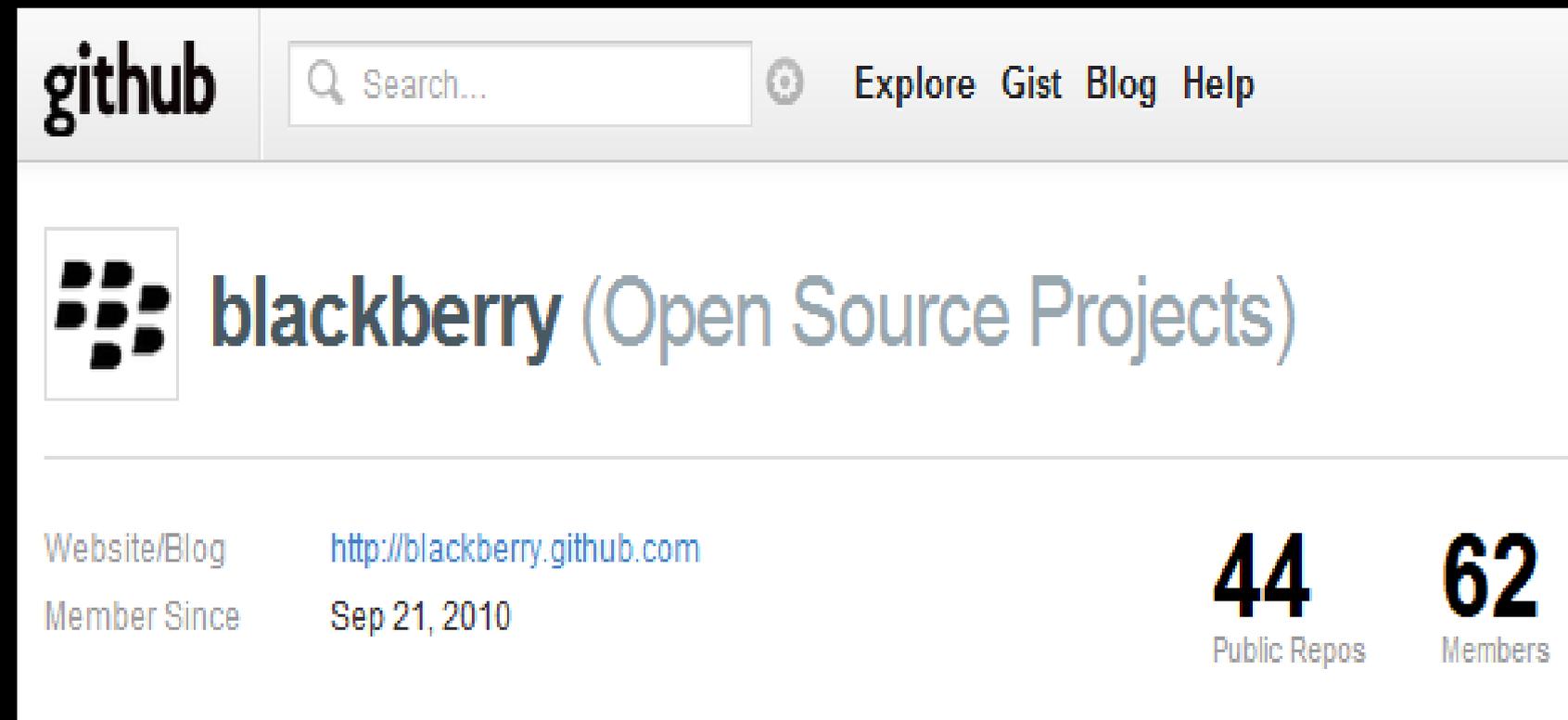
```
Web - Example/simple.html - Aptana Studio 3
File Edit Source Navigate Search Project Run Commands Window Help
App Expl... Project E...
Example
Type text to search in Project aA .*
config.xml
simple.html
1 <?xml version="1.0" encoding="utf-8"?>
2 <widget xmlns="http://www.w3.org/ns/widgets"
3   xmlns:rim="http://www.blackberry.com/ns/widgets" version="1.0.0">
4   <name>Hello World App</name>
5   <author>Me</author>
6   <content src="simple.html"/>
7   <feature id="blackberry.app"/>
8 </widget>
simple.html
1 <html>
2   <head>
3     <meta name="viewport" id="viewport"
4     content="height=device-height,width=device-width,user-scalable=no"/>
5     <script type="text/javascript">
6       function doAlert() {
7         alert('The name of my app is: ' + blackberry.app.name);
8       }
9     </script>
10    <body onload="doAlert()">
    <h1>Hello World</h1>
```



Rule #3: Cheat with GitHub



- WebKit
- Ripple
- WebWorks
- **Samples**
- Community API extensions
- Toolkits (Alice.js, bbUI.js)
- <http://blackberry.github.com>



The screenshot shows the GitHub profile page for the user 'blackberry'. At the top, there is a search bar and navigation links for 'Explore', 'Gist', 'Blog', and 'Help'. The profile header includes the BlackBerry logo and the text 'blackberry (Open Source Projects)'. Below this, there are statistics: 'Website/Blog' with the URL 'http://blackberry.github.com', 'Member Since' 'Sep 21, 2010', '44 Public Repos', and '62 Members'.

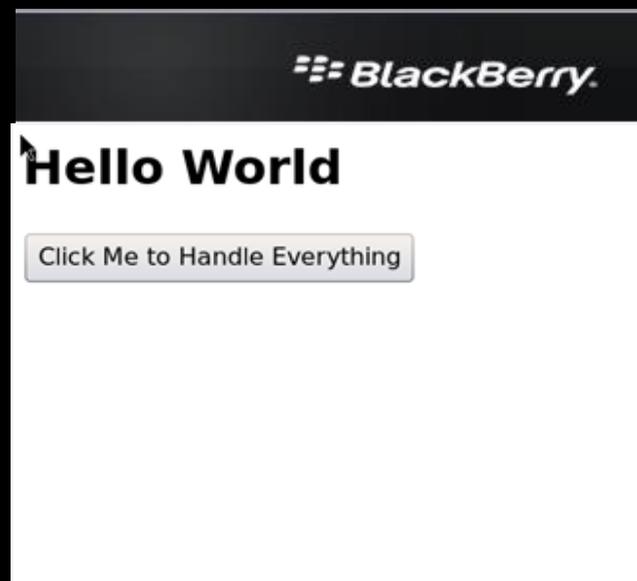
Website/Blog	http://blackberry.github.com	44	62
Member Since	Sep 21, 2010	Public Repos	Members

Barcode in 5 Minutes

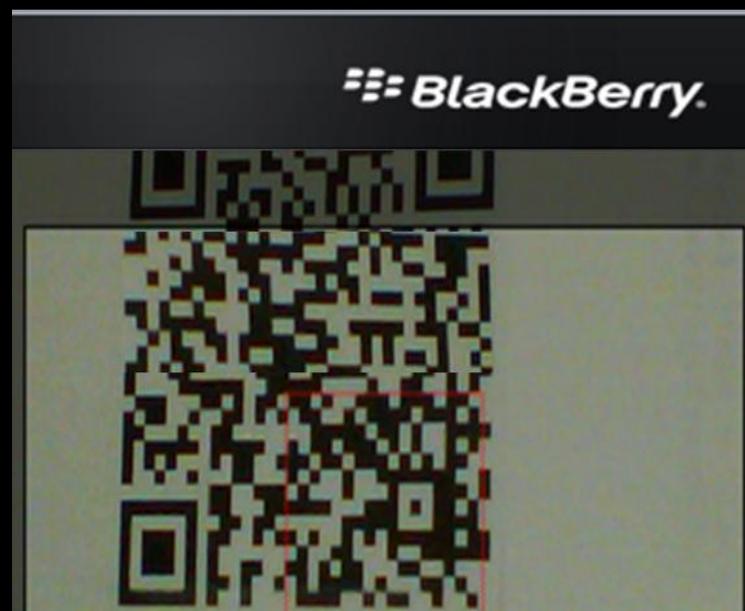
[WebWorks-Community-APIs / Smartphone / Barcode](#)

 [GitHub, Inc. \[US\] https://github.com/blackberry/WebWorks-Community-APIs/tree/master/Smartphone/Barcode](https://github.com/blackberry/WebWorks-Community-APIs/tree/master/Smartphone/Barcode)

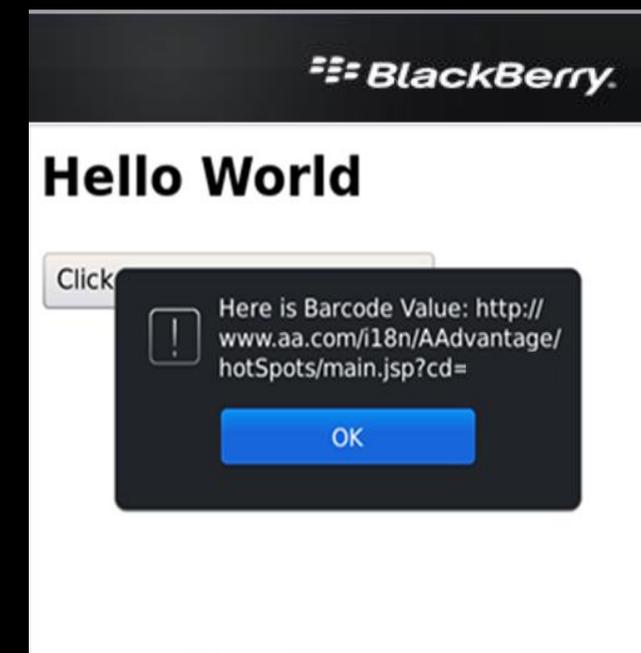
WebWorks extension covers the dirty work: displays camera, locates barcode and decodes the barcode.



Simple landing page with a button



A user click will invoke the WebWorks Barcode Extension.



Display results

Let's Review the Code...

Computer > Local Disk (C:) > SDKs > RIM > WebWorksSDK2.3.1.5 > ext >

- blackberry.push
- blackberry.system
- blackberry.system.event
- blackberry.ui.spinner
- blackberry.utils
- common
- webworks.io.FileUploader
- webworks.media.barcode

- | Name |
|-------------|
| webworks |
| library.xml |

Add JavaScript to do all the work from GitHub to WebWorks SDK

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <widget xmlns="http://www.w3.org/ns/widgets"
3   xmlns:rim="http://www.blackberry.com/ns/widgets" version="1.0.0">
4   <name>Hello World App</name>
5   <author>Me</author>
6   <content src="simple.html"/>
7   <feature id="blackberry.app"/>
8   <feature id="webworks.media.barcode"/>
9 </widget>
```

```
1 <html>
2   <head>
3     <meta name="viewport" id="viewport"
4       content="height=device-height,width=device-width,user-scalable=no"/>
5     <script type="text/javascript">
6       function doScan() {
7         try{ var options = {'tryHarder' : true, 'formats' : ['2D']};
8           webworks.media.barcode.scan(Analyze_BarCode, onError, options);
9         }catch(e){ alert("Error: " + e); }
10      }
11      function Analyze_BarCode(value){ alert("Here is Barcode Value: " + value); }
12      function onError(){ alert("Exception: Decoding Barcode"); }
13    </script>
14  </head>
15  <body onload="doAlert()">
16    <h1>Hello World</h1>
17    <button id="clickMe" onclick="doScan();">Click Me to Handle Everything</button>
18  </body>
19 </html>
```

BlackBerry WebWorks Big Picture



Take Away:



Test



Build



Deploy

Do-It-Yourself Apps with Major Impact

No Developers Required

My411

Reduce or eliminate 411 charges

Corporate 411 charges often thousands

Provide an alternative that is easier than dialing 4-1-1

Detailed instructions and
sample code available at:

<http://supportforums.blackberry.com/t5/Web-and-WebWorks-Development/Enterprise-Small-applications-that-can-have-major-impact/ta-p/1189179>

Related IT Policy

Outgoing Call Redirection IT policy rule

Allows administrator to redirect dialed numbers

ex. User dials 4-1-1, IT policy directs it to dial a toll-free service



Do-It-Yourself Apps with Major Impact

No Developers Required

My Portal

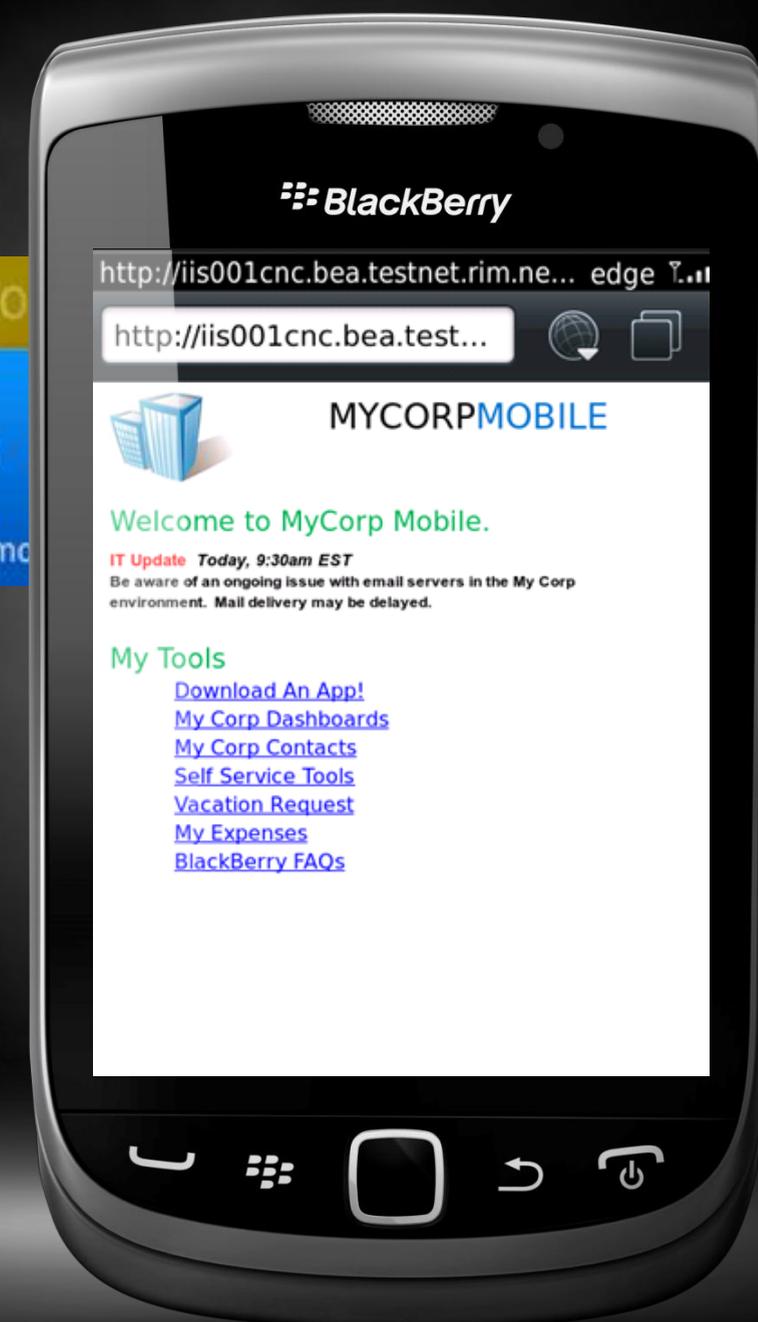
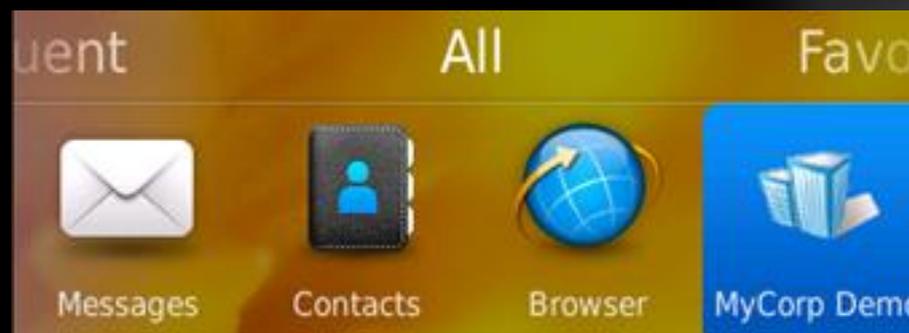
One-click access to your users' tools and resources
Icon that launches an internal web page
Create a simple webpage or point to existing portal

What some customers have done:

- A site including information for new hires
- A site hosting corporate applications for download (such as MyHelpDesk and My411)
- The company or team's web portal
- Promote internal numbers/contacts
- Page with company / product elevator pitch
- Sales team tool kit – soft glossies of all products/solutions
- Page that provides info – including available services

Detailed instructions and sample code available at:

<http://supportforums.blackberry.com/t5/Web-and-WebWorks-Development/Enterprise-Small-applications-that-can-have-major-impact/ta-p/1189179>



Do-It-Yourself Apps with Major Impact

No Developers Required

My HelpDesk

Your Logo, Your Help Desk

Help Desk Number

Extension

Toll-Free number

For Users:

A simple icon to click

Saving time and

Potential for cost savings (toll-free number)

Detailed instructions and sample code available at:

<http://supportforums.blackberry.com/t5/Web-and-WebWorks-Development/Enterprise-Small-applications-that-can-have-major-impact/ta-p/1189179>



Orlando World Center Marriott, Florida | May 1-3, 2012

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Register Early and Save

Be Bold at BlackBerry World™ 2012, the largest annual gathering for the BlackBerry® ecosystem.

Register by March 23 and save \$300 with the Early Bird Rate.



Last But Definitely Not Least

The Un-Official BlackBerry Developers Handy Guide



Thank you.