Mobile Portal Accelerator 7.0
Developing Mobile Portal Content with MPA
WebSphere User Group

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Agenda

- Business Perspective

- Web Content Management

- Mobile Portal Solutions

- New in 7.0

- WCM and Mobile Portal
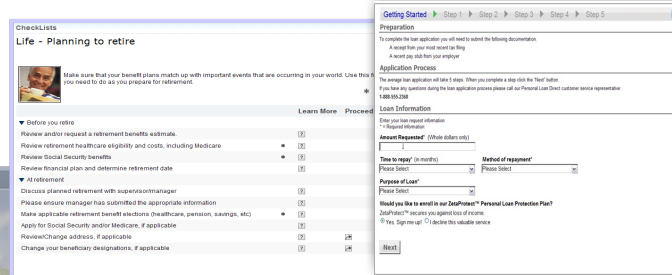
- Guides

- DemoSite

- Summary

Notice

Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.
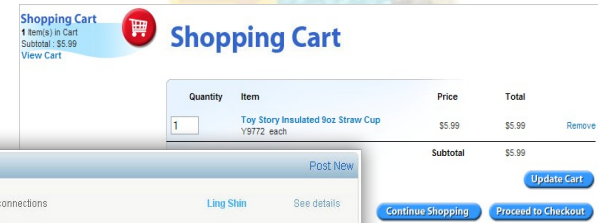
Business Perspective

Exceptional Web Experiences Often Require A Range Of Capabilities, Integrated Seamlessly

Instant Messaging
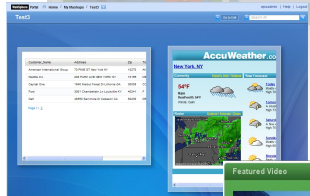
Workflow

Forms

Shopping Cart

Blogs

User Ratings

Dashboards

Authoring

Task List

Mashup
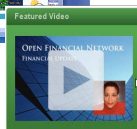
Experts

Personalized Content

Mobile

Video

Communities

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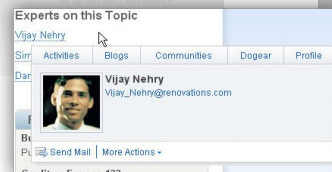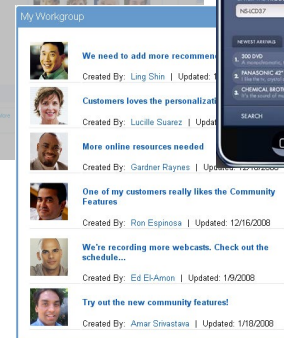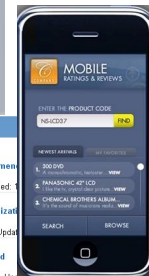
Market Perspective on Mobility

"**Mobility is here to stay,** and investment in tools to better support mobile and remote users represents a significant upside for the business as a whole." In fact, according to the Forrester study, 91% of enterprises with manual mobile support processes believe the ability to connect to a remote user's devices would be a key IT investment. **Improved worker and executive management satisfaction with IT is cited as a primary benefit (78%), with increased productivity of remote workers (72%) and IT efficiency (67%) also ranking highly.**

Source: Forrester: Remote Support Increases Staff Effectiveness
Published October 16, 2009

By 2013, mobile phones will overtake PCs as the most common Web access device worldwide. According to Gartner's PC installed base forecast, the total number of PCs in use will reach 1.78 billion units in 2013. By 2013, the combined installed base of smartphones and browser-equipped enhanced phones will exceed 1.82 billion units and will be greater than the installed base for PCs thereafter.

Source: *Gartner Highlights Key Predictions for IT Organizations and Users in 2010 and Beyond*
Published January 13, 2010

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Anywhere, anytime, any way

Online Activities Shifting

2000	2009	Online Activities Shifting
35%	81%	Research products & services
27%	75%	Buy a product
19%	66%	Make travel reservations
0%	62%	Watch a video
10%	57%	Do online banking
0%	47%	Use a social network site
0%	32%	Read others' blogs
0%	31%	Provide ratings
52%	77%	of US adults use the internet

Internet Users in the World
by Geographic Regions (MM)

25% of the world's population (1.734MM) are internet users

Region	Users (MM)
Asia	738.3
Europe	418.0
North America	252.9
LatAm / Caribbean	179.0
Africa	67.4
Middle East	57.4
Oceania / Australia	21.0
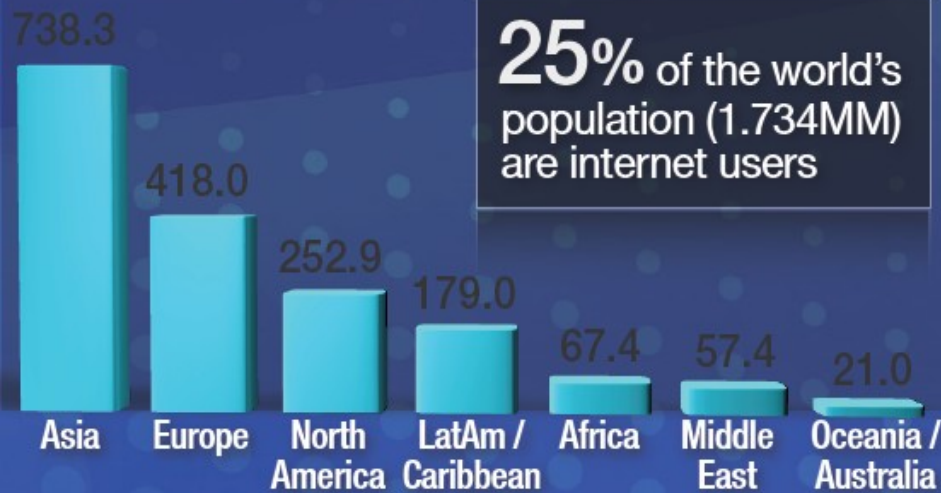
Source: Internet World Stats - www.internetworldstats.com/stats.htm
Estimated Internet users are 1,733,993,741 for September 30, 2009
Copyright © 2009, Miniwatts Marketing Group

...there are more mobile phones than computers connected to the internet

27% of U.S. households are now mobile only

Web visitors using a mobile device increased to 56.9 million in July 2009

58% of Americans have a mobile phone with Web connectivity

Browsing the web was the fastest-growing activity on mobile phones between the 2nd & 3rd quarters of 2009

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Business Benefits

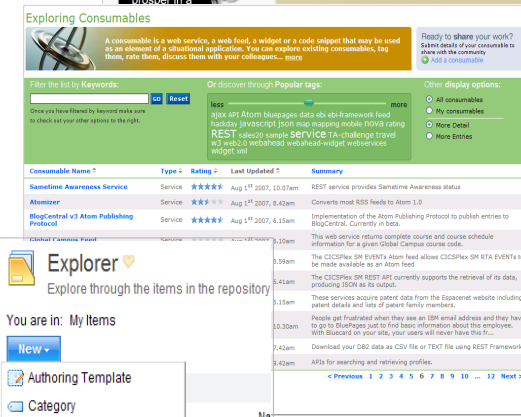## Exceptional Web Experiences:

Results that can't be ignored

- **400% higher** visit-to-lead conversion rate
- **200% higher** visit-to-order conversion rate
- **41% lower** page abandonment rate
- **16.6% more** recommendations by customers for products and services
- **15.8% fewer** customers lost to competitors
- **14.1% repeat purchase** interest by customers
- **30% higher rating**** of self service web over Help Desk
- **75% faster**** time to roll out new customer applications

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WebSphere Portal and Lotus Web Content Management 7.0

- **Seamless convergence** of **Web Portal** & **Web content management**
- **Socially-Infused Web experiences** with out-of-box **Blogs** & **Wikis, Tagging**
- **Community content value measurement** enabled by **Ratings**
- **Ubiquitous Web experience development** with new **IBM Universal Hub Integration** capability
- **In-line business user content management** via **Rich Editor** enhancements & **Lotus® Symphony™** integration

- **Enhanced Web analytics support** for greater insight into user behavior
- **Virtualization support** increases deployment/cost-of-ownership flexibility
- **Faster custom Web experience development** with new **WebSphere Portlet Factory V7.0**
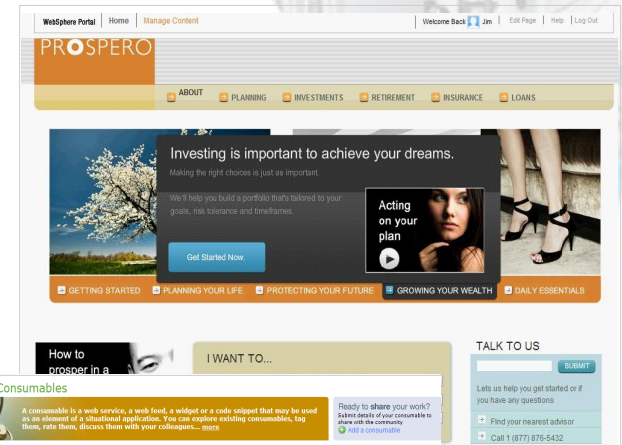
Techniques for Creating Exceptional Mobile Experiences

Browser Based, Web Applications

- Accessible over the internet without need to download software

- Uses device browser to display content
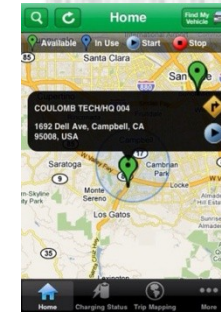
Hybrid – Both Web and Native Components

- Native looking applications which utilize the browser interface to deliver content

- Provide the ability to use native device features without writing code for each device

Native

- Able to make use of phone's native features such as camera, GPS, accelerometer, calendar, etc..

- Supports the richest of user experiences (e.g., gaming applications)

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Exceptional Web and Hybrid Mobile Experiences

With a web or hybrid mobile application approach you can:

- **Leverage existing and widely available skill sets** (HTML, Javascript, CSS), rather than re-training your developers or finding new developers ($$$)

- **Simplify distribution and retain control over application updates**, rather than waiting for customers to update or acquire their applications from the app store

- **Save costs by leveraging a common infrastructure** for both web and mobile applications

- **Build engaging, native-looking apps** using existing web technologies & emerging standards like html5, and CSS3

- **Save time and lower maintenance costs** by developing applications for smartphones that support Webkit based mobile browsers *(Android, Safari, WebOS, S60)*

Economics of Web & Hybrid Approaches

# of apps (cost)

Native

Hybrid + Web

# of devices

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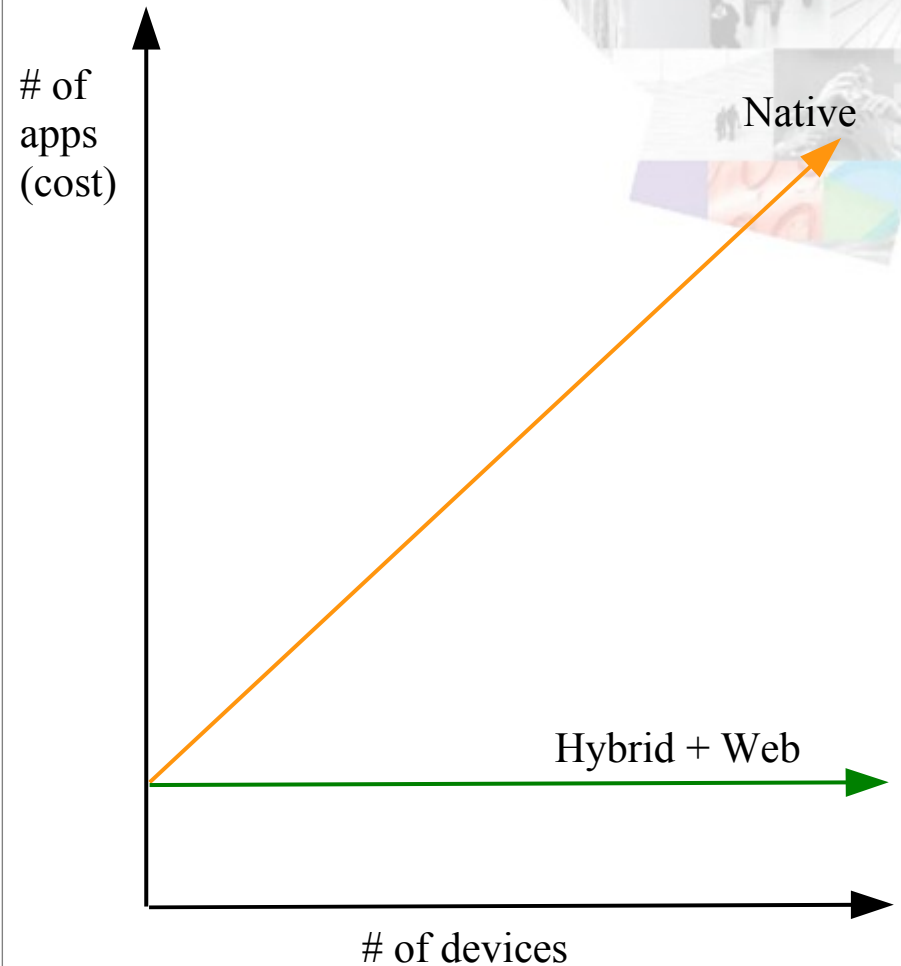
Mobile Solution Considerations

Needs

...develop, manage and deploy **mobile web applications** for virtually any mobile device browser

OR

...develop, manae and deploy **web** and **hybrid** mobile applications for select **smart phone** and **smart** devices?

7,500 + Devices

iPhone, iPad, Android, Blackberry

Solutions

Mobile Portal Accelerator

WebSphere Portal Themes
+
WebSphere Portlet Factory

Why Leverage a Portal Framework for Mobile Solution Delivery?

To create mobile applications that:

1 **Integrate** with your back-end systems, including web content management

2 Are **personalized** to a user's role, preferences, and behavior

3 Support **end-user customization**

4 Are **secure**

5 Can be measured and optimized using **analytics**

6 **Can adapt** their presentation and functionality according to the device

Web Browser

Mobile

RSS / Atom

One common framework for mobile & web applications

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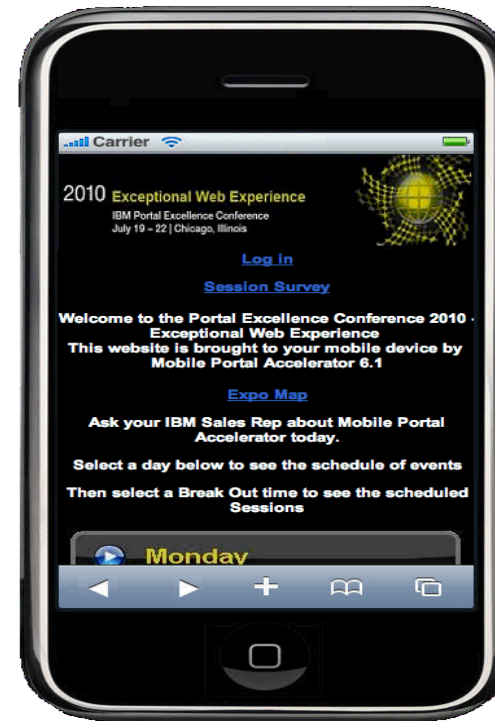
Exploit device capabilities

Provide an Exceptional Web Experience on each device
Don't make the device conform to your site, your site should conform to the device

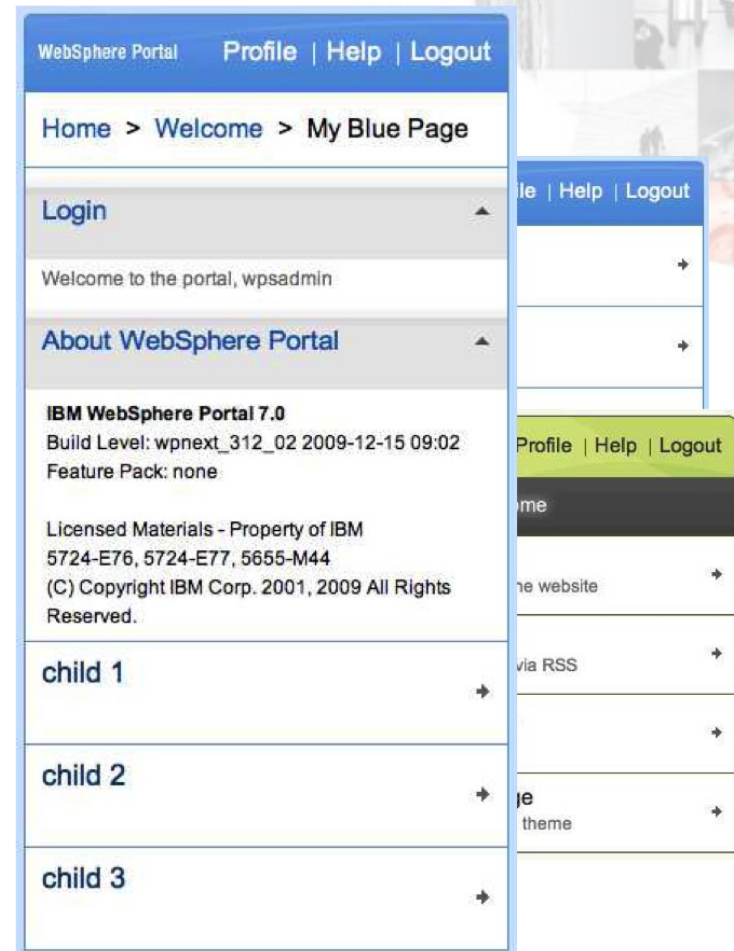Standard web site

iPhone version of site

More than 75% of iPhone users say it has led them to do more mobile browsing.

About 40% of iPhone users say the iPhone has trouble displaying some websites they want to visit.

Websphere Portal Themes for Smartphones

- **Extend Portal web experience to mobile** devices though the use of Portal themes for smartphones

- **Create native-looking smartphone Portal themes** using familiar technologies and skillsets (HTML, CSS, Javascript)

- **Use WebSphere Portal's built-in** support for markups and client detection to redirect mobile users to a specialized new mobile theme optimized for smartphone devices

- **Sample iPhone theme** can be downloaded on Portal Solutions catalog.
https://greenhouse.lotus.com/plugins/plugincatalog.nsf/assetDetails.xsp?action=editDocument&documentId=3148931F1C482700852576AC0050BD8C&Login

WebSphere Portal   Profile | Help | Logout

Home > Welcome > My Blue Page

Login ▲

Welcome to the portal, wpsadmin

About WebSphere Portal ▲

IBM WebSphere Portal 7.0
Build Level: wpnext_312_02 2009-12-15 09:02
Feature Pack: none

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child 1 →

child 2 →

child 3 →

le | Help | Logout →

Profile | Help | Logout
me
e website →
via RSS →
je
theme →

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WebSphere Portlet Factory for Smart Phones

▪ **Automate the creation of smartphone-optimized applications,** eliminating coding and speeding time to market

▪ **Support your multi-channel strategy.** Create once and run on multiple devices and in multiple formats:

  ▪ Mobile-optimized web applications (iPhone, Blackberry, Android, iPad)

  ▪ Portlets or widgets (WebSphere Portal)

  ▪ Web application (WebSphere Application Server)

▪ **Quickly integrate your back-end systems** into your mobile applications with a robust set of connectors (SAP, Domino, relational DB, web/REST services, PeopleSoft, Siebel, and more)

▪ **Create native-looking smartphone web applications** using familiar technologies and skillsets (HTML, CSS, Javascript)

▪ **Leverage the smartphone application samples** to speed development and learn best practice techniques, including how to best support geolocation and phones' orientation features

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IBM Mobile Portal Accelerator

Optimized Multi channel delivery of WebSphere Portal applications mobile devices

Mobile Device Update Service simplifies process of supporting growing market of mobile web devices

WebSphere Portal Services

- Portlets
- Web Content
- Web Services
- REST Services
- Feeds
- Gadgets & Widgets
- Mashups
- SOA & Composite Apps
- Tasks, Workflow
- Documents
- Syndicated Content

IBM WebSphere Portal

Personalization

Processes

Syndication

IBM Mobile Portal Accelerator

PCs & full browsers

Mobile Devices

Dynamically Adapted & Rendered

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Mobile Phone Diversity

There are thousands of makes and models of mobile devices in the marketplace

Different:
- Screen Sizes
- Browsers
- Mark-up Languages
- Keyboards
- JavaScript
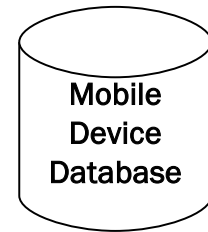- Layout
- Images
- Carriers
- Operating Systems
- Networks

MPA in a nutshell

How does the Mobile Portal Accelerator (MPA) Work?

1 → A user calls a Portal URL from a mobile device

2 The portlet servlet retrieves the requested data from the datasource

→ **3** The MPA includes the hardware and software characteristics for over 7400 mobile devices. It selects the specific characteristics for the mobile device calling the page.

Mobile Device Database

The MPA aggregator combines the data, themes, skins, content, and specific device layout directives **4**

5 ← The aggregator generates the portlet according to the device directives contained in the database. The portlet is then sent to the calling device.

Results Page
Records Found: 11

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MPA Architecture

Mobile Portal Accelerator Architecture Overview

Devices

WebSphere Application Server

WebSphere Portal

MCS runtime

New WP "Aggregator" : Themes, Skins, Screens

Portlets

Web Container

EJB Container

External Systems

Assets

MCS Repository

Markup

Layout

Theme

Device

Optional:
Media Access Proxy (MAP)

Mobile Portal Toolkit
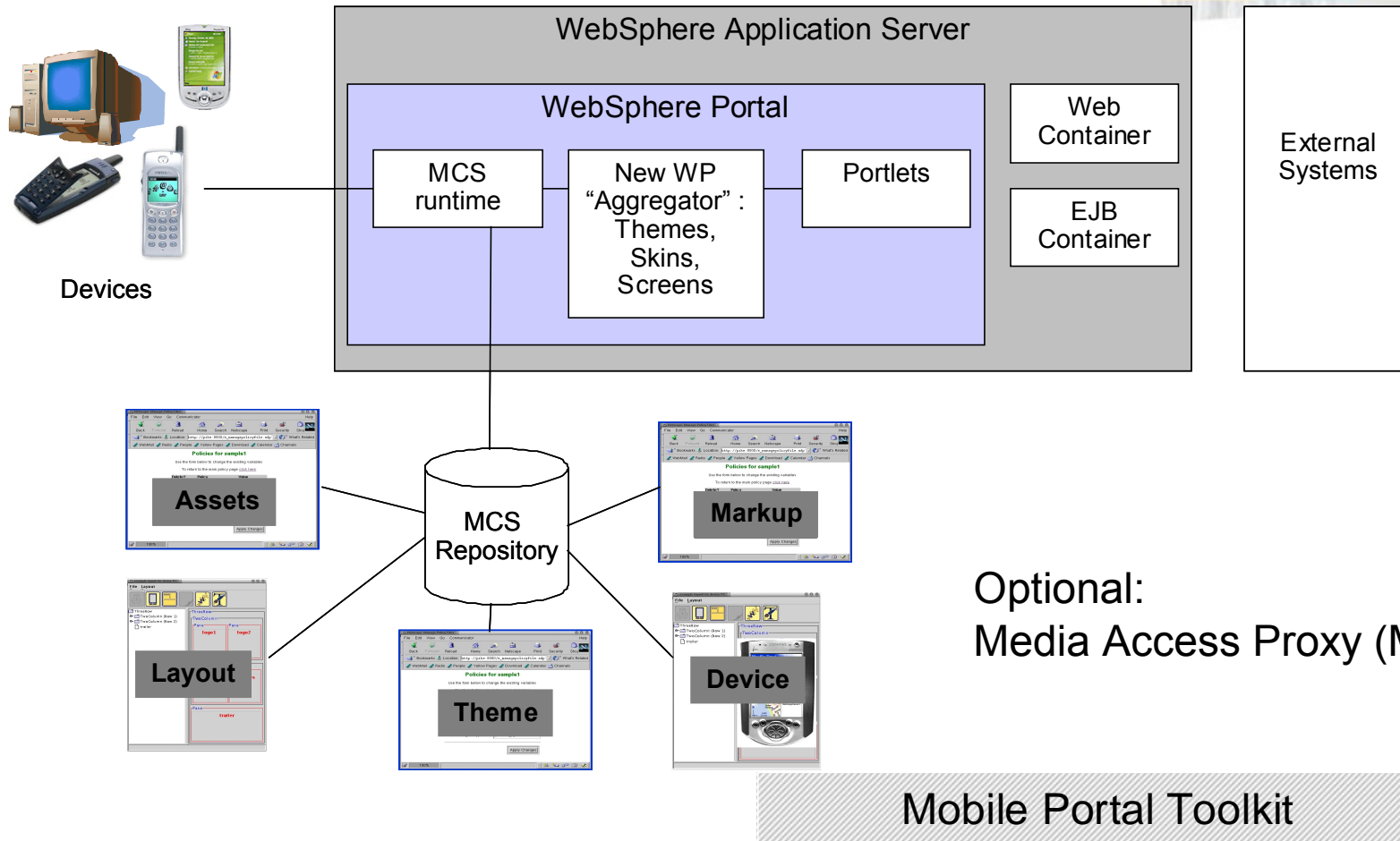
Device Repository

Mobile Portal Accelerator Device Update Service
Device Repository

Rich Mobile Device Repository

    Over 7400 devices and growing...

    Up to 600+ attributes per device

    Aligned with W3C CC/PP and
        WAP Forum UAPROF

Robust Device Identification
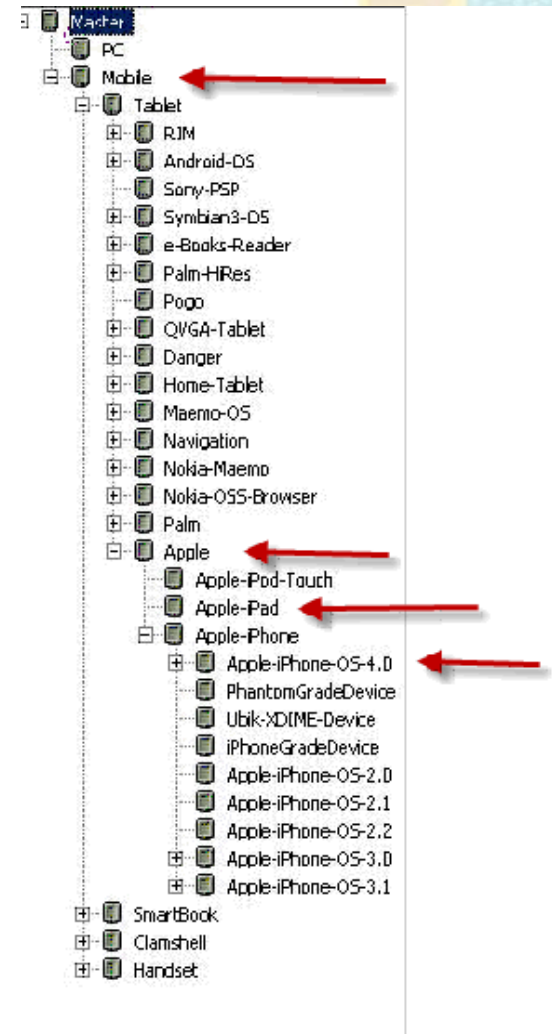
    compressed XML file in RAD

    DB based on Server
    (DB2, Oracle, SQL Server)

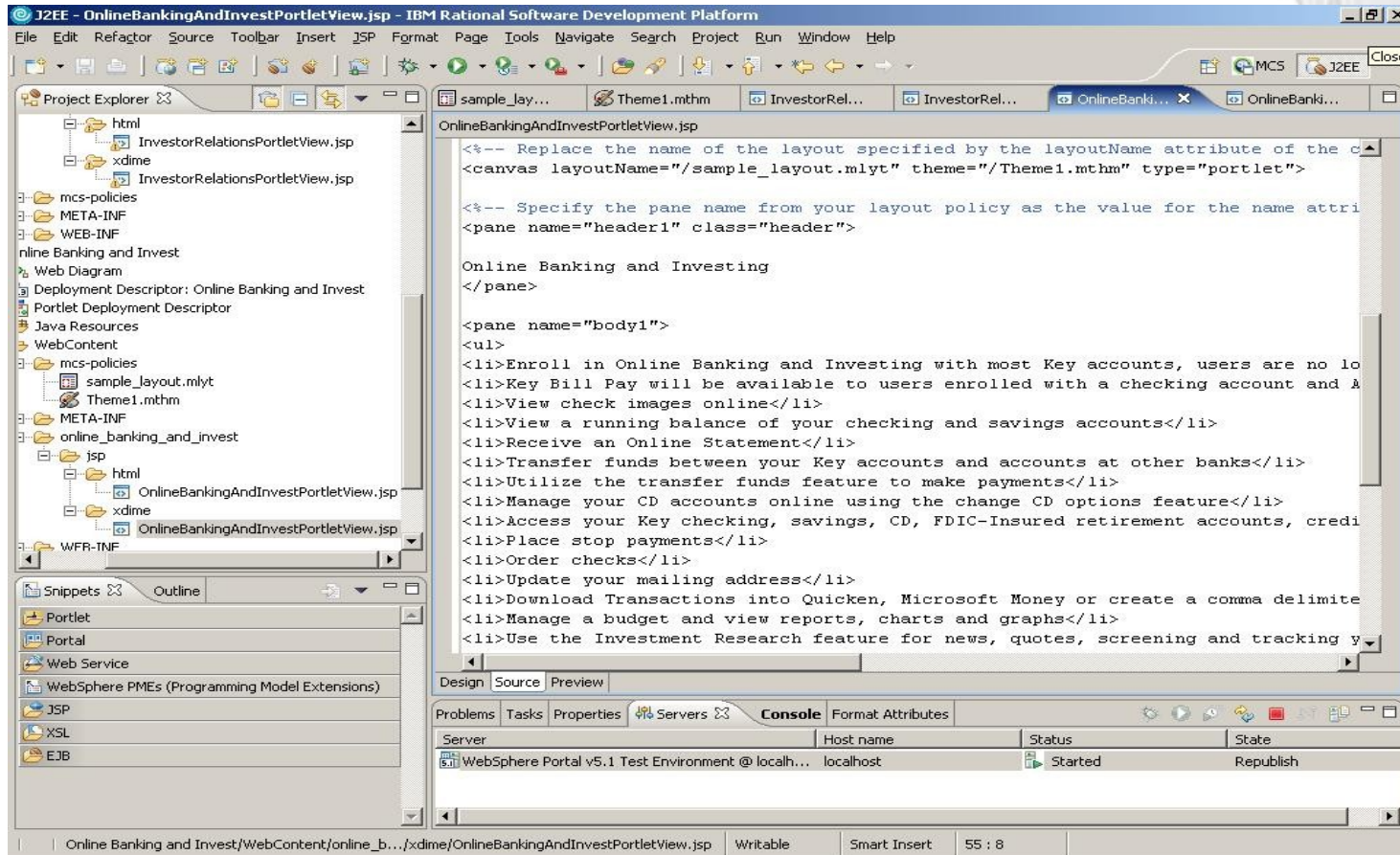Inheritance/fallback

    Device Attributes

    Design Policies

Device update service

Development Environment

Mobile Portal Toolkit Eclipse plug-in to Rational Application Developer or Rational Solution Architect (RAD/RSA) Version 8

IBM Mobile Portal Accelerator 7.0

New:

Support for WebSphere Portal and Lotus Web Content Management Version 7

Serviceability Enhancements Improve TCO
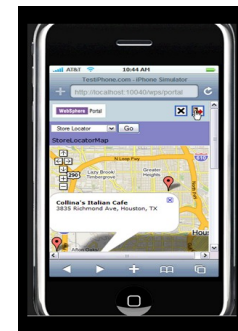
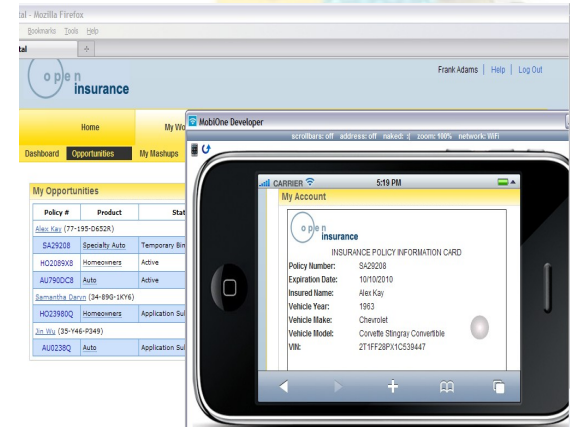Updated Multi-Channel Server Version 5.3

Updated Media Access Proxy (MAP) Version 5.3 image conversion server

Speed time to Deployment:

New Mobile out of box solutions and examples: Deployment Best Practices, Cluster Installation, Using Virtual Portals, Updated Troubleshooting Guide

How to documents: Create a Mobile Theme Layout, "XDIME" Enable an existing portlet, How to documents: Integrate Web Services, Javascript features, and Stream Video Content

Updated Mobile Portal Toolkit support for RAD/RSA V8.0

MPA 7.0 – MCS Release Highlights

Multi-Channel Server (MCS) Version 5.3 New Features :

Client Framework 2: Allows developers to create applications with a rich client-side user interface, and permits extended customizations. Supported on high end browsers.

Client Framework 1 enhancements: Addition of widget:block and gallery:slideshow elements, mcs-button-style property, Carousel widget, and the ability to retrieve the contents of a popup from an external source using AJAX.

Monitoring and managing caches: MCS 5.3 uses caching to avoid accessing the repository for policies that have been retrieved recently for improved performance.

Selecting variants by expression: Users can use expressions to target variants by device capabilities based on policies from the device repository.

Viewport optimization: Users can use the viewport meta tag to control the settings of the viewport on Internet Explorer Mobile 6 and Opera Mobile 9.5.

Dial links in XDIME 2: Users can use the tel: prefix to define a dial link using the href attribute in XDIME 2.

Colspan and rowspan attributes: Allow users to extend columns and rows across other columns and rows.

For more information, see the topic Introduction to Multi-Channel Server from the Mobile Portal Accelerator Version 7 InfoCenter:
http://publib.boulder.ibm.com/infocenter/mpadoc/v7r0m0/index.jsp

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Media Access Proxy

Updated Media Access Proxy (MAP) 5.3

IBM Mobile Portal Accelerator now uses Media Access Proxy (MAP) 5.3 to convert images to different formats for different device types. This function was previously performed using the Image Conversion Service.

The Media Access Proxy (MAP) web application is used to convert images to different formats for different device types.

Because different devices also handle images in different ways, the MAP can convert images to a different format and pixel depth reducing the color depth for a smaller color palette and scaling images for a smaller screen size.

The Media Access Proxy (MAP) sample portlet demonstrates the various features of MAP version 5.3, including image conversion, cropping, scaling and watermarking. http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Demonstrating_the_Media_Access_Proxy_(MAP)_Sample_Portlet

MAPSample

Source Image

Cropped Image

Image Parameters

MPA and LWCM 7.0
MPA Version 7 Extends Lotus Web Content Management Web Content to Mobile Devices
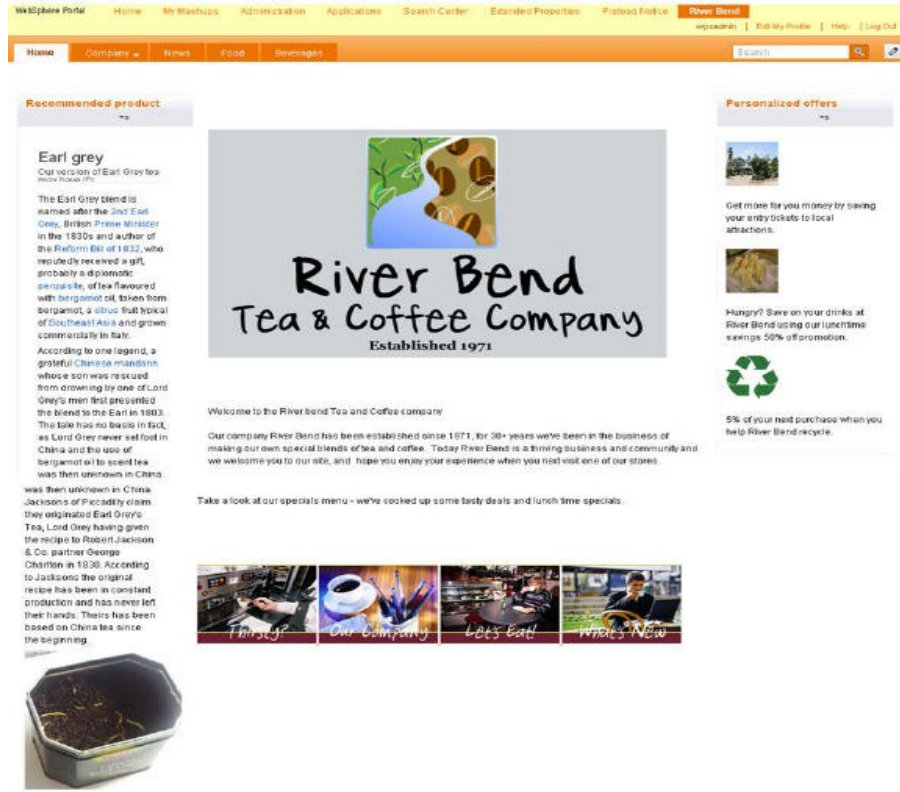
See step by step instructions in IBM redbook: **Creating External Web Sites with IBM WebSphere Portal:**
http://wiki1.swg.usma.ibm.com/ldd/portalwiki.nsf/xpViewCategories.xsp?lookupName=Redbooks%20Wiki%3A%20Creating%20External%20Web%20sites%20with%20WebSphere%20Portal

Mobile Portal Accelerator Version 7 InfoCenter: http://publib.boulder.ibm.com/infocenter/mpadoc/v7r0m0/index.jsp

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How to guides

Speed time to Deployment with new "How to" Guidance and Mobile Samples

New Mobile out of box solutions and examples:
(available on the Mobile Portal Accelerator wiki):

How to documents:

"XDIME" Enable an existing portlet, http://www-10.lotus.com/ldd/portalwiki.nsf/dx/How_To_XDIME_Enable_An_Existing_Portlet

Shows how to enable an existing JSR 168 portlet application to support mobile devices via XDIME markup. (includes sample)

**How to Call a Web Service from a Mobile Portlet:**

http://www-10.lotus.com/ldd/portalwiki.nsf/dx/How-To_use_a_web_service_with_MPA

Developing a Mobile Portlet using JavaScript

http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Developing_A_Mobile_Portlet_Using_Client_Side_Scripting

Best Practices for Developing Mobile Portlet Applications :http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Best_Practices_for_WebSphere_Everyplace_Mobile_Portal_Design

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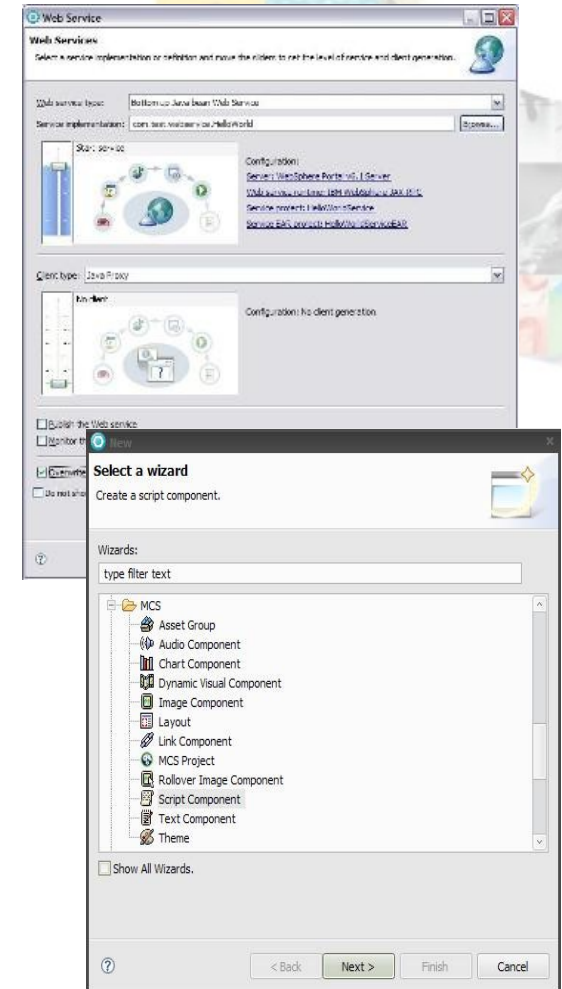
Mobile Video Streaming

"How To" document:

Developing a Mobile Portlet to Stream Video Content:

http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Developing_a_mobile_portlet_to_stream_video_content

Describes the process in streaming windows media video based content to mobile devices through mobile portlets. It uses Windows Media Services 9 series which is an end-to-end platform for streaming live or on-demand video or audio content.

Layout Design

Add Publishing Point Wizard

Publishing Point Name
The name is included in the URL a client uses to connect to the content.

Use a meaningful name such as the type of content streaming from the publishing point. What name do you want to use?

Name:

racecar

Tip
Avoid these characters when naming your publishing point:
< > \ / ? % & ' # " { } | ^ [ ] *

< Back   Next >   Cancel   Help

WebSphere Portal

Video Stream

Clip: Race Car
Duration: 5 mins

Powered by: Windows Media
Type: WMV

Personalisation

- **Mobile "X-Dime Enabled" enabled Sample Personalization Demo Portlets.** Extend the "YourCo" YourCo User Info, YourCo General News, YourCo General News Details, YourCo Internal News, YourCo Products, YourCo Promotions, YourCo Offer Banner, YourCo Offers and YourCo Services portlets (that are shipped with WebSphere Portal base product) so that these portlets can be renderd on mobile devices using MPA. http://www-10.lotus.com/ldd/portalwiki.nsf/dx/MPA_Sample_Personalization_Demo_Portlets_for_Mobile

- **Device (Mobile) Attribute Based Personalization using MPA:** In this tutorial, we extend the capabilities of Websphere Portal attribute based personalization to a mobile device using MPA. A device has numerous properties/attribute and based on these properties/attributes values we can apply rules, that is we can decide to show or hide a portlet or page. This kind of personalization is very useful in places where we need to render a portlet or page based on device capability. http://www-10.lotus.com/ldd/portalwiki.nsf/dx/MPA_Mobile_Attribute_Based_Personalization

Hardware / Software requirements

- Mobile Portal Accelerator V7.0 supports the following:

    · AIX V6.1 ML4 and the 64-bit kernel

    · Red Hat Enterprise Linux Advanced Server RHEL AS V5.2 on an Intel x86 64-bit server

    · SLES 10 service pack 2 (using the Linux 2.6.16.46 kernel), on an Intel x86 64-bit server

    · Sun Solaris version 10 and the 64-bit kernel

    · Microsoft Windows Server 2008 and the 64-bit kernel

· WebSphere Portal 7.0 or higher (Server, Enable, Extend or Customer Experience Suite V7)

    · DB2 Enterprise Server Edition and Workgroup Server Edition Version DB2 UDB V9.1 FP5 Enterprise Edition, Workgroup Server Edition 9.5 FP3 and Workgroup Server Edition 9.7, or Oracle Enterprise Edition 11g, or Microsoft SQL Server 2005 Enterprise Edition (with native Microsoft Drivers on the Microsoft Windows Server 2008 platform)

    · IBM Rational Application Developer 8.0 or IBM Rational Software Architect 8.0 (prerequisite to use the Mobile Portal Toolkit)

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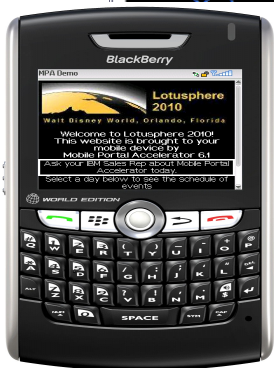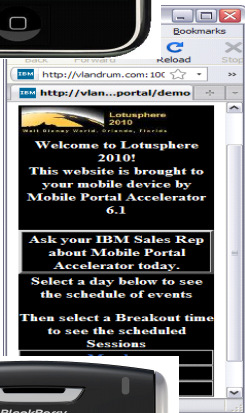# Demo Site

MPA Demo
http://PEC2010.com

Demonstration

Summary

IBM Mobile Portal Accelerator Version 7
Deliver Exceptional Web Experiences to mobile devices

– **Gain Market advantage & Increase customer's loyalty**

– **Leverage your existing IT investment**

– **Reduce time to market, accelerate development and deployment**

- Multichannel delivery of WebSphere Portal and Lotus Web Content Management content

- Aggregation of a broad mix of applications into a unified display

- Write once, render on multiple devices -- supports over 7400 devices

- Navigation, role-based, personalized mobile content delivers competitive advantage

- Security, access control, and single sign-on

- Templates for rapid site development and enforcement of style guidelines

- Device Updates ensure support for latest in-market devices and their updates

Questions?