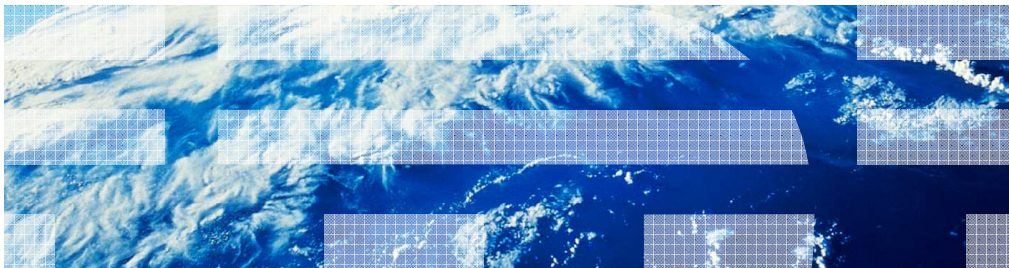


WebSphere Commerce V7 Feature Pack 4

Mobile enhancements



This presentation provides an overview of the mobile commerce enhancements in WebSphere Commerce Version 7 Feature Pack 4.

Table of contents

- Overview
- Starter store summary

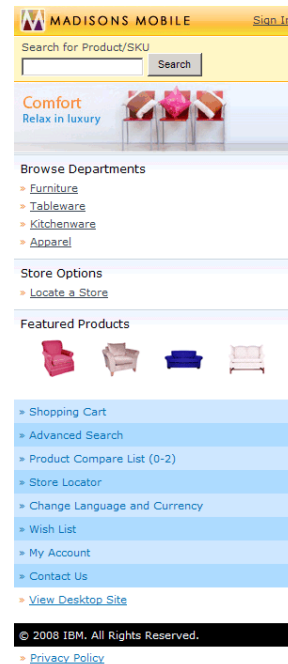
This presentation begins with an overview of the mobile commerce solution and then examines each of the new mobile starter stores.

Overview

This section provides an overview of the mobile commerce enhancements.

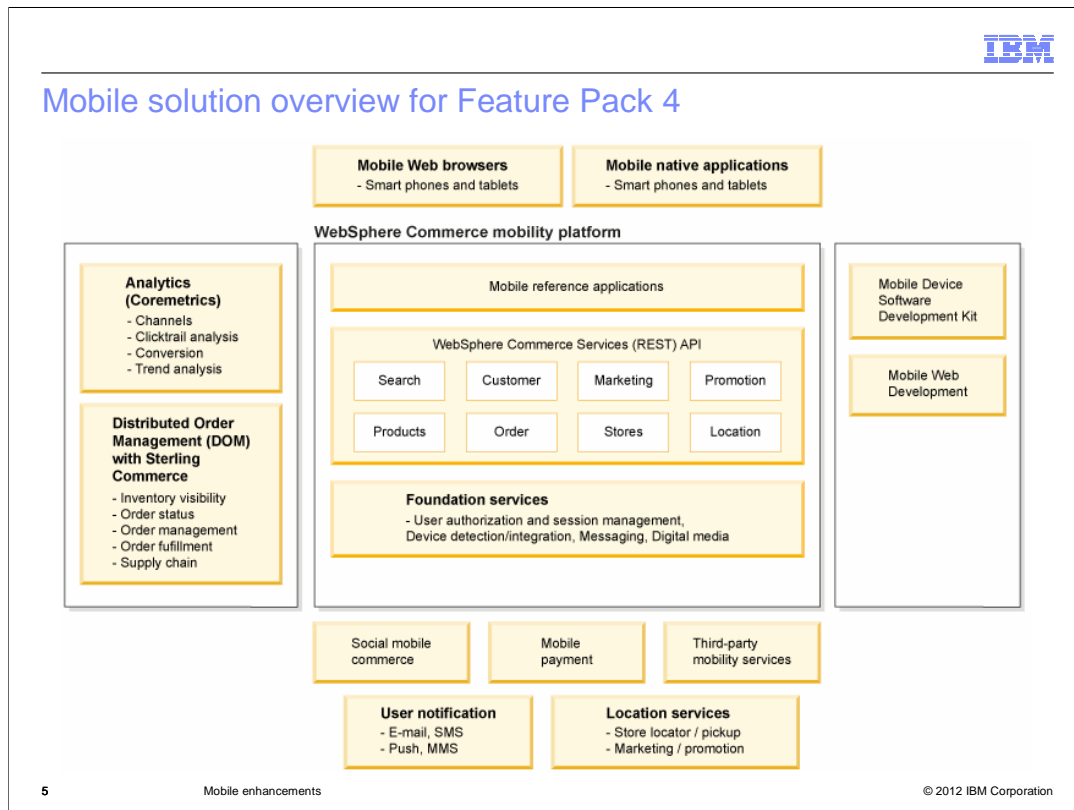
Existing mobile solution (V7)

- Madisons mobile starter store
- Streamlined store view for mobile browsers
- No device-specific features
- Requires in-store pickup of orders
- Still available if required



WebSphere Commerce V7 introduced a Madisons mobile store template for use on smart phones. This streamlined template allowed shoppers to browse and place orders from their mobile phone browsers. The mobile store provided simplified screen layout and smaller graphics than the desktop version of Madisons but it did not make use of any device-specific features of the phones. It also supported only a limited shopping flow that required in-store pickup of orders. This presentation looks at the next generation of mobile store solutions. The original Madisons mobile store template is still available but has not been updated with any of the features discussed in this presentation.

Mobile solution overview for Feature Pack 4



This chart summarizes the mobile solution in Feature Pack 4. The top of the diagram shows the various ways smart phones and tablets can access a WebSphere Commerce store. New store layouts are provided for viewing the store from a smart phone or tablet browser. There are also device-specific sample applications for Android and iOS devices. Collectively, the mobile web stores and applications are referred to as the mobile reference applications. Similar to the traditional starter stores, the device-specific applications make use of services to access the WebSphere Commerce application. A new REST service layer has been added that is used by the mobile native applications. The web-based mobile stores use the existing OAGIS services through getData tags. In some cases data beans are still being used.

The left side of the diagram lists WebSphere Commerce capabilities that can be added to the mobile reference applications such as analytics and distributed order management (DOM) integration. For example, cross channel inventory availability and orders submitted through the mobile channel can be processed by your back-end DOM system. The right side of the diagram lists the technologies used in building the mobile reference applications. Finally, the bottom of the diagram highlights other integrations that are possible with this solution such as user notification capabilities, social mobile commerce, mobile payment, location services and other vendor mobility services.

Mobile solution terminology

- Mobile web
 - Smart phone
 - Tablet
- Native application
- Hybrid application

The terms shown on this slide are used throughout the presentation to describe different pieces of the mobile commerce solution. Mobile web refers to any store that is accessed through the web browser on a mobile device. The mobile device can be either a smart phone or a tablet.

A native application is device-specific and is downloaded and installed from an application store or marketplace. Once installed, the application provides direct access to the online store. It also allows access to other device features such as the address book or camera. A native application is built to run on a single platform. It uses REST services to communicate with WebSphere Commerce.

A hybrid application shares the same characteristics as a native application with one important difference. Instead of being purely device-specific, the storefront browsing is done through a WebKit browser embedded within the application. This allows the hybrid application to access device features such as the address book or camera but it can also reuse the JSP pages built for the mobile web application.

This presentation does not cover the mobile solution architecture in detail. You can find more information in the mobile application architecture presentation in the programming model section.

Mobile sample summary

- Mobile platform support summary

Mobile Web		Native Application	Hybrid Application
Smart phone	Tablet	Smart phone	Smart phone
✓ Android iPhone Blackberry Other WebKit-based Web browsers	✓ Android iPad Playbook	✓ Android	✓ Android iPhone iPad

- Mobile deployment trade-offs

	Mobile Web	Native application
Richness of mobile presentation and services	Low	✓ High
Maintenance cost: Total Cost of Implementation (TCOI)	✓ Low	High
Portability (multiple devices support)	✓ High	Low

This slide summarizes the type of mobile reference applications available for each device type. The mobile web stores for smart phones and tablets are available for the widest range of devices. The web applications require WebKit based browser support such as is available in iOS, Android, and Blackberry 6 devices. For older smart phones, the mobile web store released in WebSphere Commerce V7 can still be used. Two types of device-specific applications are available for mobile devices. The native application is available only for Android phones. A hybrid application is available for both Android phones and iOS devices such as iPhones and iPads. The iOS hybrid application is available as a separate download. It is not included with Feature Pack 4.

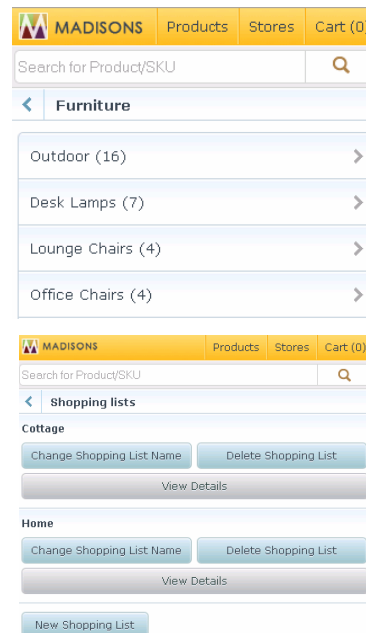
There are several factors to consider when choosing which mobile solution to deploy for your store. The fully native application provides the richest experience for the shopper but results in higher maintenance costs and is not portable across devices. The mobile browser solution provides the best portability and lowers maintenance costs but lacks the richness of a purpose-built application. The hybrid application helps to balance these two extremes. The native application frame provides the application experience and the use of the built in browser to display most of the store content means the bulk of the functionality is portable and centrally maintained.

Starter store summary

This section covers the starter stores included in the mobile commerce solution.

Smart phone and tablet web store enhancements

- WebSphere Commerce search
 - Search-based navigation
 - Search facets (tablet only)
- Full checkout flow
 - Ship to address
 - Pickup in-store
- Multiple wish lists (smart phone only)
- Search engine optimization
- New technology
 - Dojo mobile v1.7
 - HTML5
 - CSS3



The smart phone and tablet web stores introduced in Feature Pack 4 include many popular features from the desktop Madisons store. The WebSphere Commerce search feature introduced in Feature Pack 2 has been added to support search-based navigation and, in the tablet store, search facet display. Both ship-to address and pickup in-store checkout options are available. The smart phone store demonstrates the multiple wish list capability and both stores support the search engine optimization method introduced in Feature Pack 3. The mobile web stores also make use of new technologies to provide a rich user experience. These include the Dojo mobile toolkit v1.7, HTML5 and CSS3.

New features for native and hybrid applications

- 2D barcode scanning
 - Requires separate barcode scanning application (such as Zxing)
- Voice search*
 - Requires Google Voice Search
- Store locator map integration
 - Requires map key from map provider

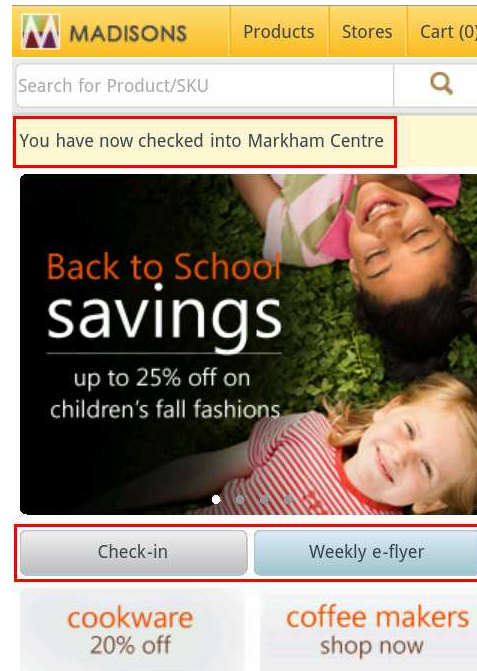


*Android applications only

The Android and iOS applications have access to native device capabilities and can make use of other installed applications to provide features not available in a browser-based store. Both the pure native and hybrid applications support 2D barcode scanning and voice search. These features require additional applications as shown on the slide. One exception is the iOS hybrid application which does not include voice search support. The store locator feature can be integrated with a map provider to show the location of physical stores and to find the nearest store based on GPS data. This integration requires a key from the map service provider be included in the application before it is made available to customers.

Location-based services

- Check-in
 - Shoppers indicate their location and receive location-specific information or rewards
 - Smart phone web store, hybrid and native applications
- eFlyer
 - Display region or location-specific advertising
 - Smart phone web and tablet stores, hybrid application



11

Mobile enhancements

© 2012 IBM Corporation

Feature Pack 4 includes a location-based services feature. The location-based services supported in Feature Pack 4 are store check-in and eFlyer. Store check-in allows shoppers to indicate when they arrive at a physical store. Marketing managers can react to check-in events and target store-specific rewards or advertising to the shopper. The eFlyer provides a way to display location-specific advertising in the store such as a weekly sales flyer for the closest physical store or sales region. The precision marketing tools in Management Center have been enhanced to support these new marketing capabilities.

The check-in feature is provided in the smart phone web store and device-specific applications only. It is not available in the tablet store. The eFlyer feature is available in both the smart phone and tablet web stores and the Android hybrid application. It is not included in the Android native application.

You can find more information in the location-based services presentation in the programming model section.

Mobile store for smart phones

Search

Swipe eSpot

Multiple wish lists

Cross channel inventory

Location based services

12 Mobile enhancements © 2012 IBM Corporation

On this slide, you can see screen captures of the mobile web store for smart phones. This store contains some mobile-specific features such as a touch swipe e-Marketing Spot and location-based services. The mobile web store also takes advantage of many existing features from the Madisons desktop store. These include WebSphere Commerce search, multiple wish lists and cross-channel inventory support.

Mobile store for tablets

The screenshot displays the MADISONS mobile store interface for tablets. At the top, a yellow header bar contains navigation icons for 'Products', 'Search', the 'MADISONS' logo, 'Stores', and 'Cart (0)'. Below the header is a large promotional banner for 'Back to School savings' featuring a photo of children and text indicating 'up to 25% off on children's fall fashions'. Underneath the banner are four featured product categories: 'prescription refills' (with a 'sign up now' button), 'coffee makers' (with a 'shop now' button), 'cookware' (with a '20% off' offer and a pot image), and 'Deals of the Week' (with a 'Clearance Sale' sub-header). The 'Deals of the Week' section includes four items: 'Patio Set', 'Rattan Chair', 'Garden Arbor', and 'Snack Table'. At the bottom, there are four blue action buttons: 'Sign In', 'My Account', 'Shopping List', and 'E-Flyer'. A footer bar contains links for 'Compare', 'Help', 'Settings', 'Full Site', and 'Privacy Policy'. Three yellow callout boxes are overlaid on the image: 'Frequently used features' points to the top navigation bar, 'Swipe eSpot' points to the promotional banner, and 'Action buttons' points to the bottom navigation bar.

The tablet web store has a similar layout to the smart phone store but takes advantage of the bigger screen with larger graphics and extra e-Marketing Spots. Frequently used features are grouped in the header and other store actions are provided as buttons in the footer. Dojo widgets are used to create a user experience similar to a native application.

Hybrid application

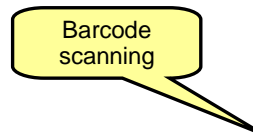
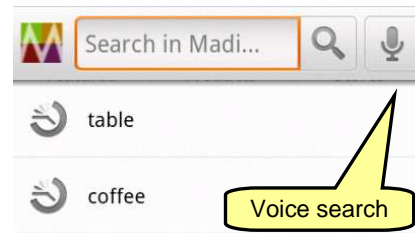
The screenshot shows a mobile application interface for MADISONS. The header area is highlighted with a red box and labeled "Device specific header". The main content area, featuring a "Back to School savings" banner, is labeled "Same page content as web store". A menu area at the bottom right is labeled "Device specific option menu".

The interface includes a search bar, navigation tabs (Featured, Products, Stores), a search input field, and a shopping cart icon. The main content area displays a promotional banner for "Back to School savings" with a "20% off" offer on children's fall fashions. Below the banner are buttons for "Check-in" and "Weekly e-flyer", and two promotional tiles for "cookware 20% off" and "coffee makers shop now". The bottom menu contains icons and labels for "Sign In", "My Account", "Scan", "Shopping List", "Privacy Policy", and "More".

14 Mobile enhancements © 2012 IBM Corporation

Here you see a screen capture of the hybrid application. The header area and menu options are generated by the application. The main store content area is generated by the same JSP files as the smart phone web store. The phone's WebKit browser is used to display the store content. The benefit of the hybrid application over the fully browser-based web store is access to other device capabilities. For example, the hybrid application supports 2D barcode scanning, voice search, and can use the phone's contact list for selecting shipping and billing addresses. Barcode scanning and voice search require additional applications to be installed to support those features. As mentioned previously, voice search is not supported on the iOS hybrid application.

Native application



15

Mobile enhancements

© 2012 IBM Corporation

The Android native application has a slightly different look than the hybrid application and smart phone web store. It provides a truly native experience as the UI is completely generated and controlled by the application. Similar to the hybrid application, it provides device-specific features such as 2D barcode scanning, voice search and contacts list integration.

Packaging

- Pre-requisites
 - Madisons
 - MadisonsEnhancements
- Store archive (SAR) files
 - MadisonsMobile
 - MadisonsMobileEnhancements
 - MadisonsTablet
- Android native files
 - <WC_Install_Dir>\components\store-enhancements\samples\Android
- iOS native files
 - <https://www.ibm.com/services/forms/preLogin.do?source=swg-wsphere-comm>

The mobile web stores are packaged in SAR files that can be added on to the desktop version of Madisons. You should publish a Feature Pack 4 level of Madisons and Madisons enhancements before adding on the mobile SAR files. The MadisonsMobile SAR file contains the original Madisons mobile template. You do not need to publish this unless you want to support smart phones that don't have a WebKit browser. The MadisonsMobileEnhancement SAR file contains the new smart phone web store. It is also required if you plan to use the hybrid smart phone application. The MadisonsTablet SAR file contains the tablet web store and is required for the hybrid tablet application. You can publish one or both of these add-ons depending on what you want to support. The files for Android sample applications can be found in the directory shown on the slide. The iOS sample applications are not included in Feature Pack 4, they are available externally from the link shown on the slide.

References

- Smart phone and tablet starter stores
 - <http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.starterstores.doc/concepts/csmmobile.htm>
- Feature matrix
 - <http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.starterstores.doc/refs/rsmmatrix.htm>
- Mobile web applications
 - <http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.starterstores.doc/concepts/csmmobileweb.htm>
- Mobile applications
 - <http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.starterstores.doc/concepts/csmmobileapp.htm>
- iOS sample code
 - <https://www.ibm.com/services/forms/preLogin.do?source=swg-wsphere-comm>

This slide contains some references for further reading on this topic.

Summary

- Overview
- Starter store summary

This presentation began with an overview of the mobile commerce solution and then examined each of the new mobile starter stores.

Feedback

Your feedback is valuable

You can help improve the quality of IBM Education Assistant content to better meet your needs by providing feedback.

- Did you find this module useful?
- Did it help you solve a problem or answer a question?
- Do you have suggestions for improvements?

Click to send email feedback:

[mailto:iea@us.ibm.com?subject=Feedback about Mobile.ppt](mailto:iea@us.ibm.com?subject=Feedback%20about%20Mobile.ppt)

This module is also available in PDF format at: [../Mobile.pdf](#)

You can help improve the quality of IBM Education Assistant content by providing feedback.



Trademarks, disclaimer, and copyright information

IBM, the IBM logo, ibm.com, and WebSphere are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of other IBM trademarks is available on the web at "[Copyright and trademark information](http://www.ibm.com/legal/copytrade.shtml)" at <http://www.ibm.com/legal/copytrade.shtml>

THE INFORMATION CONTAINED IN THIS PRESENTATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. WHILE EFFORTS WERE MADE TO VERIFY THE COMPLETENESS AND ACCURACY OF THE INFORMATION CONTAINED IN THIS PRESENTATION, IT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. IN ADDITION, THIS INFORMATION IS BASED ON IBM'S CURRENT PRODUCT PLANS AND STRATEGY, WHICH ARE SUBJECT TO CHANGE BY IBM WITHOUT NOTICE. IBM SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES ARISING OUT OF THE USE OF, OR OTHERWISE RELATED TO, THIS PRESENTATION OR ANY OTHER DOCUMENTATION. NOTHING CONTAINED IN THIS PRESENTATION IS INTENDED TO, NOR SHALL HAVE THE EFFECT OF, CREATING ANY WARRANTIES OR REPRESENTATIONS FROM IBM (OR ITS SUPPLIERS OR LICENSORS), OR ALTERING THE TERMS AND CONDITIONS OF ANY AGREEMENT OR LICENSE GOVERNING THE USE OF IBM PRODUCTS OR SOFTWARE.

© Copyright International Business Machines Corporation 2012. All rights reserved.