

Mobile

Agenda

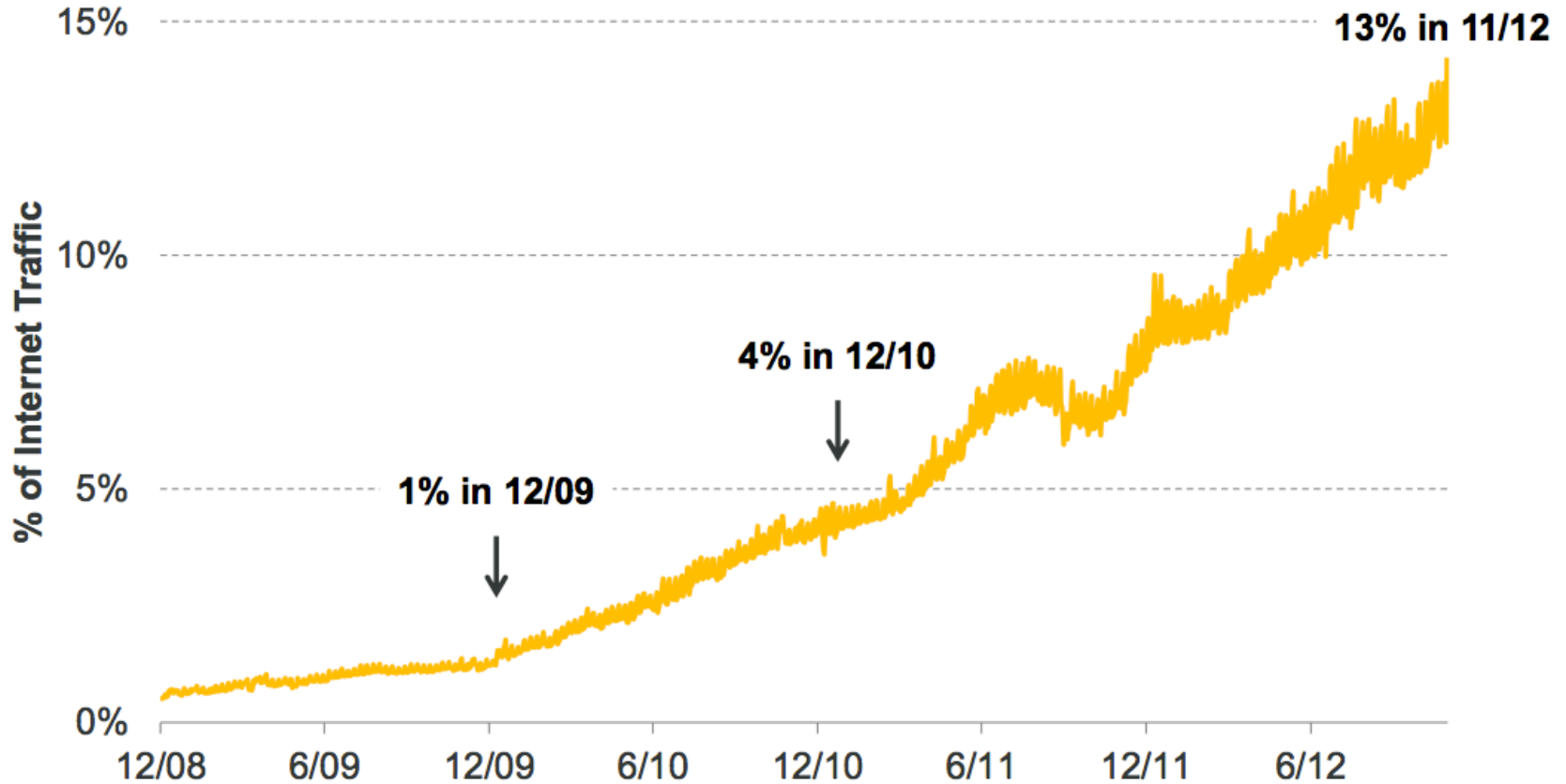
- Why/Motivations
- Mobile Web vs Mobile Apps
- HTML5 + Java EE6
- Apache Cordova
- Aerogear





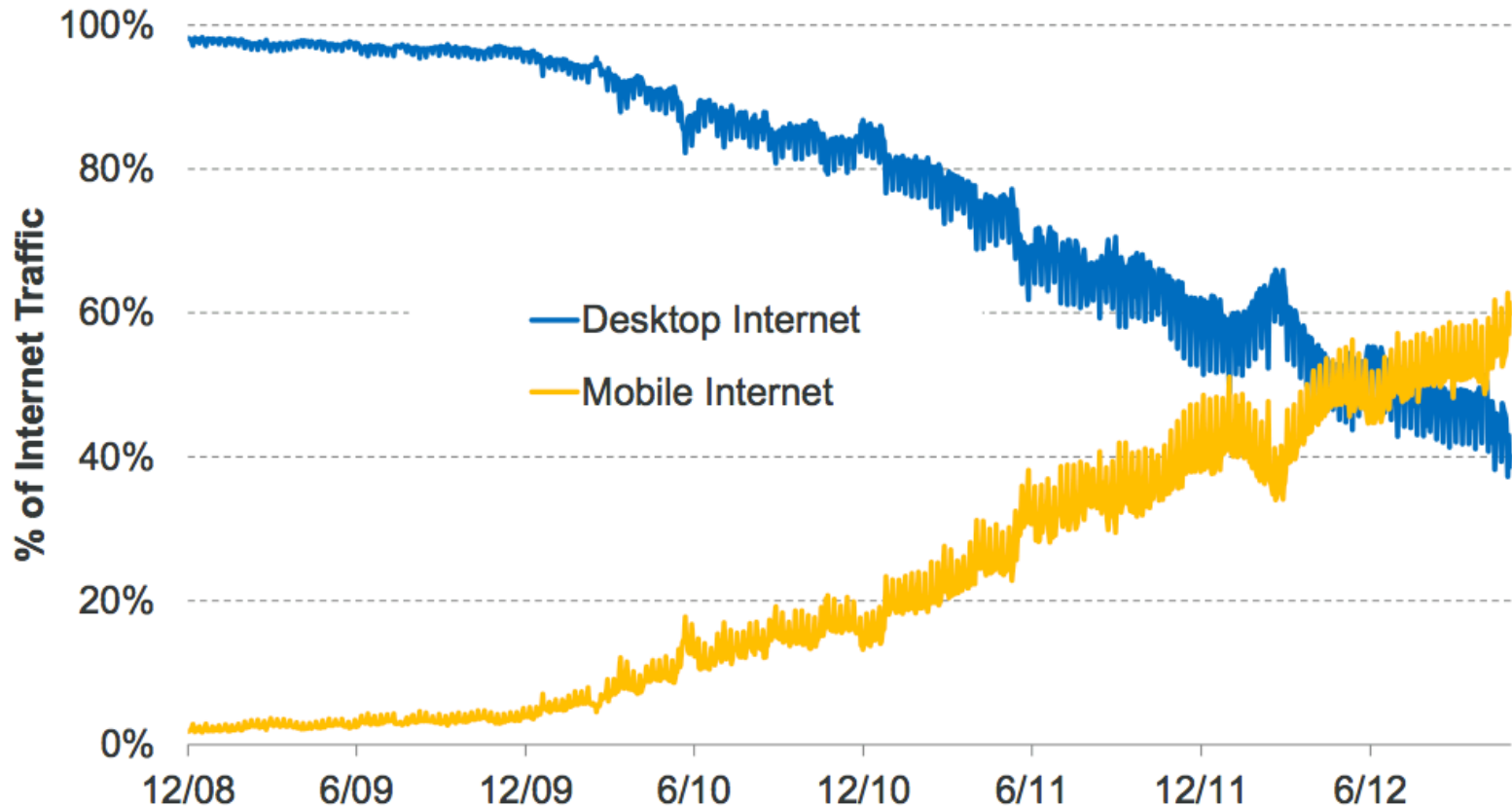
Global Mobile Internet Traffic

Global Mobile Traffic as % of Total Internet Traffic, 12/08 – 11/12



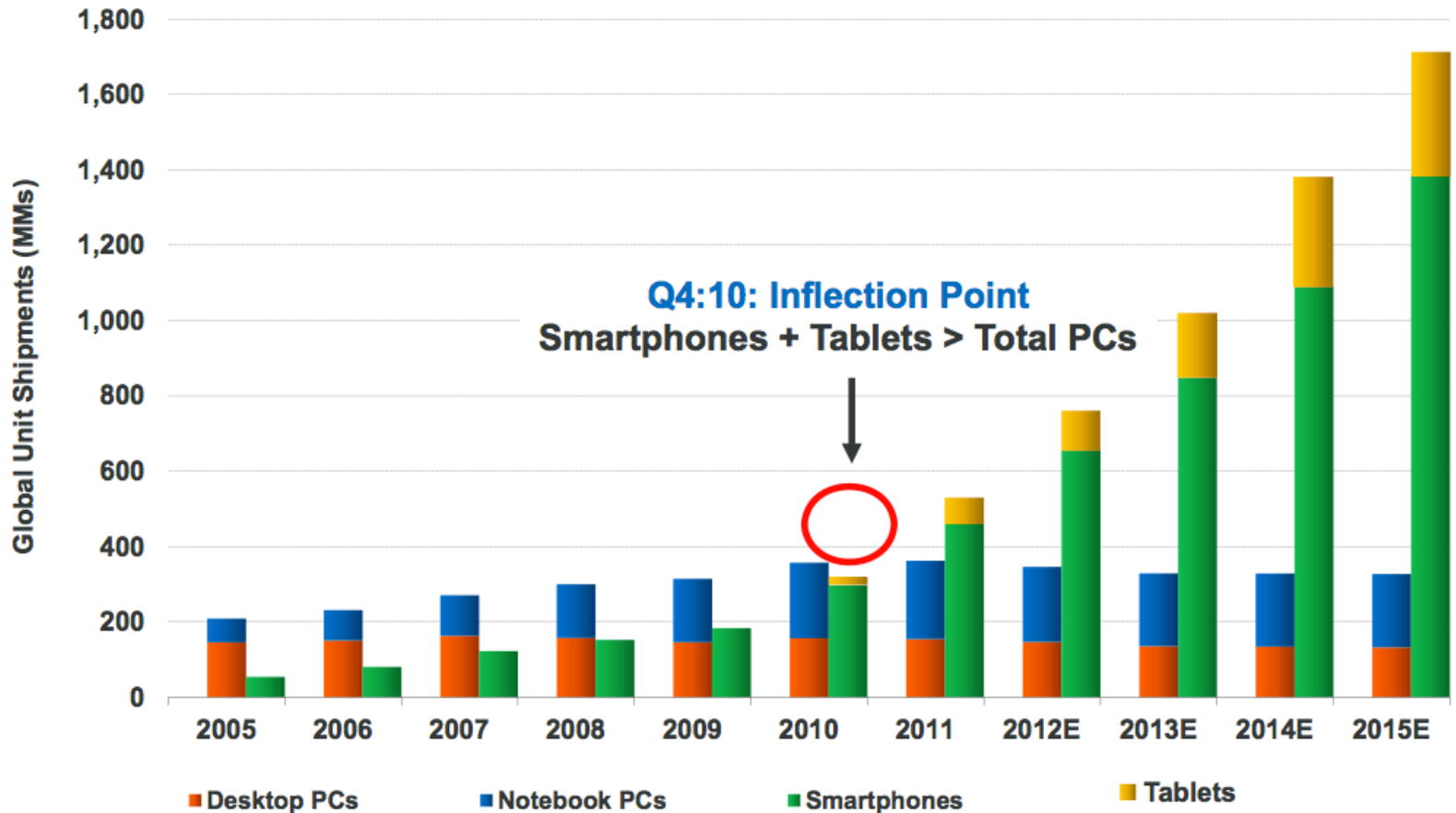
India, Mobile Surpasses Desktop

India Internet Traffic by Type, Desktop vs. Mobile, 12/08 – 11/12



Smart Phones + Tablets Shipments > PCs

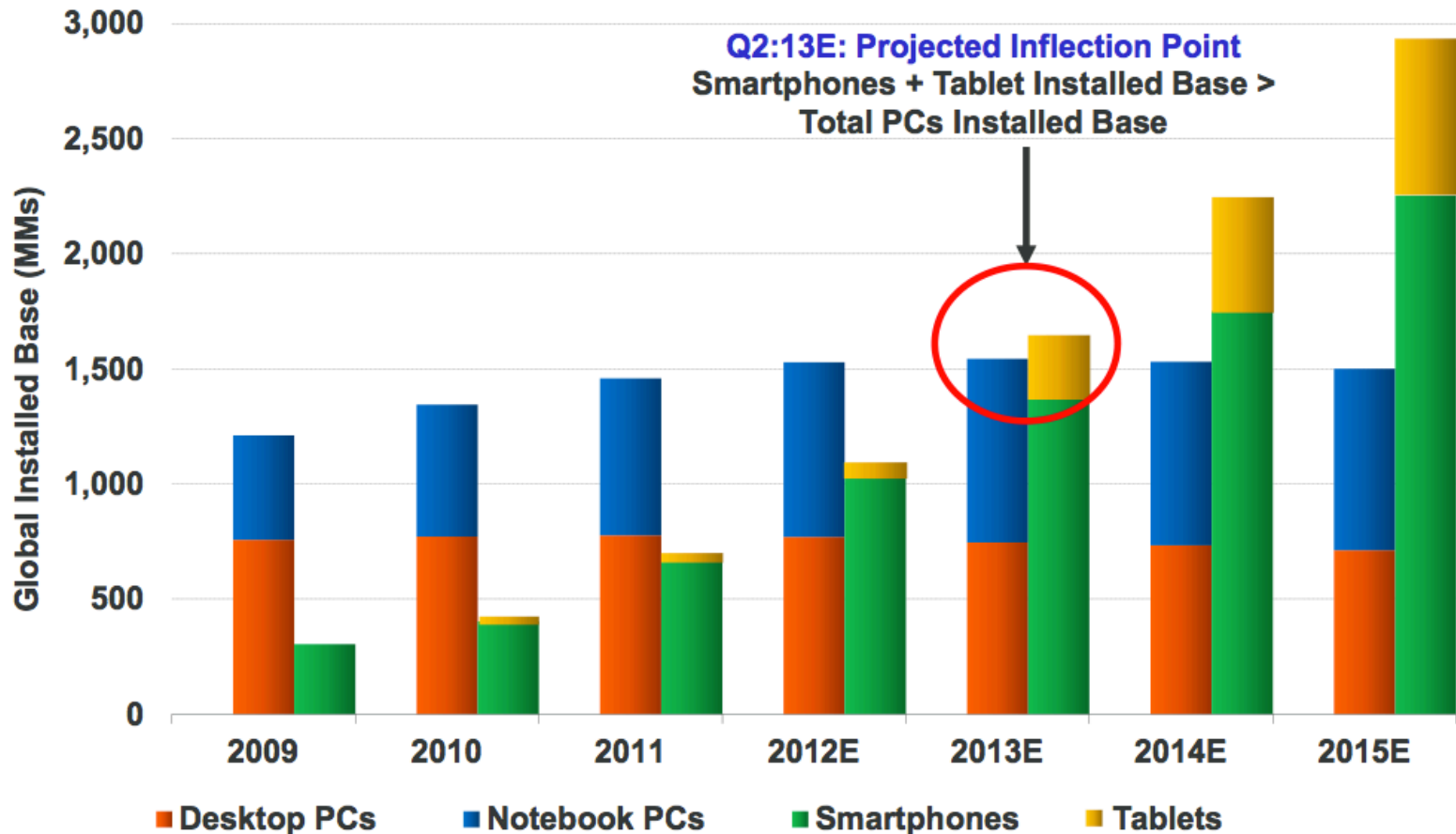
Global Unit Shipments of Desktop PCs + Notebook PCs vs. Smartphones + Tablets, 2005-2015E



Smart Phones + Tablets

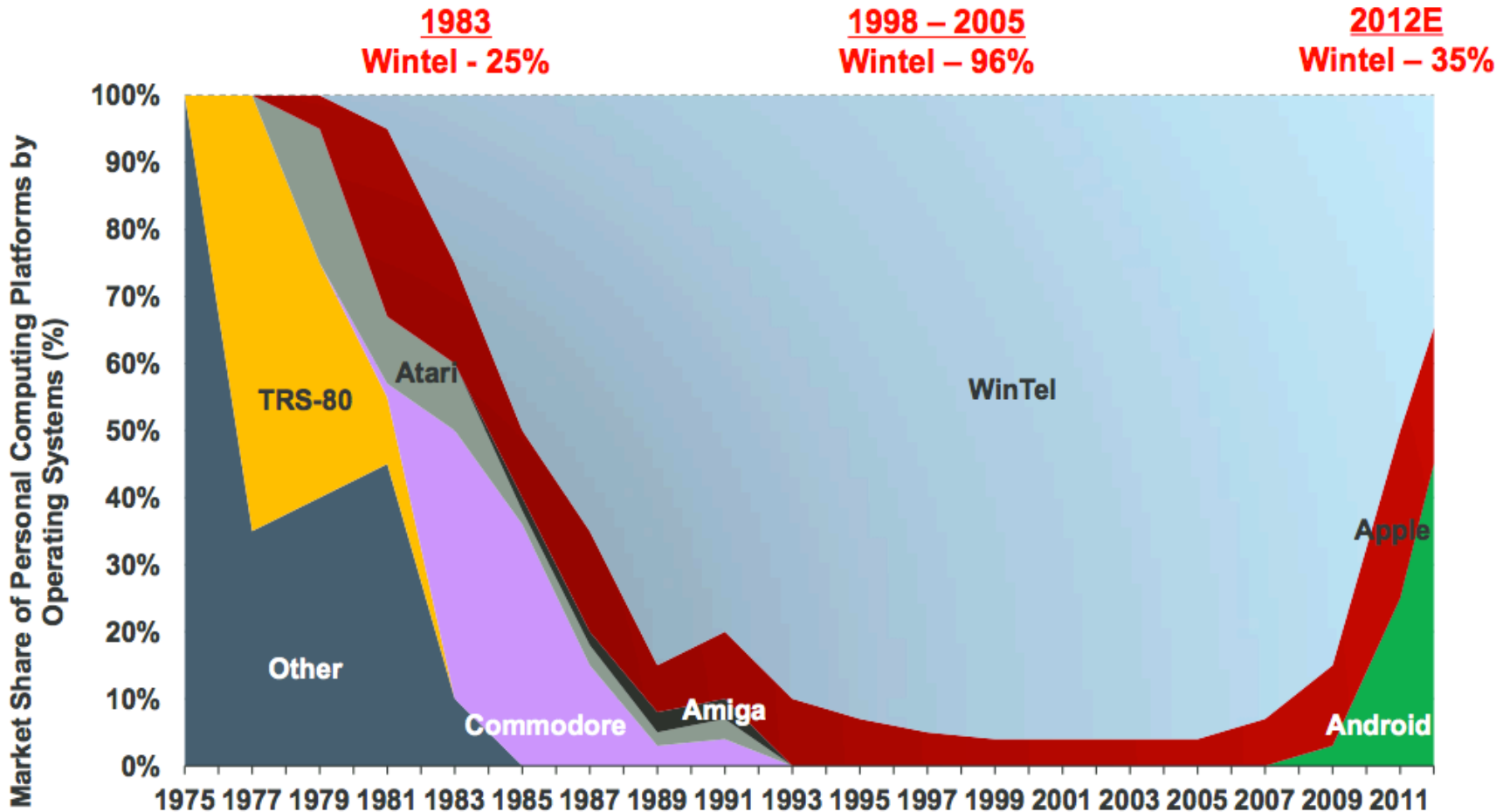
Installed base > PCs in 2013

Global Installed Base of Desktop PCs + Notebook PCs vs. Smartphones + Tablets, 2009-2015E



iOS + Android > Windows

Global Market Share of Personal Computing Platforms by Operating System Shipments, 1975 – 2012E



JBoss Focus for UI - Today



REST

JSF2+RichFaces4

GWT/Errai

JPA/Hibernate

JTA

Messaging

Jobs

Cache

Clustering

Security

Spring

EJB

CDI*

REST-based Architecture

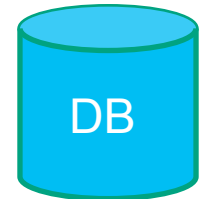


JSON
REST
Websocket

HTML5+CSS3+jQuery/Backbone



RESTEasy
Aerogear Controller



DB



NoSQL


















Cloud Service

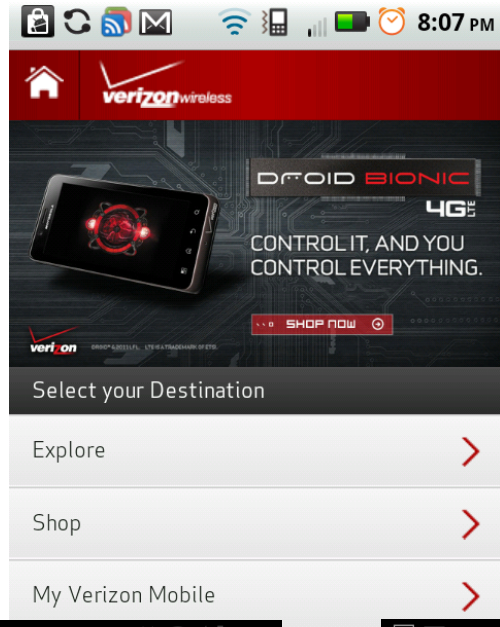
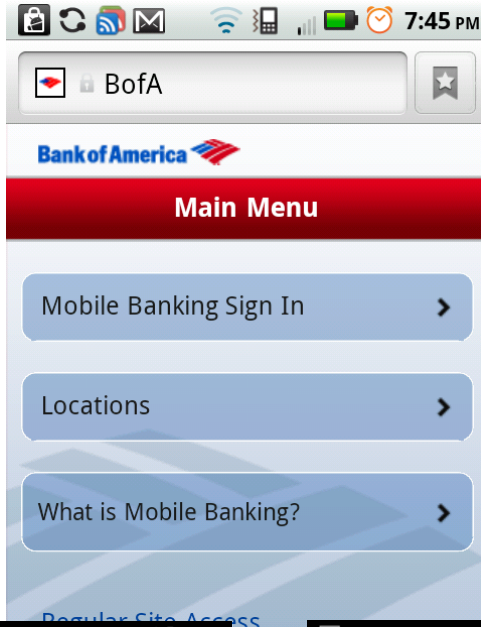
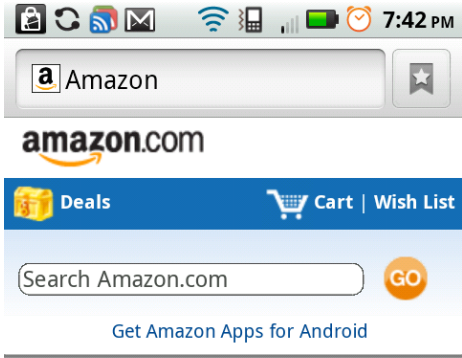
jQuery & JAX-RS

```
$.getJSON("http://whatever.com/rest/members", function(members) {  
    var listOfMembers = $("#listOfItems");  
    listOfMembers.empty();  
    $.each(members, function(index, member) {  
        listOfMembers.append(  
            "<li><a href='#>" + member.name + "</a>");  
    });  
    listOfMembers.listview("refresh");  
});
```

```
@GET  
@Produces(MediaType.APPLICATION_JSON)  
public List<Member> listAllMembers() {  
    return repository.findAllOrderedByName();  
}
```

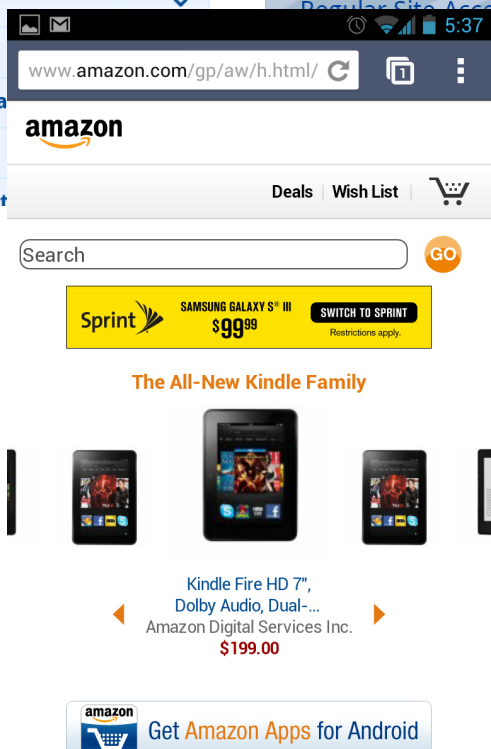
More than Web Architecture

Users & Interfaces	Interface Tier	Business Logic	Data Access Integration	Data Sources
 browser html  mobile  email  workstation swing/.net winforms  pda/handheld J2ME / Compact Framework  spreadsheet  EDI external systems  vendor/supplier distributor/retailer business partner  firewall	Servlets/JSP Struts JSF SpringMVC RIA Frameworks RMI SOAP REST	EJB Session Bean POJO Spring Bean Dynamic Workflow & Rules Components	JPA Hibernate DAO/DTO JDBC JCA or Proprietary Adapters/Connectors SOAP consumers XML Parser XSLT Processor	 rdbms  Xml, EDI, Web Services  Legacy In-house ChUI OS/390 AS/400 Vax  Legacy COTS SAP Peoplesoft  firewall  vendor/supplier distributor/retailer business partner

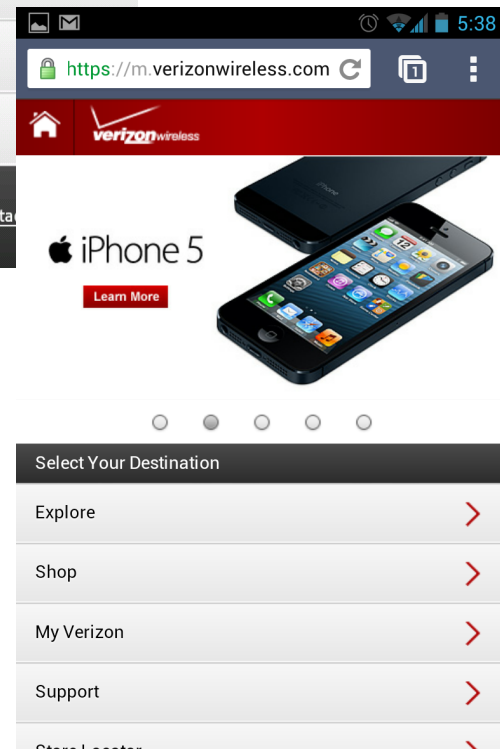
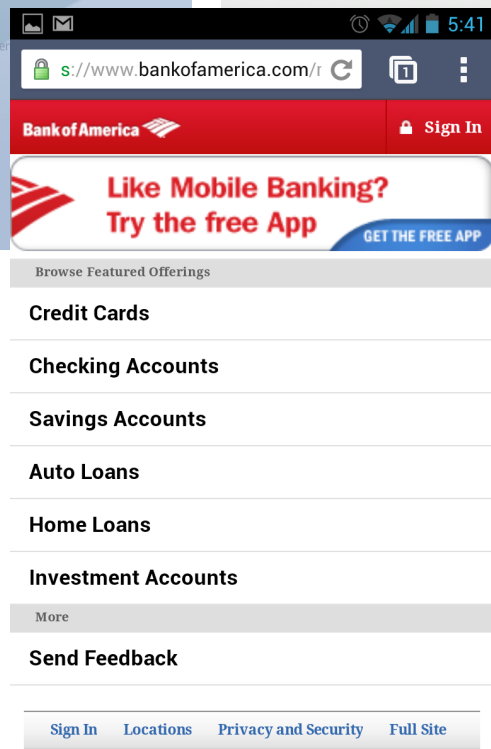


Sept 2011

- Books
- Kindle
- Movies, Music & Games
- Electronics
- See All Departments



March 2013



8:13 PM

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View/Cancel A Reservation

Account Login

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Trip Planner

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Shop iPod
Shop iPhone
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Popular Accessories

Don't miss the first deadline of the school year. September 20 is the last day to buy a new Mac for college and get a free 1000 Back to School Card to spend on apps, music, games, and more!

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Featured Mac apps.

8:12 PM

AT&T

myAT&T Online Account Management

Security warning

There are problems with the security certificate for this site.

This certificate is not from a trusted authority.

Continue View certificate Cancel

Sept 2011

5:35

mobile.usablenet.com/mt/www.br

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London hotels |

Find a Hotel

Check Reservations

Destination
City, Address, Attraction, Airport

Find a hotel near me

Check In: 03/27/2013
Check Out: 03/28/2013

Room(s): 1
Adult(s): 1
Child(ren): 0

Special Rates

Special Rates

FIND A HOTEL

March 2013

5:37

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iPhone 5

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5:39

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- U-verse
- Home Phone/Internet
- Manage multiple accounts
- Don't have a line? Register today!

Wireless account login

If you currently log in with a Wireless Number, enter below. If you have linked your wireless account to an AT&T Access ID, enter this user ID below.

User ID: Password:

Save User ID Forget Your User ID or Password?

Log In

Need help using myAT&T? Play videos below:

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- Forgot Your User ID?
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Mobile Web vs Apps



Device Browser

Pros:
Instant Deployment
Reuse of Web Talents

Cons:
Limited Device Features
Limited Offline Capabilities
No Push
No App Stores



Apache Cordova

Pros:
Cross-Platform
Native Device Features
Push
App Stores

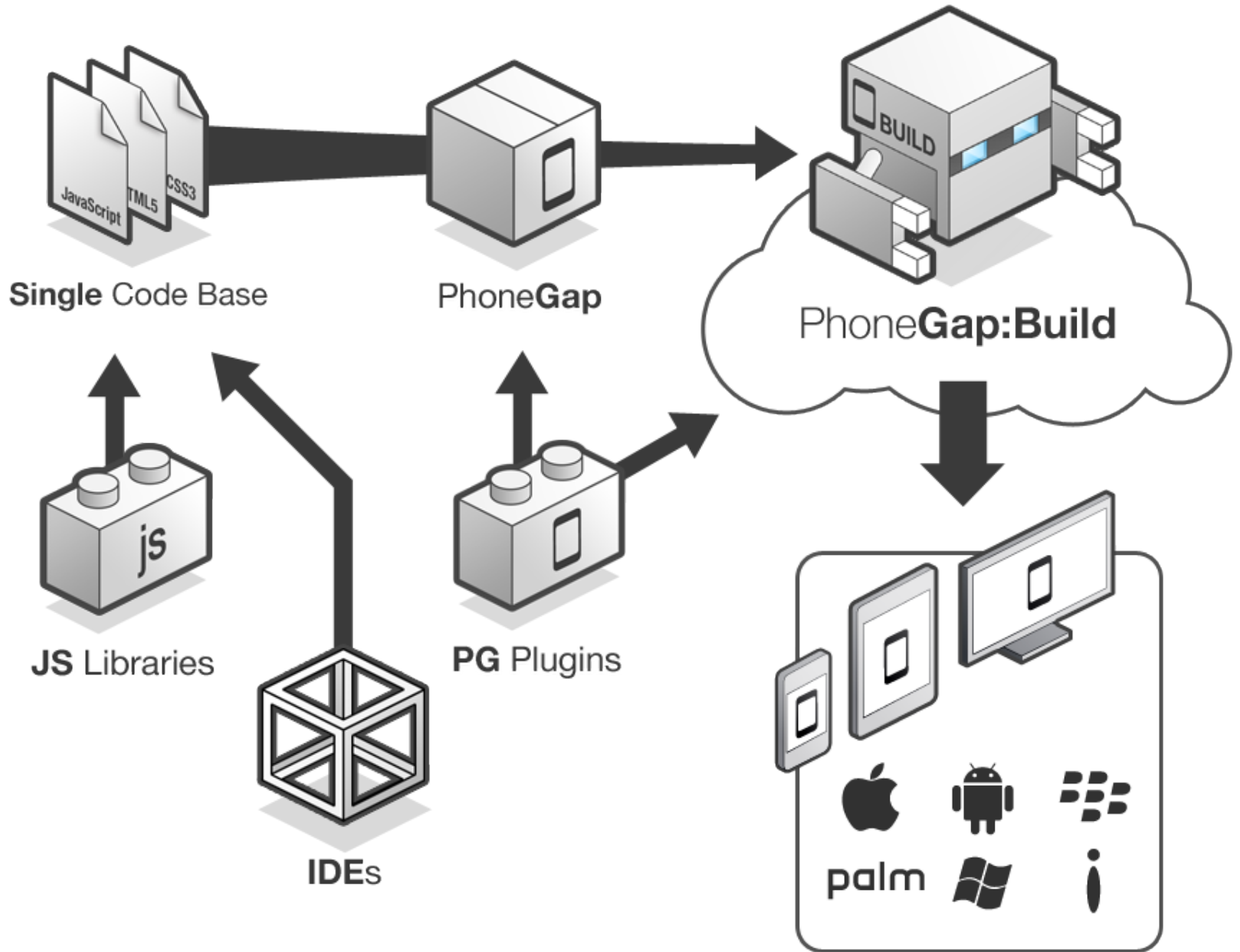
Cons:
HTML/JS-based UI
Non-native look & feel



Objective-C
Android Java

Pros:
Limitless capability

Cons:
Unique Codebases
Unique skillsets



Device APIs (via Cordova.js)

- Accelerometer
- Camera
- Capture
- Compass
- Connection
- Contacts
- Device
- Events
- File
- Geolocation
- Media
- Notification
- Storage

What has JBoss done so far?

- WFK 2.1 Mobile Testing (iOS 5 & 6 and Android 2.3 & 4.x)
- WFK 2.1 Apache Cordova Testing
- RichFaces 4 ready for mobile (WFK 2.0)
- jQuery & jQuery Mobile Quickstarts/TicketMonster with Cordova (WFK 2.1)
- Cordova Kitchensink (WFK 2.2)
- HTML5 Archetype in JBoss Central (JBDS 5+)
- Mobile BrowserSim in JBoss Developer Studio 5
- 2011 and 2012 JBoss World Keynote Demos

Demos

What's Next

Aero   Gear



Bringing Mobile and Enterprise Together!

Libraries to **simplify** and **unify** mobile development across different platforms.



JavaScript

iOS

Objective-C



Android



Hybrid

JBOSS® ENTERPRISE APPLICATION PLATFORM & JBoss Application Server 7


New and Existing Services

Mobile Web 

Hybrid

Desktop

JavaScript / CSS

 Offline Storage

 Performance

 Connectivity

 Device Access

 Security

 AJAX

WebSocket





RESTful Endpoints

CDI Managed Services 

Messaging

RESTful Endpoints

CDI Managed Services 

Messaging

RESTful Endpoints

CDI Managed Services 

Messaging

RESTful Endpoints

CDI Managed Services

Public API

Data



OPENSIFT

Aerogear

- Polyglot Client
(JS, Objective-C, Android Java)
- Secured REST interactions
including OTP
- Paging
- 2.0: Data sync (offline)
- Notifications/Native Push Services
- More Info: www.aerogear.org

Vanilla REST vs Aerogear (Save)

```
$.ajaxPrefilter( function( options, originalOptions, jqXHR ) {  
  if (options.data){  
    options.data=JSON.stringify(options.data);  
  }  
});  
$.ajax({  
  type: "PUT",  
  url: myURL,  
  contentType: "application/json",  
  data: {"data": "mydata"}  
});
```

← JSON-serialized PUT

Aerogear API 1.0:

- Security & Paging

Aerogear API 2.0:

- Offline Sync



```
var myPipeline = AeroGear.Pipeline();  
  
myPipeline.add(  
  {  
    name: "myprojects",  
    settings: {  
      baseUrl: "https://todo-aerogear.rhcloud.com/todo-server/",  
      endPoint: "projects"  
    }  
  }  
);  
  
myPipeline.pipes['myprojects'].save(mydata)
```

Demos

AeroGear

The logo for AeroGear features the word "Aero" in a blue sans-serif font, followed by a blue gear icon. The word "Gear" is in an orange sans-serif font, with a large orange gear icon integrated into the letter "G".