Mobile Application Development Options

Joel Poythress
AT&T AMAP – Advanced Mobile Applications Practice
What is your Strategy?

Brand

Mobile

Service
Industry View from IDC and Gartner

Gartner Magic Quadrant Leaders

- Aspects of Decision Making
- Gartner MEAP Magic Quadrant 2011
- Industry View from IDC and Gartner

<table>
<thead>
<tr>
<th>Challengers</th>
<th>Leaders</th>
</tr>
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<tbody>
<tr>
<td>Apple</td>
<td>Syclo</td>
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<tr>
<td>Google</td>
<td>SAP</td>
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<tr>
<td>Usablenet</td>
<td>Antenna</td>
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<tr>
<td>Microsoft</td>
<td>IBM</td>
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<tr>
<td>Andanza Technologies</td>
<td>Research In Motion</td>
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<tr>
<td>salesforce.com</td>
<td>Spring Wireless</td>
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<tr>
<td>Data Systems International (DSI)</td>
<td>FileMaker</td>
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<tr>
<td>jQuery Mobile</td>
<td>Appcelerator</td>
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<tr>
<td>Sencha</td>
<td>Kony</td>
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<tr>
<td>Dojo</td>
<td>Verivo Software</td>
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<tr>
<td>niche players</td>
<td>visionaries</td>
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- Completeness of Vision
- As of April 2012

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Our Strategy

To flexibly deliver integrated content, applications and services...

...to any device, anywhere, anytime.
AT&T Advanced Mobile Applications Practice

ANY CARRIER, ANY DEVICE, GLOBALLY

PROFESSIONAL SERVICES  APPLICATIONS

FULLY MANAGED  SINGLE BILLING

SINGLE POINT OF CARE

• Native & Platform development capability
• Omni-Channel: native, hybrid, web, sms, etc.
• Full lifecycle services
• Cloud/Managed services
# AMAP Delivers End-to-End Application Solutions

## Strategy & Vision
- Enterprise Mobile Strategy
- Application Ideation
- Mobile Marketing
- Governance & MCOE
- Business Transformation

## Solution Design & Architecture
- Solution Architecture
- Platform Consultation
- Lifecycle Planning

## Solution Development & Integration
- Great Plains
- Web Services
- Oracle
- SAP
- Legacy Systems
- SQL

## Solution Deployment
- Staging
- Loading
- Provisioning
- Kitting
- Testing

## Help Desk Support
- Tier 1, 2 and 3 support
- Application Support
- Device Support
  - Spares Management
  - Advance Exchange
  - Warranty Management

## Managed Solutions
- Hosted solutions
- SaaS
Choose an App Development Model

The decision impacts Total Cost of Ownership through the entire application lifecycle, and each model comes with its own set of challenges and risks.

<table>
<thead>
<tr>
<th>Smart Client</th>
<th>Rich Internet Applications</th>
<th>Mobile Web</th>
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<tbody>
<tr>
<td>• Low-cost tools</td>
<td>• Tools from desktop Web application development</td>
<td>• HTML5 and JavaScript</td>
</tr>
<tr>
<td>• Unique device capabilities</td>
<td>• MS Silverlight</td>
<td>• Supported by mobile browsers that support WebKit</td>
</tr>
<tr>
<td>• Ability to store &amp; forward data</td>
<td>• Adobe Flash (ActionScript, Flex)</td>
<td>• Leverage Web development resource skills</td>
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<tr>
<td>• Specialized development skills by mobile OS</td>
<td>• Sencha Touch</td>
<td>• Leverage MEAP</td>
</tr>
<tr>
<td>• Leverage MEAP</td>
<td>• Container-based (e.g., Adobe Flash Player required)</td>
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</table>
HTML5 vs. Native Application

Reach

- Ubiquity
- Easy to use, minimal training
- Time to develop & deploy
- Extend simple intranet apps

Rich

- Support offline mode
- Enforce local business logic
- Complex logic & integration
- Leverage device capabilities
Mobile Web

- This is the lowest common denominator to mobilizing backend’s across multiple end-points
- User experience is generally compromised due to browser limitations
- Has emerged in recent times as a viable option for non-smartphone devices
- Satisfies stringent security requirements since SSL is commonly used across desktops and has been in use for several years.
HTML5

• Most promising framework for leveraging web technologies.
• Unfortunately, it’s greatest strength in terms of diversity of frameworks has also led to fragmentation.
• Technology has not evolved and applications have performance drawbacks.
• Can only be used as a viable option if the application can invest in a single framework and if the technology involves in the next year.
Platform

• Encompasses native, mobile web and HTML5.
• Abstracts the development from specific SDK’s and frameworks.
• Applications can be deployed rapidly and changes can be pushed dynamically without having to update the platform appstore.
• Provides administrators with full management support for applications and also low level device management features.
• May not be the best option if there is only one application or a single device platform.
Make a Choice Between Native-Only or MEAP

Native Hybrid Client Development

+ Optimized to device/OS
+ Store & forward capable
+ On-device features
+ Low cost tools

- Increased effort to support additional device types/OS
- Provisioning & updates
- Rapid obsolescence

Platform Solution

+ Multiple devices
+ Configurable/reusable components (interface & data connectors)

+ Visual dev tools
+ Provisioning & updates

- Platform/tool investment
Solution Model Designs

Basic backend infrastructure components for the State of Michigan remain the same regardless of mobile application development choice.

Hybrid Approach

Platform Approach

Hybrid Approach

Platform Approach
AT&T MEAP

What is AT&T MEAP?

Comprehensive suite of products and services that enable enterprises to design, build, deploy and manage dynamic mobile business to business (B2B)/business to enterprise (B2E) and business to consumer (B2C) applications

- Simple to complex solutions, from small to enterprise grade customers, custom to niche offers
- Efficiently “mobilizes” back-end applications to run on the operating systems of a variety of devices
- Delivers integrated content, applications and services to nearly any device, anywhere, anytime, for both employees and consumers.
- Life Cycle Management – from requirement gathering to management, deployment and support.
AT&T MEAP

Why AT&T MEAP?

- Increased agility and real-time, over-the-air access to critical applications
- Adaptable to business needs and IT requirements
- Extensive tools for managing, monitoring, and troubleshooting from end-to-end (backed by 24/7 enterprise-grade support)
- Potential return on investment (ROI) and cost reductions
- Better information flow to improve worker utilization.
- Predictive security network, device, and application levels. End-to-end tested and certified
- Single source, single contract and bill from AT&T
- Native and Platform development capability
AT&T Mobile Enterprise Applications Platform

A Two Pronged Engagement

Government to Government (G2G) – Extending Business Applications to Employees and Partners Can Help You:

• Leverage existing customer resource management (CRM) investments with application enhancement
• Potentially increase employee productivity
• Enhance operational business intelligence with accurate and reliable data capture
• Allow real-time collaboration
• Improve business process timing
• Control costs
• Accelerate responsiveness

Government to Citizens (G2C) – Leveraging Mobile Applications for Your Customers and Consumers Can Help You:

• Provide citizens with instantaneous access
• Improve citizen experience
• Gain citizen insight, demographics, and preferences
• Proactively reach citizens in a new channel of engagement
• Enhance customer service
AT&T MEAP

The Mobile Applications Challenge – What Now?

Target Platforms

Security

Governmental Goals

Target Devices

Resources