



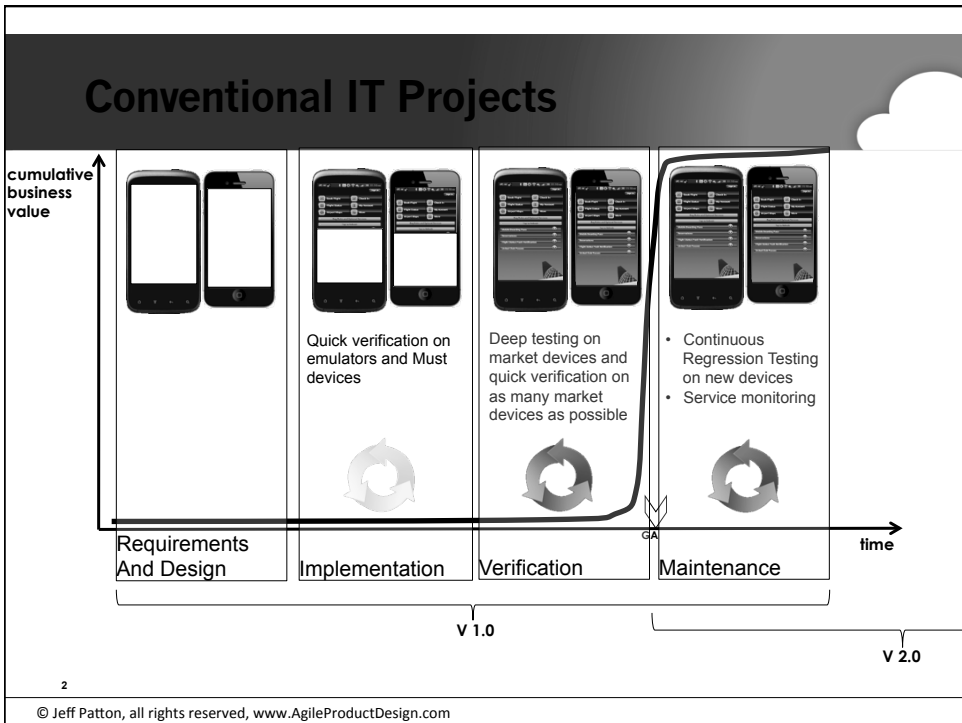
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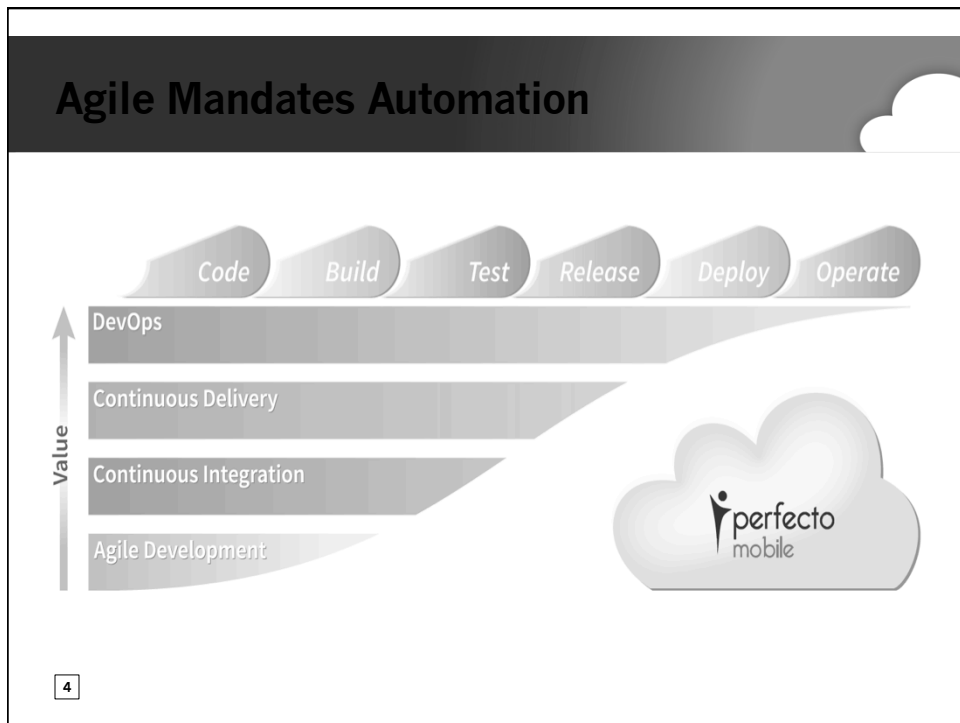
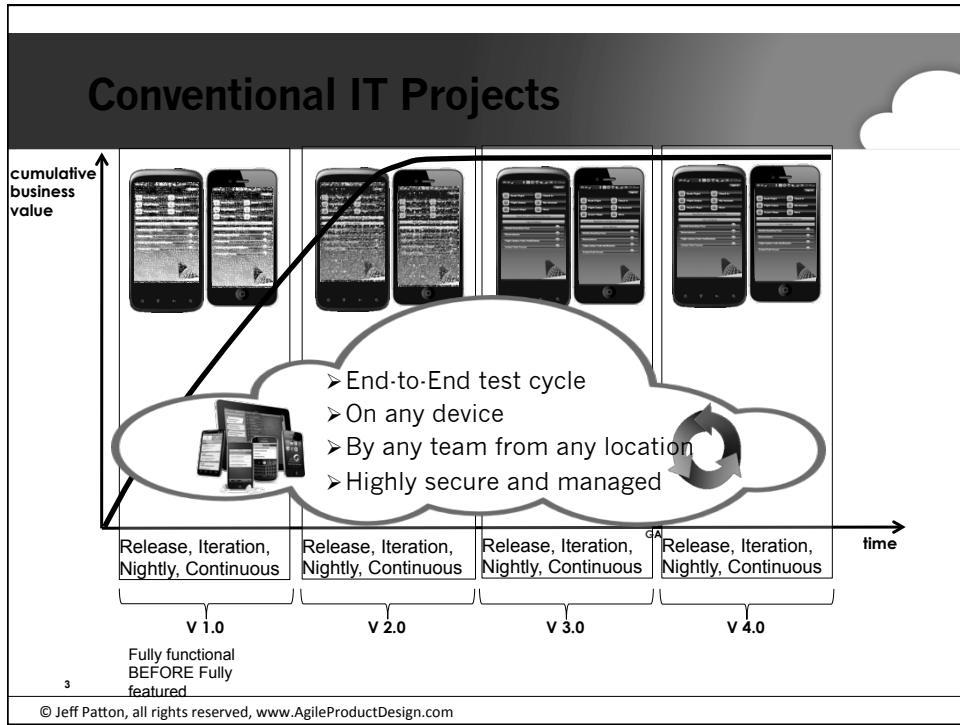
October 25, 2013

# Perfecto Mobile


***How to Build an Enterprise Grade Mobile Testing Strategy***

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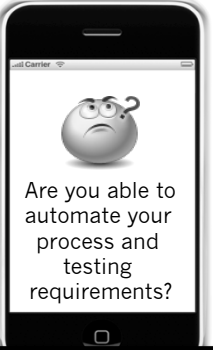
## Automation Requirements



**Team Friendly**  
*Cloud (Public/Private), HW  
Dependency (Local)*




**App Style**  
*Multi - Native, Hybrid,  
Web based*




Are you able to automate your process and testing requirements?

**Automation is a key for efficient testing across the SDLC**




**Use Cases**  
*Integration to QC, Script  
support, Emulator support,  
DOM/OCR Object  
Recognition (Hybrid)*




**Devices**  
*Cross Platform support,  
Device variations*

## Cross Platform Differences



**Menu Panel**


**Text Colors and Images**




**Button Images**

**Labels**

**Application Name Position**



ANDROID  
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iOS

# How Is The Mobile Space Different?

## Mobile App Testing Requirements

### Functional

- Validation of Functionality
- Smoke / Regressions Testing
- Offline access testing
- Negative Testing

### Non Functional

- Network Strength / Outage / Recovery
- Different NW Types
- Peripheral Testing

### Interoperability (IOP)

- Voice / SMS interrupts
- Notifications
- Battery /Cable Removal

### Memory Leak

- Memory Usage
- Memory Leaks
- Garbage Collection

### Performance Testing

- CPU Usage testing
- Network Usage
- Page Render time or activity Render time

### Usability Testing

- User Experience
- Competitive Analysis
- Expert Review

### Installation Testing

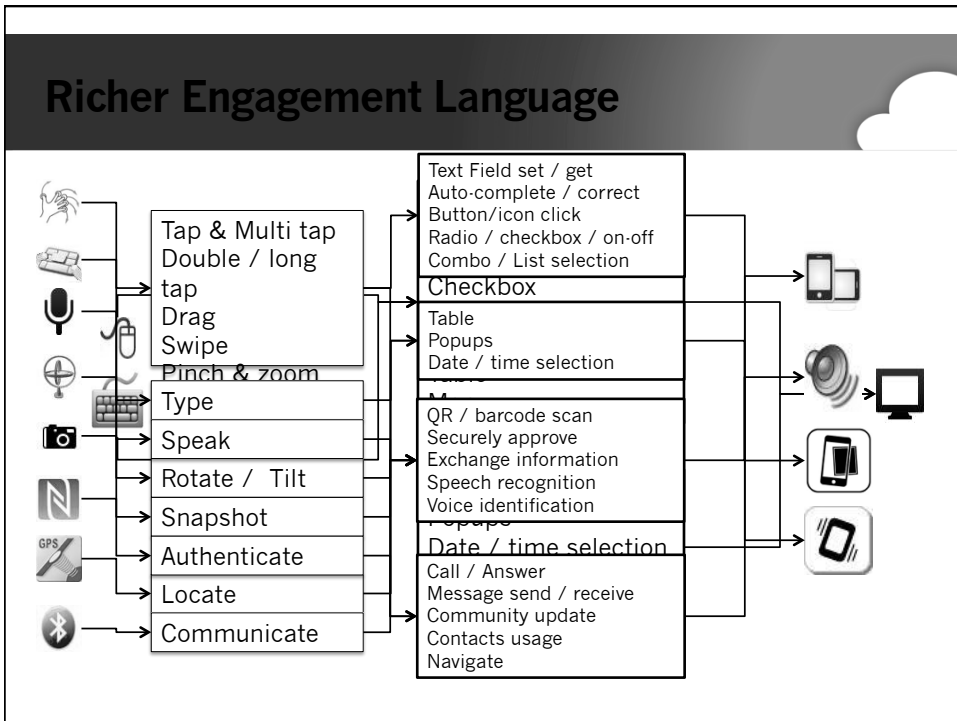
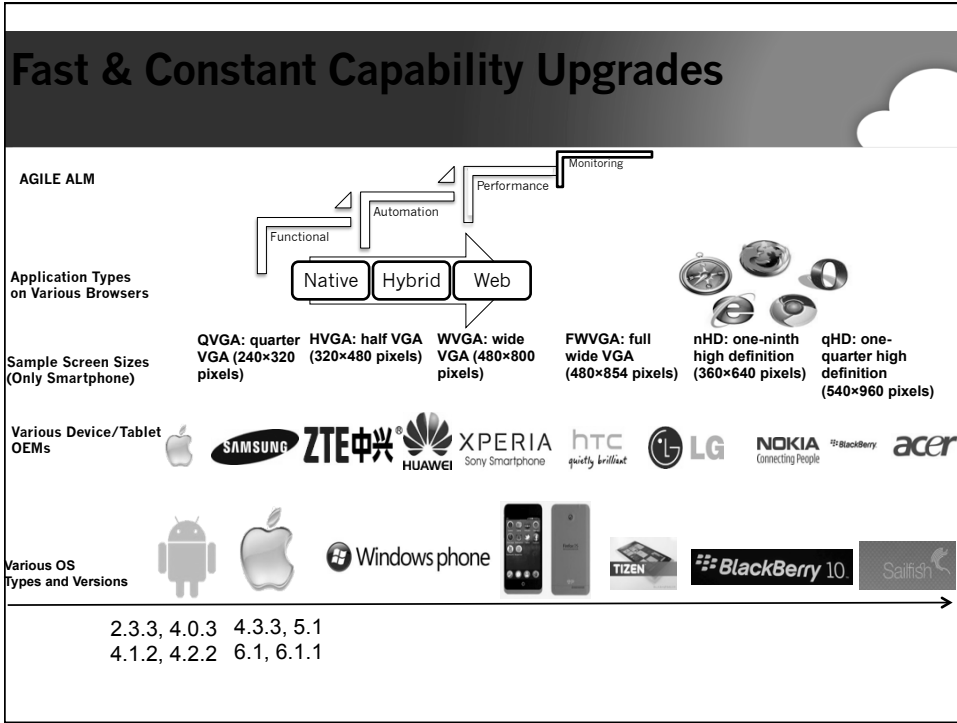
- New App Install
- Uninstall and Reinstall
- Upgrade testing

### Security Testing

- OWASP Vulnerabilities
- Dynamic Testing
- Static Code Analysis
- Data Encryption

### Language Testing

- Validation for Locales
- Images and Text
- Currencies, time zones etc.
- Context



## Near Insatiable Appetite



- 📱 Do more
- 📱 Expect more
- 📱 Express more

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## Building an Enterprise Grade Mobile Testing Strategy

## Expect Rapid Transition Through the Mobile Maturity Stages

**Start**  
What fits my workflow?

**Grow**  
Coverage, Reliability & Governance

**Transform**  
Predictability

Gartner

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## Device Strategy

**Devices on/coming to Market**

**Target User**

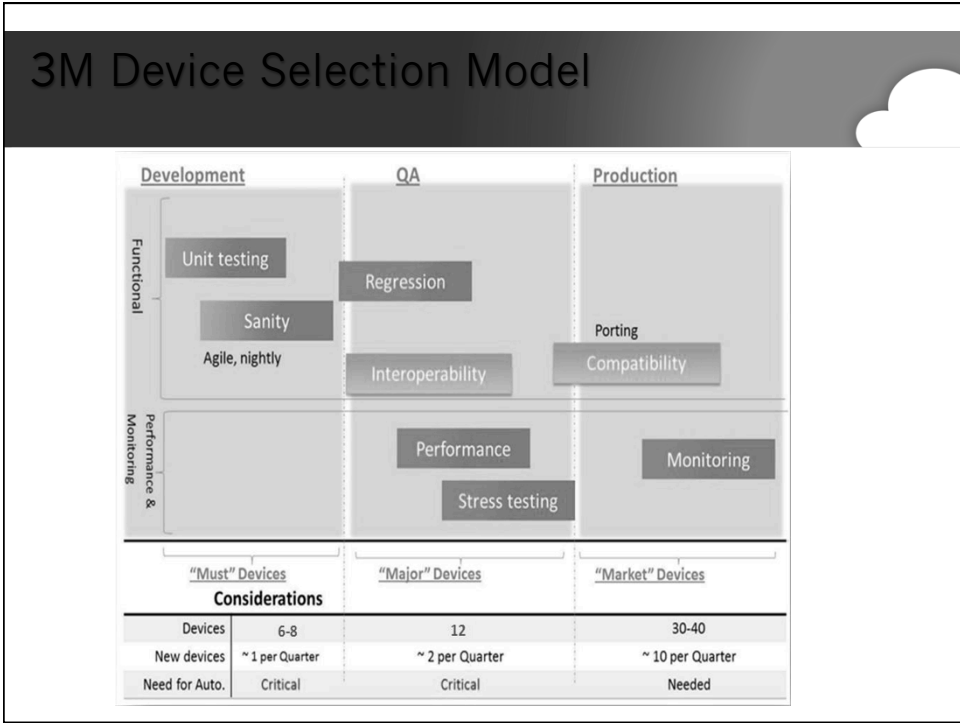
**Device Strategy**

**Usage Statistics**

**Form Factors**

**OS Versions**

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## The Importance of Mobile Test Automation In An Enterprise ALM

### Suggested Tips

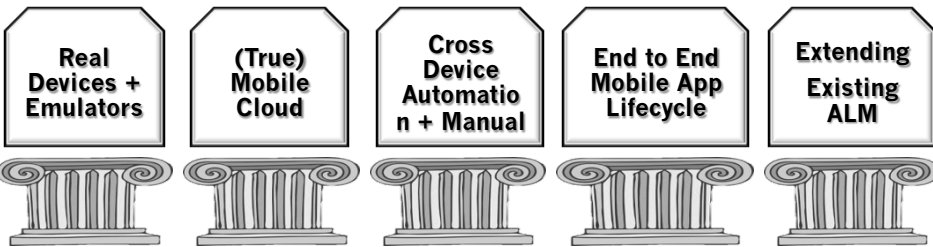
- ✓ Install, Uninstall, Upgrades (With and W/O SD Card)
- ✓ Test for incoming events while your app is running
- ✓ Check for the clarity of your app error messages
- ✓ Check for Android and iOS UI Guidelines compliance
- ✓ Test network loss & transition, low battery and other device constraints
- ✓ Localization – Test with different languages (for relevant apps)
- ✓ Include HW during your app run (GPS, Camera)
- ✓ Think with the end in mind – develop automation anchors for repetitive executions (Back to App Home i.e.)

## What An Enterprise-Grade Mobile Testing Strategy Consists Of

Maximize Your ROI – Adopt The 5 Pillars



- 1. Inability to meet quality** across all platforms
- 2. Inability to support continuous delivery**
- 3. Inability to scale**
- 4. Device chaos**
- 5. Fail to leverage existing ALM/ tool investments**



## Building Mobile Application Quality

Business challenges	Solutions	Business value
<ul style="list-style-type: none"> <li>• experience</li> <li>• Lowering delivery cost</li> <li>• Accelerated delivery models</li> <li>• Market dynamics</li> </ul>	<ul style="list-style-type: none"> <li>• managed device clouds</li> <li>• Use real devices under real conditions</li> <li>• Enable unattended continuous testing</li> <li>• Extend ALM investment</li> </ul>	<ul style="list-style-type: none"> <li>• Raise quality</li> <li>• Faster delivery</li> <li>• Support current processes</li> <li>• Optimize performance</li> <li>• Shrink MTTR</li> </ul>

*Aligning strategy, organization, processes & tools*

## True Case Study – Top U.S Bank

**BEFORE**

duplicate device labs  
automation with manual oversight  
16-20 day regression cycle

manual testing

**AFTER**

cloud based device lab  
continuous unattended testing

automation

**RESULTS**

90% cycle time reduction  
\$40K savings per test cycle

**Read More: [Perfecto Case Study](#)**

## Friendly Tips

Choose the right devices

Define your test coverage goals

Use both Visual and Real Objects

Test your mobile app (native, web) across different networks

Performance test high value transactions

Don't forget interoperability (IOP) testing

Monitor the end users are experience

Plan and measure reuse

## How We Do it Differently

✦ **True** Integrated Quality platform: – The Mobile Cloud

- ✓ Distributed      ✓ Secure      ✓ Scalable
- ✓ Sharable      ✓ Administration      ✓ Assured & managed

✦ **Best** in class automation (patented ScriptOnce®)

✦ **Broad** use case support

✦ **Choice** Local, private and public deployment options

✦ **A market leaders ecosystem** designed for your workflow

✦ **Field Proven!** Operating +70K hours of monthly usage

✦ **Complete** end-to-end solution



Questions

# Q & A & A

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<http://www.perfectomobile.com>



# Thank You



Manual >      Monitoring >

Automation >      Performance >