

BenchmarkQA helps project teams deliver higher quality software through:



Quality Assurance Consulting



Contract & Permanent Staffing



QA/Test Training & Seminars



Local Outsourcing Test Lab



# Welcome!

- By the end of 2014, over 185 billion applications will have been downloaded from mobile app stores, since the launch of the first one in July 2008.
  - Source: Gartner, Egham, UK, January 26, 2011
- In April 2010, Morgan Stanley estimated that the number of mobile users would surpass desktop users by the beginning of 2014. This “tipping point” will likely happen even sooner than estimated.
  - Source: Mary Meeker, Morgan Stanley, April 2010



## Discussion Topics

- #1 - Unique Considerations for Mobile Technology
- #2 - Relevant Subset of Expected Users
- #3 - Simulators/Emulators vs. Real Devices
- #4 – Outsourced Mobile Testing Specialists
- #5 – Checking Website’s Mobile Effectiveness



# #1 - Unique Considerations for Mobile

- Application battery life usage
- Data transfer usage
- Application function with limited or no network connectivity
- Application performance with limited processor capacities
- Virtual keyboards and application usability, etc.



## #2 - Relevant Subset of Expected Users

- More than 350 different Android-based devices!
- Device Anywhere - over 2,000 unique mobile device models !
  1. Choose Your Target Platform First
  2. Use Simulators and Emulators
  3. Buy a Representative Sample of Devices
  4. Check for Availability of Affordable Testing Units (Loaners)
  5. Design for Expandability (build in detailed diagnostics)
  6. Use Online Mobile Device Petting Zoos
  7. Use Crowdsourcing for Beta Testing
    - Source: “Testing Apps for Smartphones and Mobile Devices (Without Buying the Store)” by Daniel Dern, March 23, 2011

## #3 - Simulators/Emulators vs. Real Devices

- Android emulator (<http://developer.android.com/guide/developing/tools/emulator.html>)
- Blackberry emulator (<http://www.blackberry.com/developers/downloads/simulators/>)
- Dot Mobi emulator (<http://mtld.mobi/emulator.php>)
- Firefox Mobile emulator (<http://www.mozilla.com/en-US/mobile/platforms/>)
- iPhone / iPad / iPod Touch emulator (<http://www.puresimstudios.com/ibbdemo/>)
- Klondike WML emulator (<http://www.simtel.net/product/download/id/53647>)
- LG emulator (<http://developer.lgmobile.com/lge.mdn.tnd.RetrieveDocAndTools.dev?objectType=T#1>)
- Microsoft Devices emulator (<http://www.microsoft.com/downloads/details.aspx?FamilyID=dd567053-f231-4a64-a648-fea5e7061303>)
- Motorola emulator (<http://developer.motorola.com/docstools/sdks/archive/c975ADK/>)
- Mozilla Fennec emulator (<http://www.mozilla.org/projects/fennec/1.0a1/releasenotes/>)
- NetFront emulator ([http://www.access-company.com/products/internet\\_appliances/netfrontsdk/](http://www.access-company.com/products/internet_appliances/netfrontsdk/))
- Nokia emulator ([http://www.forum.nokia.com/info/sw.nokia.com/id/db2c69a2-4066-46ff-81c4-caac8872a7c5/NMB40\\_install.zip.html](http://www.forum.nokia.com/info/sw.nokia.com/id/db2c69a2-4066-46ff-81c4-caac8872a7c5/NMB40_install.zip.html))
- Opera Mobile emulator (<http://informatico.altervista.org/netvibes/operamini.php>)
- Palm emulator ([http://developer.palm.com/index.php?option=com\\_content&view=article&id=1744](http://developer.palm.com/index.php?option=com_content&view=article&id=1744))
- Palm Pre / iPhone emulator (<http://www.genuitec.com/mobile/download.html>)
- Samsung Java emulator (<http://innovator.samsungmobile.com/platform.main.do?platformId=3>)
- Samsung Platform emulator (<http://innovator.samsungmobile.com/bbs/lab/labplatform.do>)
- Windows Mobile emulator (<http://msdn.microsoft.com/en-gb/windowsmobile/bb264327.aspx>)



## #4 – Outsourced Mobile Testing Specialists

- BSQUARE Corporation (<http://bsquare.com/>) with testing tools and services.
- DeviceAnywhere (<http://www.deviceanywhere.com/>) which “currently supports more than 2,000 devices on over 28 different carrier networks worldwide, with locations in the U.S., U.K., Canada, France, Germany, Spain and Brazil.”
- Keynote Testing ([http://www.keynote.com/MITE\\_launch.html](http://www.keynote.com/MITE_launch.html), formerly ZandAn, acquired by Keynote), including “a customizable library of over 1,800 devices and 11,000 device profiles.”
- Paca Mobile Center (<http://www.pacamobilecenter.com> ), located in Marseille, France, with over 1,100 handsets.
- Perfecto Mobile (<http://www.perfectomobile.com> ), currently offering over 500 devices.



## #5 – Checking Website’s Mobile Effectiveness

- Multiple tools available for checking a sites “mobile friendliness”



# Thank You!

For additional information on how BenchmarkQA can be of assistance, please contact:

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