

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 <u>(http://developer.android.com/guide/developing/tool</u> <u>s/emulator.html)</u>
- Blackberry emulator <u>(http://www.blackberry.com/developers/downloads/</u> <u>simulators/</u>)
- Dot Mobi emulator (<u>http://mtld.mobi/emulator.php</u>)
- 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 <u>(http://developer.lgmobile.com/lge.mdn.tnd.Retrieve</u> <u>DocAndTools.dev?objectType=T#1</u>)
- Microsoft Devices emulator <u>(http://www.microsoft.com/downloads/details.aspx?</u> <u>FamilyID=dd567053-f231-4a64-a648-fea5e7061303</u>)
- Motorola emulator <u>(http://developer.motorola.com/docstools/sdks/archi</u> <u>ve/c975ADK/</u>)

- Mozilla Fennec emulator (http://www.mozilla.org/projects/fennec/1.0a1/releasenot es/)
- NetFront emulator <u>(http://www.access-</u> <u>company.com/products/internet_appliances/netfrontsdk/)</u>
- Nokia emulator <u>(http://www.forum.nokia.com/info/sw.nokia.com/id/db2c6</u> <u>9a2-4066-46ff-81c4-caac8872a7c5/NMB40_install.zip.html</u>)
- Opera Mobile emulator
 <u>(http://informatico.altervista.org/netvibes/operamini.php)</u>
- Palm emulator <u>(http://developer.palm.com/index.php?option=com_conte</u> <u>nt&view=article&id=1744</u>)
- Palm Pre / iPhone emulator (http://www.genuitec.com/mobile/download.html)
- Samsung Java emulator (http://innovator.samsungmobile.com/platform.main.do?pl atformId=3)
- Samsung Platform emulator (<u>http://innovator.samsungmobile.com/bbs/lab/labplatform</u>.<u>.do</u>)
- Windows Mobile emulator <u>(http://msdn.microsoft.com/en-gb/windowsmobile/bb264327.aspx)</u>



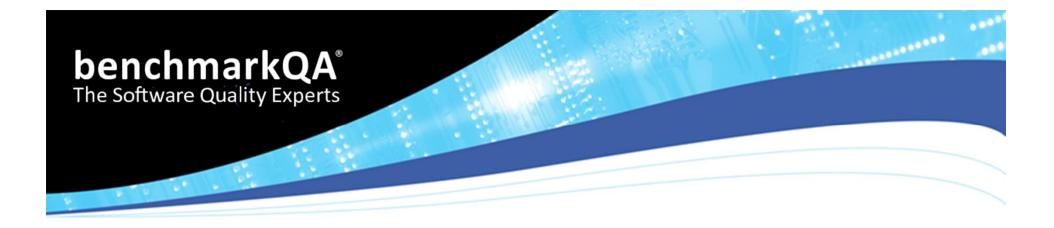
#4 – Outsourced Mobile Testing Specialists

- BSQUARE Corporation (http://bsquare.com/)with testing tools and services.
- DeviceAnywhere (<u>http://www.deviceanywhere.com/</u>) 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 (<u>http://www.keynote.com/MITE_launch.html</u>, formerly ZanDan, acquired by Keynote), including "a customizable library of over 1,800 devices and 11,000 device profiles."
- Paca Mobile Center (<u>http://www.pacamobilecenter.com</u>), located in Marseille, France, with over 1,100 handsets.
- Perfecto Mobile (<u>http://www.perfectomobile.com</u>), 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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