

How Linux, Open Source and Trolltech Are Disrupting the Mobile Phone Market





ABOUT TROLLTECH

- Founded in Oslo, Norway in 1994
- Open source and Linux pioneer
- Completed an IPO, July 2006 on Oslo Stock Exchange
 - Ticker: TROLL
- 170 employees worldwide:
 - Oslo, Norway (HQ); Redwood City (CA); Brisbane
 (Australia); Beijing (China); Berlin, Munich (Germany)



TROLLTECH'S PRODUCTS

- Qt sets the standard for high-performance, crossplatform software development
 - Windows, Mac OS X, Linux/Unix
 - Hundreds of thousands of open source developers
 - 4,500 commercial customers
 - Dual Licensing Business Model
 - Customers: Google, Adobe, Skype
- Qtopia is unrivaled as the application platform for efficient, flexible embedded Linux development
 - Mobile phones, PDAs, STB, media players, and more
 - >100 manufacturers building Linux devices
 - 40 building mobile phones
 - Based on Qt





WHY PUT LINUX ON SMARTPHONES? DISRUPTOR #1

- Linux is a great operating system running some of the biggest servers on the Internet serving millions of users (Google, Amazon, Skype, etc.)
- Now why on earth would you put Linux on millions of mobile handsets with limited memory and hardware?
- The hacker answer: because it can be done... ©
- The real answer: there are undeniable business advantages of moving to Linux and open source



THE FIVE C'S - DISRUPTORS #2, 3, 4, 5, 6 CATALYSTS DRIVING LINUX ADOPTION

Complexity – Control

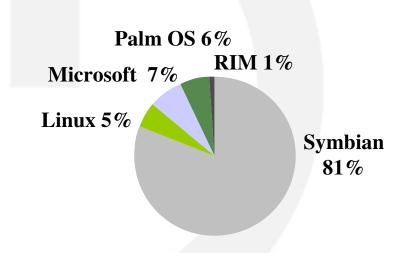
Customization – Cost - Community



LINUX IS THE ANSWER FOR SMARTPHONES

Smartphone Unit Shipments

2004



Palm OS 4%
Microsoft 4%
Linux 22%
Symbian 68%

• 16.7 million shipments

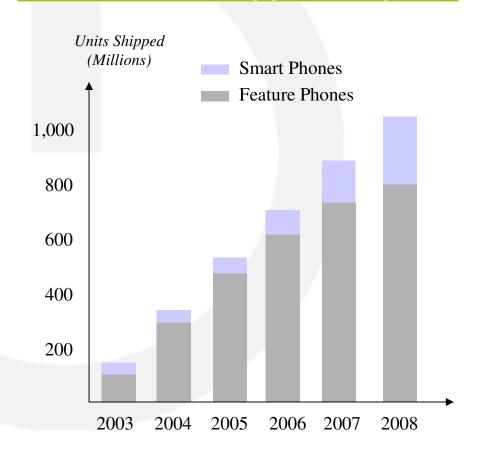
• 49.0 million shipments

Source: Gartner 2006



WITH HUGE POTENTIAL IN LESS ADVANCED PHONES

Phone Market Opportunity



Source: Ovum

CODE LESS. CREATE MORE.

Why Linux?

- Robust and flexible
- Open source
 - low cost
 - large community
- Independence
 - leaves manufacturers with a choice

"Linux is open and it's free. In the end it's the only answer. For the mass, high volume market, I can't see another software platform."

Mr. Ron Garriques, President of Mobile Devices, Motorola, Inc.



DISRUPTING THE MOBILE MARKET EVEN FURTHER

INTRODUCING GREENPHONE







WHAT IS GREENPHONE?



- Open mobile phone for development of 3rd party Linux applications
 - Enables faster development and quicker time to market
- Enables the creating, modifying, extending or testing of applications on a working GSM/GPRS mobile phone
- Fully open, customizable and re-flashable
- Targeted at commercial and open source developers, Trolltech partners, in-house software developers at operators and OEMs
- Not intended as commercial, end-user phone but as proof of software concepts



GREENPHONE

BUILT UPON AN OPEN AND PROVEN DEVELOPMENT PLATFORM - Qtopia





- Includes Qtopia Phone Edition
 - Full development license and support
 - Fully customizable UIs and extending capabilities
 - Documentation & Source Code for Applications
- Microsoft, Symbian and other Linux development platforms don't offer this level of openness
 - Above and below the operating system.



GREENPHONE

COMMUNITY OF DEVELOPERS





- Backed by Large Open Source & Commercial Community of Developers
 - Trolltech's community of commercial customers number over 4500 developers
 - Deep ecosystem of partner technology
 - Trolltech and partner professional services, training and consulting



GREENPHONE – OPEN APPLICATION DEVELOPMENT

BENEFITS FOR END USERS, CARRIERS AND ODMs





Users

- Phones with useful and easy-to-use applications
- New modes of communications will become available

• ODMs

- A choice of technology providers
- Able to take advantage of Linux benefits & focus on hardware innovation

Carriers

- don't have to depend on rival ecosystems
- can choose software for devices
- can expand applications for vertical markets

TRULLTECH®

MAJOR SUPPORT FOR LINUX ON MOBILE DEVICES

- Motorola has announced Linux as a large part of their handset strategy
- Vodafone will include a Linux platform
- FT-Orange and other players have formed LiPS to create mobile phone development standards
 - Trolltech will announce membership shortly
- Motorola Linux mobile phone shipments in China number over 1 million*
- Linux mobile phones shipping in Europe
 - Neuf MVNO



^{*} Canalys 2006 Report



TROLLTECH MOBILE PHONE CUSTOMERS

SAMPLE LIST

- Motorola
- ZTE
- Ningbo Bird
- Cellon
- TCL

- Yuhua Tel
- Eastcom
- Lenovo
- Adbon
- Simcom

- Longcheer
- Techfaith
- Tanzda
- Datang
- Quanta

- Foxconn
- Compal
- Wistron
- Telepaq
- Leadtek







CODE LESS. CREATE MORE.

TRÜLLTECH®

TROLLTECH WELL POSITIONED IN MOBILE PHONES

AND OTHER EMBEDDED DEVICE MARKET

Linux opportunities from phones to embedded devices

- Linux enables software standardization across devices
- Linux has a strong convergence story and enables innovation
- The Qtopia platform is very similar across phones and consumer electronics
- Of Trolltech's >100 Qtopia customers 40 are on phones, the rest on other embedded devices



Wireless TV/handheld



Personal Video Recorder (PVR)



Home Automation



Industrial apps



VOIP Phones



Automotive/ transportation



Medical devices



Video Phone



Set-top box



SUMMARY

- Trolltech is dedicated to enabling the faster creation of mobile applications
- Linux is best suited for growing mass market
- Stay tuned! Trolltech anticipates its large ecosystem of partners and partner technologies will participate in providing software for Greenphone



