



Reversing the Paradigm

*How to compete with Mobile Network Operators by using
Open Source components!*

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What is Truphone

-)) Truphone brings the **free** telephony model pioneered by SKYPE to the mobile phone.
-)) We use voice over IP (VoIP) technology on mass market phones to allow users to make seamless free peer to peer calls.
-)) Using Wi-Fi or 3G access points at home, office or wireless Hotspots together with legacy GSM networks to make calls and thereby building an alternative cellular network.



What is Truphone?

- 4G Operator
- vMVNO or MINO?
- Converged GSM/WiFi Solution
- World-wide deployment
- Open Source Based



Our Mission

To define, engineer and prove a new model for mass market mobile communications based upon just emerging technologies of opportunity

in order to offer more cost effective and feature rich services to end users.

-)) 'Disruptive'
-)) 'Revolutionary and evolutionary'
-)) 'Truly Telepocalyptic'
-)) 'Unbelievable – but TRU!'



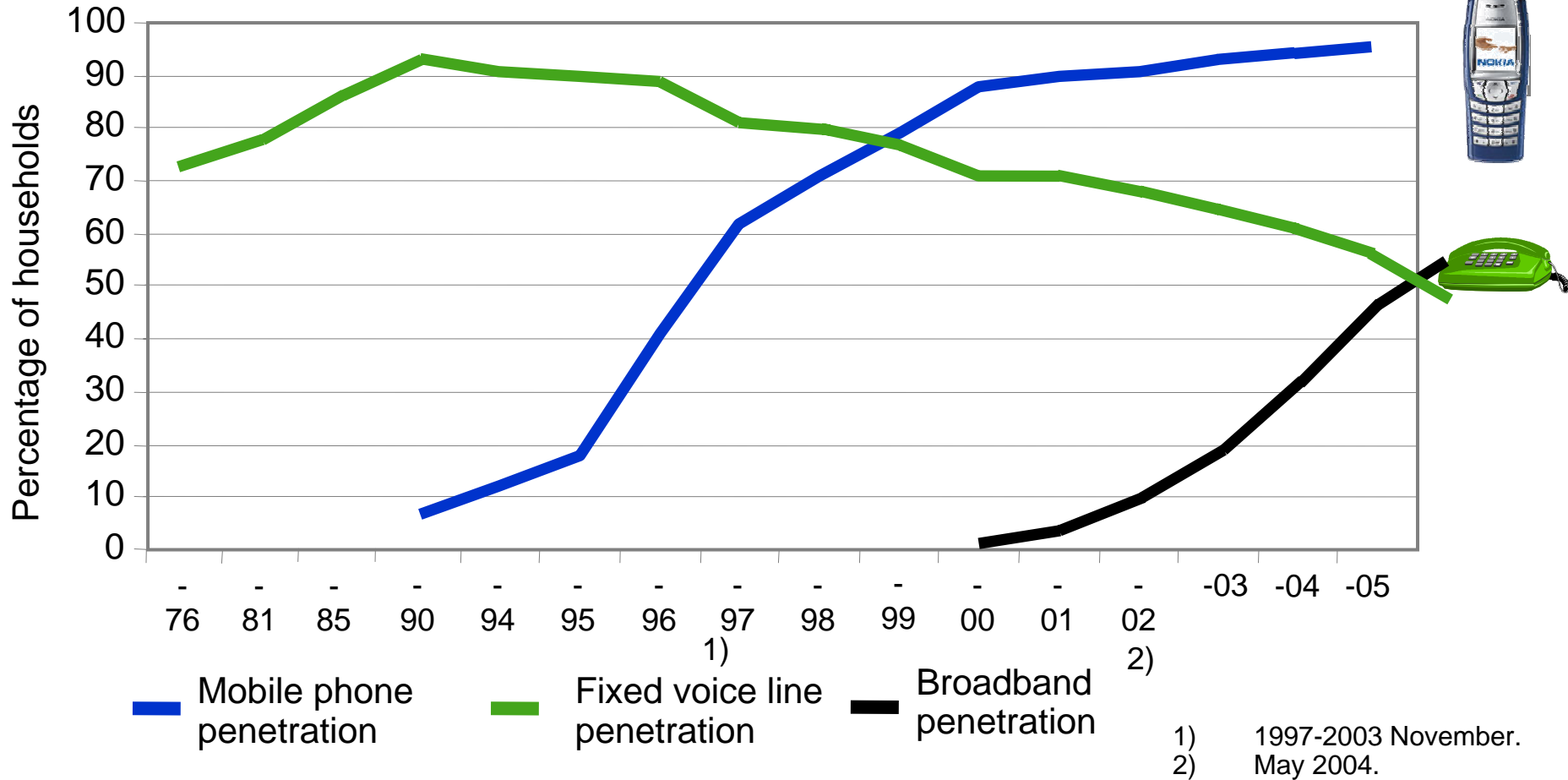


The Enabling Factors

What conditions have changed that allow us to deploy Truphone?

Broadband passed PSTN in 2006

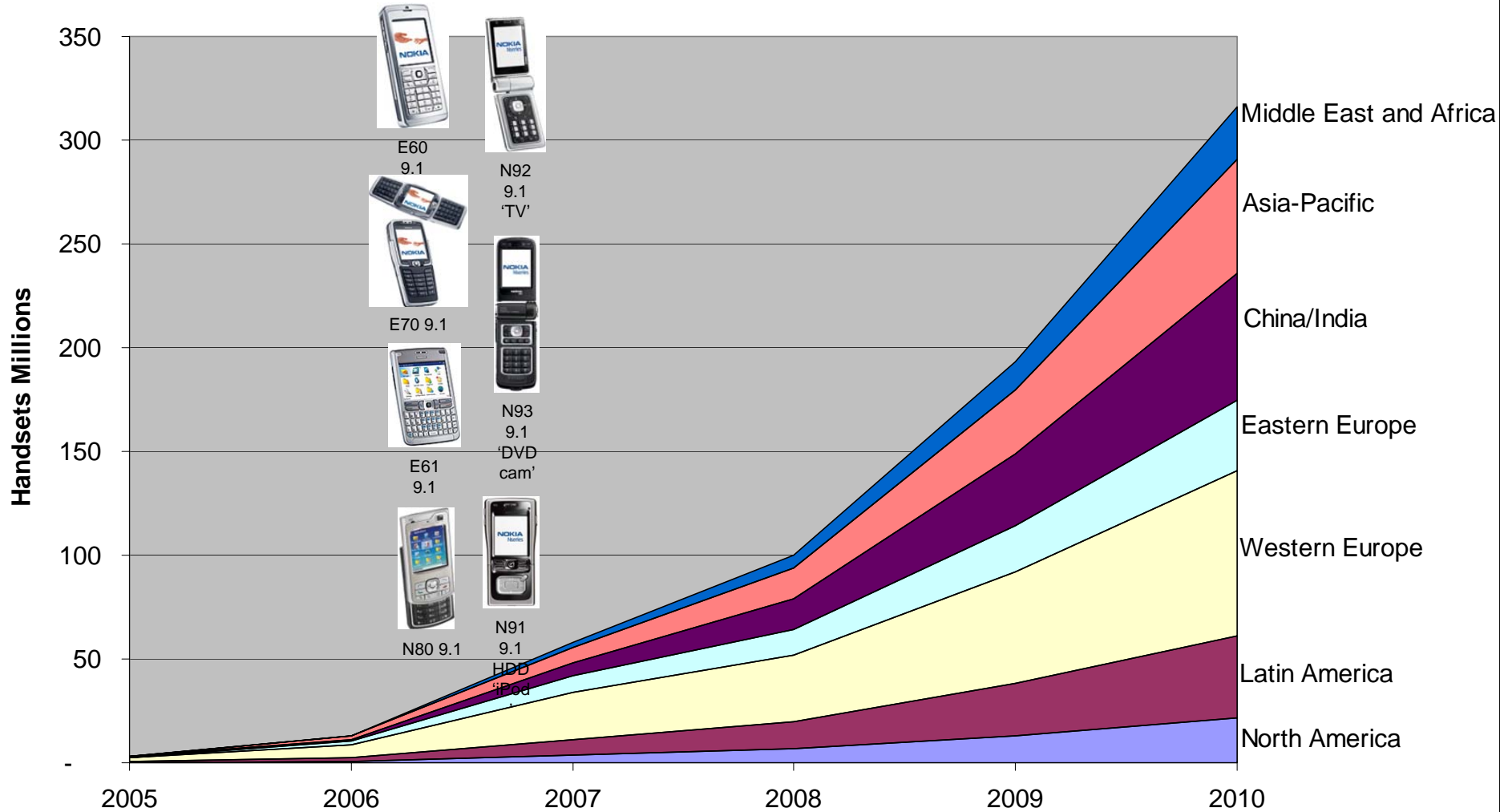
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Sources: Tilastokeskus: Kotitaloustiedustelut, Kulutustutkimus, Kuluttajabarometri, Tiedolla tietoyhteiskuntaan.

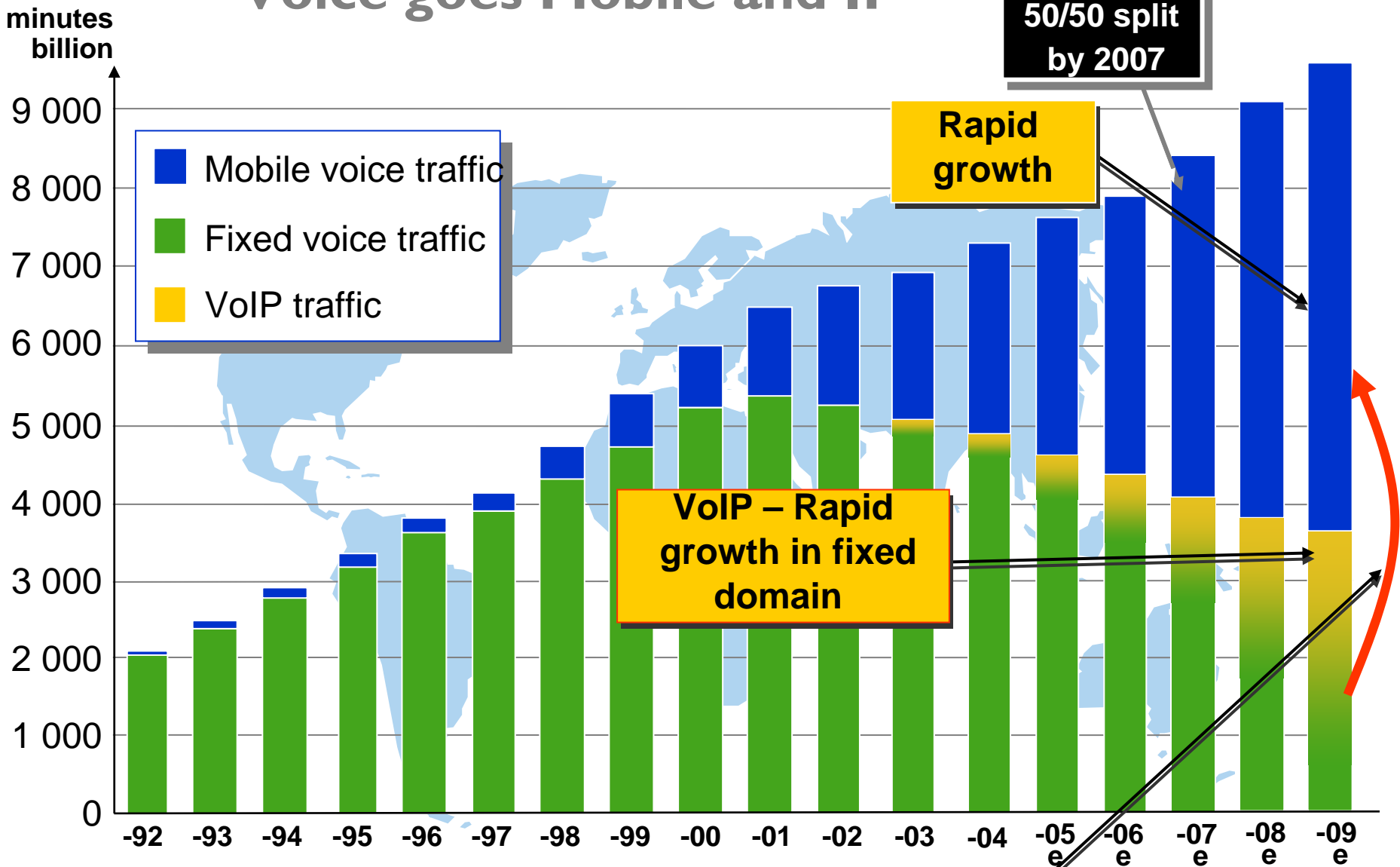
Smallest TAM Estimate

Symbian Wi-Fi Installed Base



Voice goes Mobile and IP

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Sources: National Regulators, ITU, Operators

Fixed to Mobile Substitution

Low Cost System Building Blocks

-)) Openser - Open Source/GNU Public License (<http://www.openser.org>)
-)) Asterisk - Open Source/GNU Public License (<http://www.asterisk.org>)
-)) Kannel - Open Source/GNU Public License(<http://www.kannel.org/license.shtml>)
-)) Free Radius - Open Source/GNU Public License(<http://www.freeradius.org/>)
-)) MySQL - Open Source/GNU Public License (<http://www.mysql.org>)
-)) Apache/PHP
-)) NAGIOS/monit
-)) Sendmail - Open Source/GNU Public License(<http://www.sendmail.com/products/osrc/index.shtml>)
-)) Linux: <http://www.linux.org/> on a standard GNU GPL License

Costs of deployment are TINY compared with conventional cellular infrastructure

The Recipe

-)) Market conditions (Arbitrage / Rip off tariffs!!)
-)) Widespread cheap WiFi distributed broadband
-)) SIP capable dual mode phones
-)) VoIP infrastructure becoming widespread
-)) Mature and exceedingly feature rich Open Source packages

PLUS

-)) A motivated team of innovators from around the world who REALLY believe in the end product!

Stir well, place in darkened room, trickle in beverages and bandwidth, then stand well clear!

We started on a Farm.....

- Hurst Farm – Kent
- Famous for ‘Crockhamdale Cheese’
- 100% Organic
- A healthy environment for cultivating new disruptive ideas
- Close to LGW and London
- Rush hour – watch out for the cows!



Challenges

Infrastructure sized for 500,000 subs (YEAR 1)

Must support

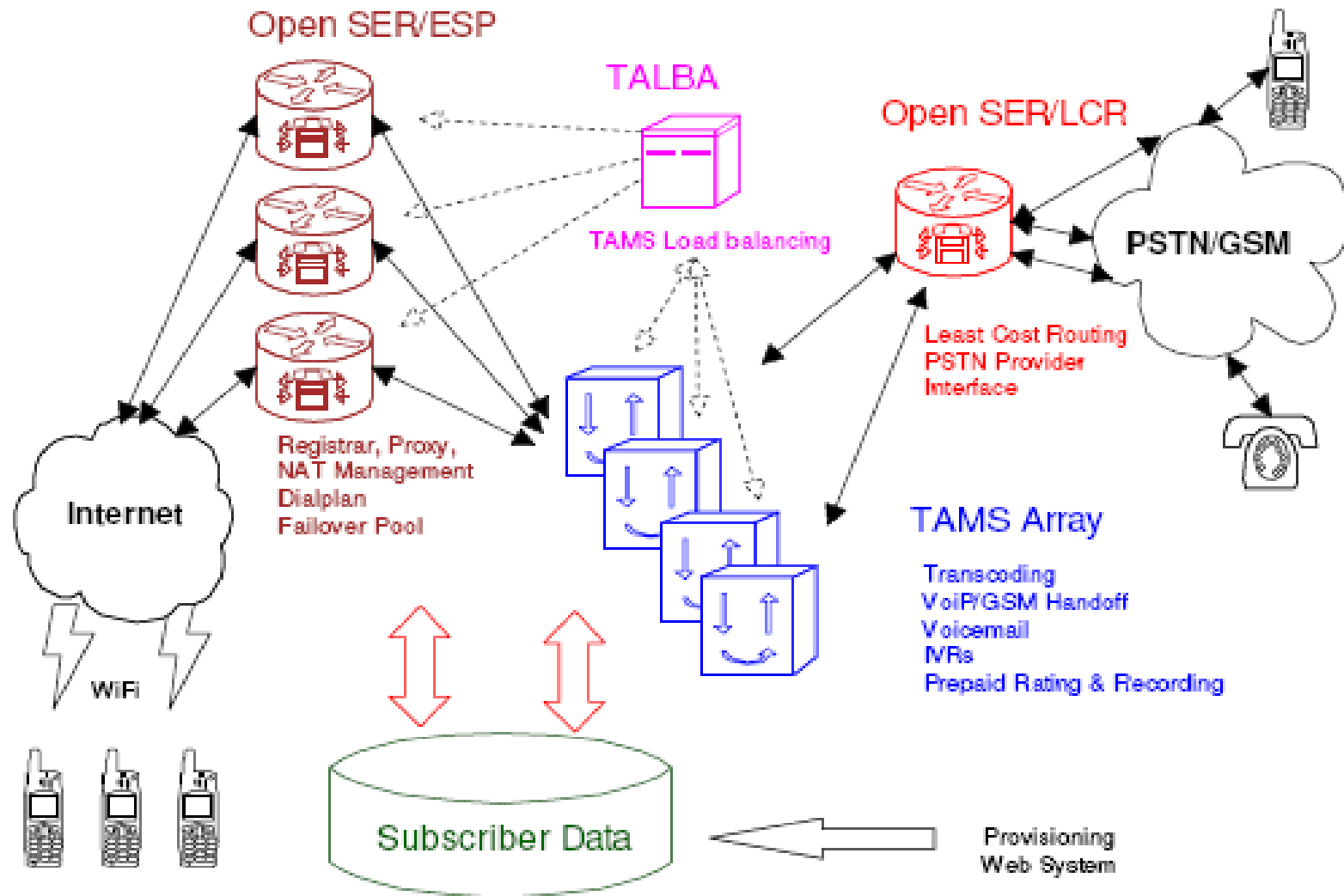
-)) Roaming
-)) Handoff
-)) Codec translation (AMR – an exceedingly good codec)
-)) Multiple Languages
-)) Multiple Currencies
-)) NAT and firewall traversal
-)) Prepaid Billing Model

Expect Rapid Changes – flexibility Required

all the 'illities'

Plus lots of FUN!!

Approach



Which Phones?

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Symbian Series 60 Edition 3

)) E- Series 'Business phones'

- ☐ E60 'Candy Bar'
- ☐ E61 'Blackberry Killer'
- ☐ E70 'Gull Wing'

)) N – Series 'Multimedia phones'

- ☐ N80 'Mini Media'
- ☐ N91 'iPod Killer'
- ☐ N93 'Media Hunter Gatherer'

)) Coming Soon

- ☐ MS Smartmobile 5
- ☐ MS Smartmobile 6
- ☐ 'Budget' WiFi Only

)) Project 'X'



How do I get truphone?

Step 1



Text "Tru" to
**+447624
000000**

SMS sent to
your phone

Step 2

Click on link



Website opens

Step 3

Simple "yes,
yes, yes"
options on
website



And you're
done

Step 4 (optional)



Visit truphone.com to
update profile and options

Understanding what customers want.

1. Ease of use – ‘The 2 minute Test’

- Enabling the service
 - Download over air
 - Automate as much as possible
 - The fewer user responses required the better

2. Ease of use – ‘The Grandma Test’

- Using the service
 - Don’t make the customer have to change behaviour
 - – “I don’t want to have to learn something new”
 - Make it hassle free
 - One address book for everything
 - Fixed, mobile, SIP, Email, addresses, the lot!

Understanding what customers want

3. Ease of use – ‘All for one and one for All!’

- One device – tru integrated convergence
 - Not only for mobile traffic but fixed as well
- Simple understandable, transparent pricing
 - That give tremendous cost savings.

4. Cellular coverage fill-in – even in my house!

- 25% of UK suffer from poor or lack of coverage
- Give the user the confidence that with one number s/he can be reached (always on)

Understanding what customers want

Have fat pipe, so can deliver...

5. Additional services – ‘Dripping with Features’

-)) Branding Messages
 -)) Colour Ringback
 -)) Creative Diverts
 -)) Improved Voicemail
 -)) Pulver's Purple Ringing
 -)) SMS
 -)) Local Dial plans
 -)) URI Dialing
 -)) LCR
 -)) Content Download
 -)) Video Calling
 -)) International Roaming
 -)) Conference Calls
 -)) SMS
 -)) MMS
 -)) Location based services such as mapping ('Truphone Trampy')
 -)) Music Downloads
- PLUS a whole load of other FUN stuff!

The Offering.....

TODAY

-)) Free and 'Open' SIP Telephony
-)) Outbound calls to PSTN
 - ▣ 'Cost free' calls
 - 40 countries on European Tariffing Model (2 Billion Phones Worldwide)
 - US and CA for NA Tariffing Model
 - Subject to Acceptable Use Policy!
-)) Inbound calls from PSTN to Truphone number
 - ▣ With 'intelligent' Call Forward to GSM where required
-)) Inbound and Outbound SMS (using SIP/SIMPLE)
-)) Feature rich voicemail/media services

IN THE PIPELINE

-)) Rich presence and IM (including interoperability)
-)) Location based services (using handset and network)
-)) Loads of other FUN 'stuff'!

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Questions?



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Friends of Truphone

So – if you

-)) Like the idea of being disruptive
-)) Have an active and unbridled imagination
-)) Believe passionately about the power of Open Source components
-)) Are sick of paying OUTRAGEOUS amounts of money to cellular operators
-)) Want to operate with the latest toys and techniques

THEN

-)) Become a FOT – ‘Friend of Truphone’!

