

BluePhone – BT's killer app?

Fixed-mobile convergence in the UK

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British Telecom at a glance

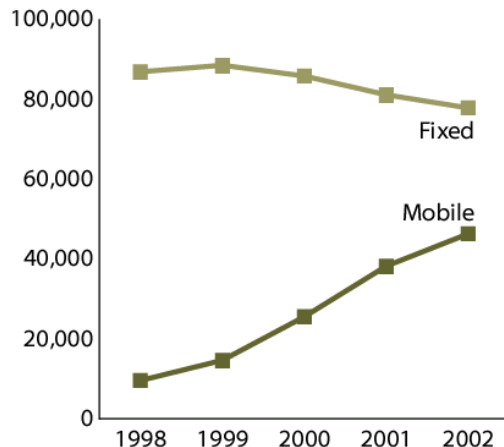
- Incumbent PTT in the UK
- Largest access infrastructure – 24 million homes
- 19.5 million residential voice customers
- 5.1 million business voice customers
- £18.5 billion group revenue
 - £13.5 retail revenue




BT facing attack on multiple fronts

- Secular decline in traditional revenue base
 - Group revenue down from £20.5 billion in 2002 to £18.5 billion in 2004
- Line loss and call leakage
 - Cellular
 - Indirect Access resellers (4.1 million CPS lines)
- Regulatory pressure
 - LLU
 - Pressure to split retail from wholesale

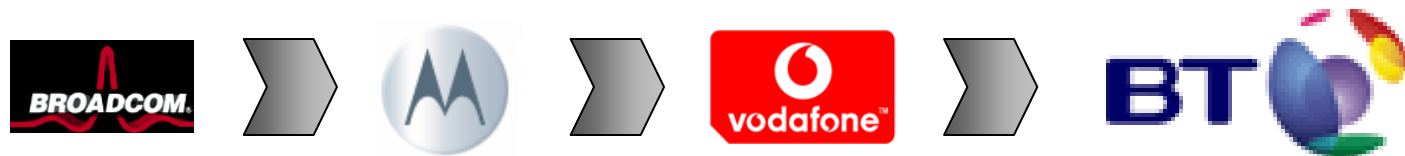
UK fixed and mobile residential voice traffic
(millions of minutes)



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- BT must respond to these challenges
 - Multiple initiatives
 - 21st Century network
 - Re-enter mobile market
 - Video
 - Bluephone

BluePhone

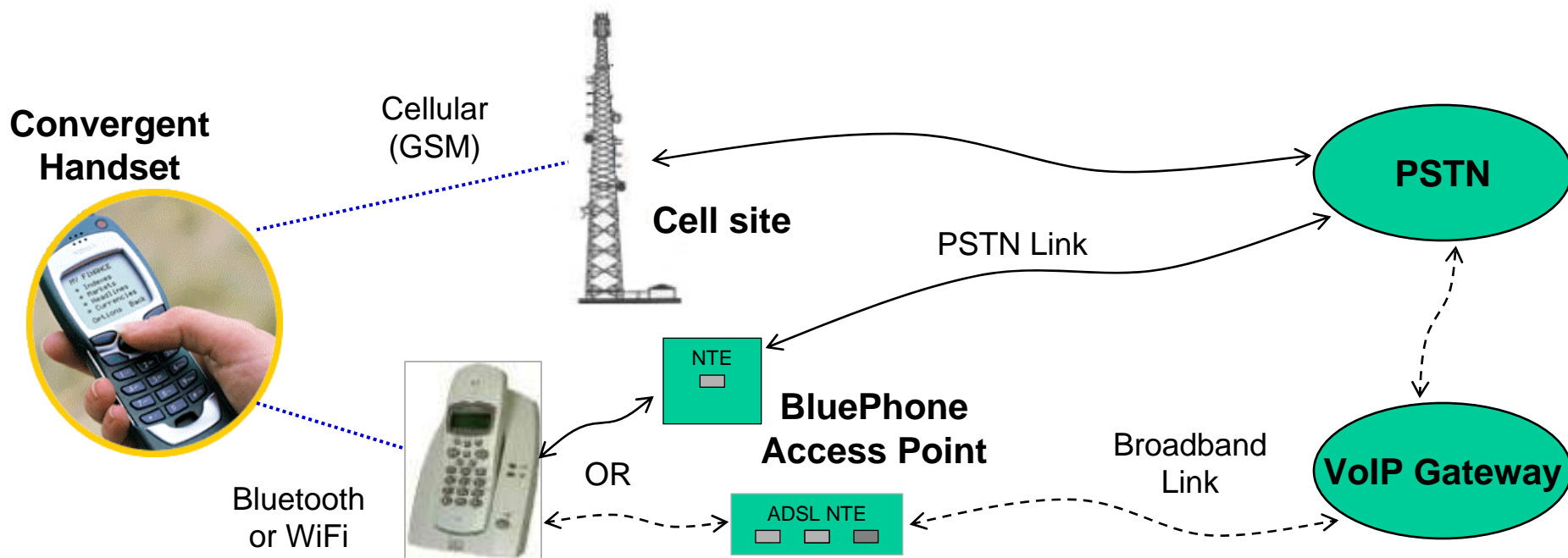
- BT's fixed/mobile convergence solution
- BT taking global lead in convergence
 - Founding member of Fixed Mobile Convergence Alliance
- Soft Launch in 2004 December, full launch in spring 2005



- Partnership with Broadcom for chip, Motorola for handset and Vodafone for mobile service

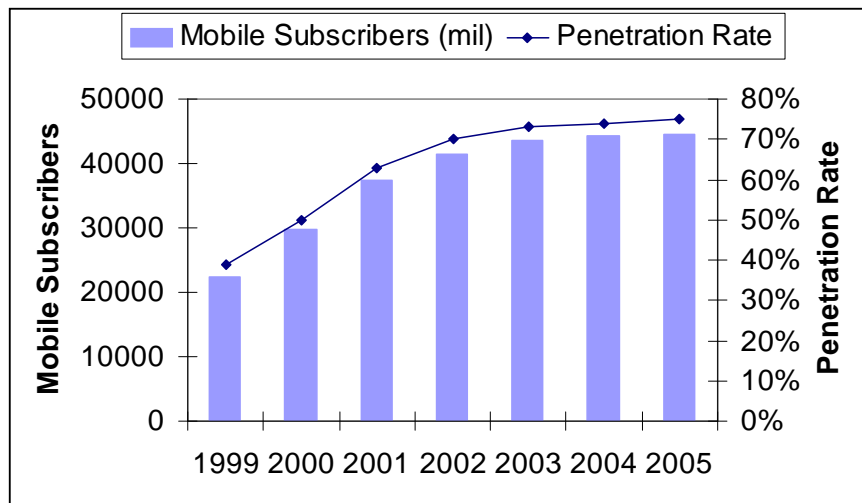
Fixed / mobile convergence

- Single handset and telephone number supports both fixed line and cellular.
- Calls routed to fixed-line network within range of Bluetooth access point
- Out of range calls routed to cellular network



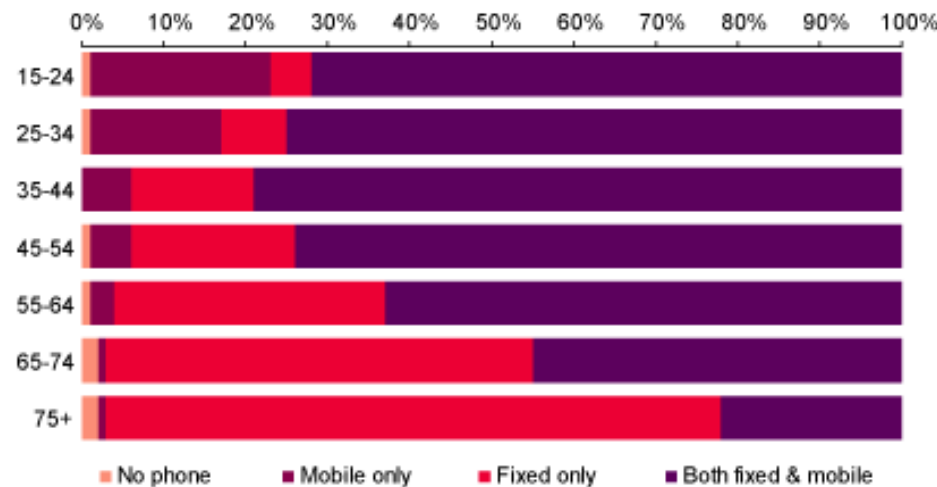
Social trends driving convergence

UK mobile penetration



- High mobile penetration today vs 10 years vs 20 years ago

Telco preference by age



- Whole generation grown up with cell phones

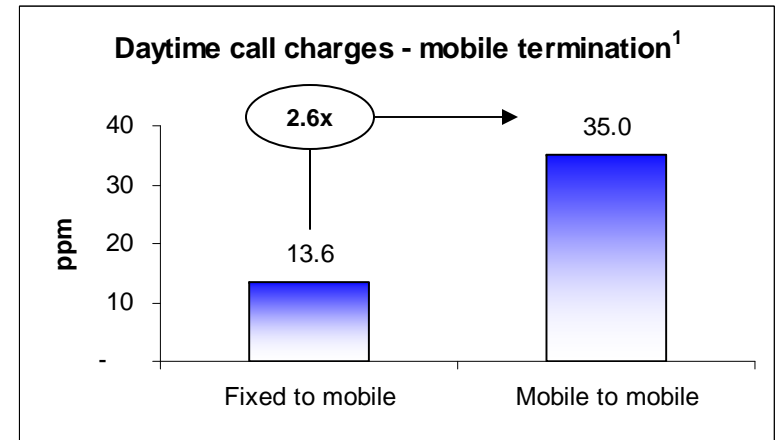
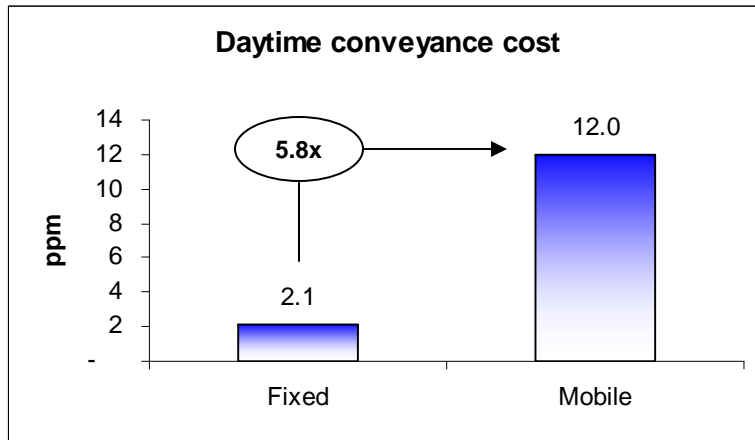
Technological progress (Handset Evolution)

- Handsets were bigger than regular cellular phones.
- Requirements for handsets
 - Single phone for cellular and local wireless.
 - Same form factor as cellular phone.
- Currently, both chipsets and handsets are available.
 - Motorola handset using Broadcom Bluetooth chipset.
 - Range: 25 m indoors, 60 m outdoors.

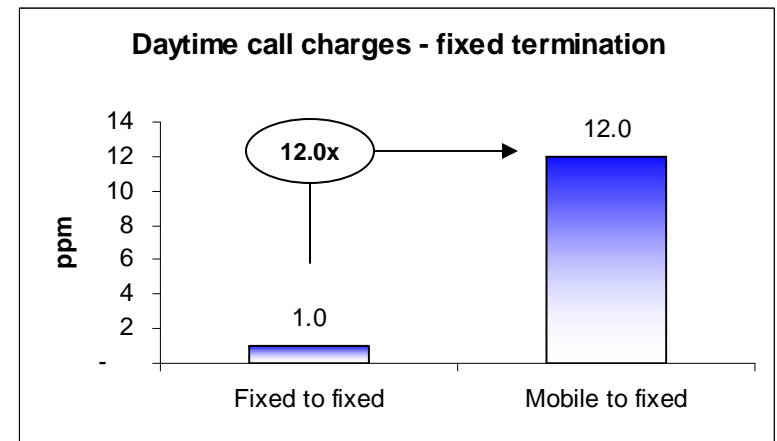
Alternative Technology Models

	WiFi (IEEE802.11)	WiMax and BWA (IEEE802.16, 802.20)
Pros	High Data Rate Affordable Chipset	High Data Rate Long Range Moderate Mobility
Cons	Short Range Low Mobility Power Consumption	Chipset N/A Power Consumption
Implication	Potential to replace BlueTooth in the handset	Potential to replace cellular in urban areas

Regulatory impetus for convergence



- Regulatory driven discrepancy between fixed and mobile termination rates creates economic arbitrage opportunity
- Key difference between Europe and US



1. Based on published per minute call charges; actual charges may vary depending on choice of package

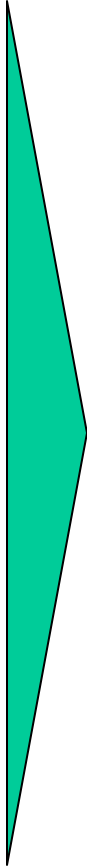
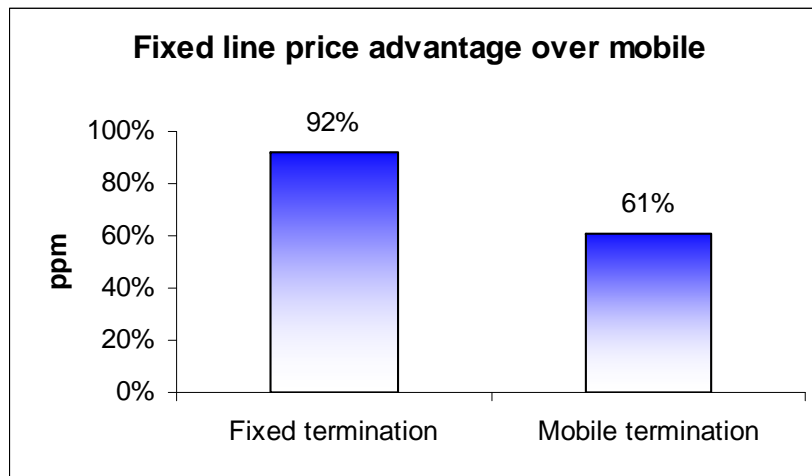
Who are the right customer?

Resident Customers	SME Businesses	Enterprise Businesses
<ul style="list-style-type: none">▪ High risk of churn▪ Significant lifestyle and cultural factors▪ Segment represents more than 50% of voice revenue▪ Today, high mobile tariffs keep them from switching▪ Consumers can save up to 50% on home-based mobile call costs using Bluephone¹	<ul style="list-style-type: none">▪ Moderate risk of churn▪ Existing PBX investments act as deterrent▪ More open to voice and data convergence via VoIP▪ Latent demand for converged service	<ul style="list-style-type: none">▪ Low risk of churn▪ Existing PBX investments act as deterrent▪ Enterprises are slow to adopt new technology▪ More open to voice and data convergence via VoIP

Consumer and SME segments more likely to take up BluePhone

Customer value proposition

- Convenience
 - Customers value mobility
 - Single phone number
 - Single handset and address book
 - Convenience cited as “essential” or “very important” to 80% of UK telecoms users¹
- Cost benefits
 - Ability to control expenditure “essential” or “very important” to 70% of UK telecoms users

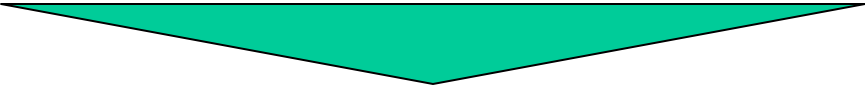


"We see huge pent-up demand for simplicity"

- Steve Andrews
(Head of Mobility and
Convergence, BT)

Residential product economics

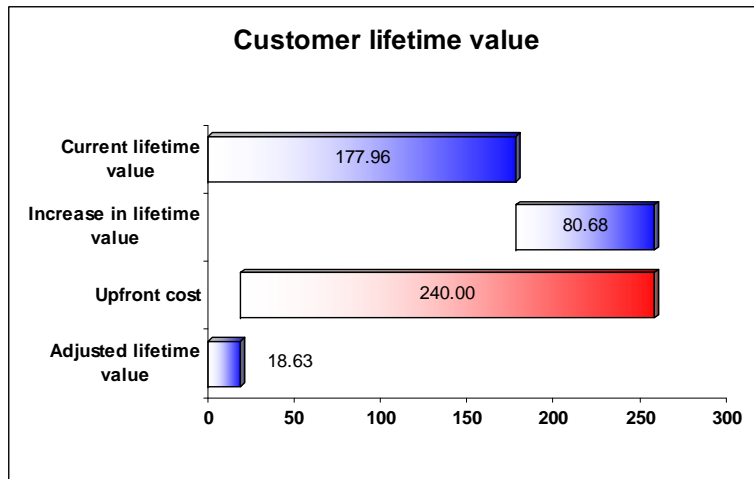
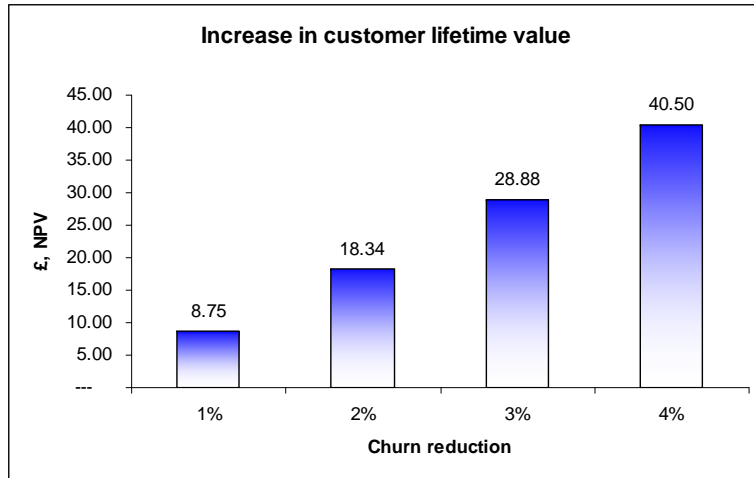
Flat Rate Price	£5.00	£10.00	£15.00
Incremental gross margin	£0.52	£3.02	£5.52
Payback (months)	465	80	44
5-year rate of return	-63%	-11%	13%



Residential product economics poor on a standalone basis

- ARPU upside not driven by usage
 - Likely users high-ARPU customers, flat rate 24x7 packages (£25.50)
 - Incremental calling limited usage based revenue impact (mobile termination, international, premium rate only)
- Modeling assumptions
 - £40 SAC, £200 CPE
 - 30% calls to mobile
 - CellCo shares 50% gross package revenue
 - 200 additional minutes per month (c.20% increase)

Reducing churn is not enough



- Churn reduction creates substantial improvement in customer lifetime value (5-20%)
- Net increase in value not sufficient to offset upfront investment, even with significant reduction in churn
- BluePhone likely to destroy value for residential customers


Business users more profitable



What's in it for Vodafone?

- Vodafone holds approximately 30% of the slow growing mobile market in UK
- However, Vodafone is facing about 29.6% churn rate¹
- *"This enables Vodafone UK to maximise its network and service assets while generating additional revenue from a new source"— Bill Morrow, CEO*
- Bluephone opens up opportunity to reach 19.5 million residential customers and over 5 million business customers
- Given that many of these customers are likely to retain their BT phone numbers, Vodafone is likely to retain these Bluephone customers. 10% reduction in churn results in 115M increase in operating profits!

Alternative operator models

- ARPU generation
 - Economics for fixed line operator not compelling
 - Benefit accrues to mobile operator
 - Customer acquisition tool
 - Cable companies better positioned
 - Mobile operators benefit
 - Customer retention tool
 - Benefit to incumbent diluted by poor economics
 - Bigger benefit to mobile operators
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- BT should bundle BluePhone with high margin data products
 - Mobile operators should deploy convergent solutions as a customer acquisition tool
 - Cable companies can deploy quad-play for both customer acquisition and retention