



# The Consumer Experience

Telecoms, Internet and Digital Broadcasting

Policy Evaluation

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## Foreword

Ofcom has only one principal duty afforded to it under the Communications Act 2003, which is to further the interests of citizens in relation to communications matters; and to further the interests of consumers in relevant markets, where appropriate by promoting competition. As a result, everything that Ofcom does is ultimately geared towards securing better experiences for consumers and citizens.

Since inception Ofcom has worked to create a sustainable competitive framework for regulation. Sustainability and regulatory certainty are particularly significant in communications markets, as they depend heavily on the development and application of new technologies and this in turn relies on the ability of the UK to attract investment capital. Effective competitive markets ensure that providers have the incentive to deliver good services to customers at a low price and to innovate in service delivery so that new products are geared towards consumers' needs.

We also strive to ensure that customers can engage with the market, by being enabled to make informed choices regarding provider and service and by having processes that enable them to switch supplier easily when they choose to do so.

We also want to make sure that consumers can shop around and consume services with confidence, are protected from scams and unfair practices, and can complain and seek redress when things do go wrong.

Finally, we have a role in seeking to ensure that particular communications services are delivered in a manner that is fair. We work to ensure that those services of social importance are provided in a way which allows all our citizens to benefit from the services we value the most and that the particular interests of all parts of society, including disabled, rural and low income users, are acknowledged and addressed.

### The reports

Given this mission, we need to make sure we have mechanisms to evaluate the experience of consumers and citizens in relation to telecoms, digital broadcasting and the internet. That is the purpose of this document – our annual report of the consumer experience. In a separate volume published today, we list the full results of a major research exercise aimed at measuring how well consumers are faring in respect of these services. Where we have data available, we track the research results over time and look to benchmark them against other sectors and other countries. We do not cover TV or radio content issues here as these are subject to separate reporting by Ofcom.

This volume – A Policy Evaluation – examines the data and uses it to assess the impact of regulation and the priorities we have set ourselves. We want to understand, where possible, whether our existing priorities are having the desired consequences. Where we find consumer experiences that are not as positive as we would like, or where we think that further Ofcom action may lead to improvement, we want to make sure that Ofcom's priorities are set appropriately.

Equally, if we find that a particular regulatory approach is not having the impact we would like we will re-evaluate our approach. Likewise, if data reveals major new concerns, then we

will use it to reassess our priorities to see if a shift of resource towards new issues would allow us to improve the consumer experience.

In short, we want to make sure that our resources are used in a way which most improves the experiences of citizens and consumers in the UK – and that our actions are the right ones in helping to secure positive outcomes. By carrying out regular assessments of research evidence, we can re-focus and prioritise and engage with stakeholders in an informed debate about where we should focus our efforts in the months and years to come.

More generally we will seek to consider more thoroughly the impact of our policy work and market developments on all customer groups in particular those living in rural areas, older people, children, disabled customers, those from ethnic minorities and customers on low-incomes.

## **The findings**

This year's report indicates to us that our approach to competition and regulation is providing significant benefits to consumers in terms of falling prices, increased satisfaction and greater range and wider availability of services. Over the last year we have increased our efforts on consumer protection and empowerment issues – in particular around switching and misselling. The data confirms that these are important issues. Progress has been made and we will reinforce our efforts to protect consumers from harm and to strengthen the culture of compliance within industry. We will step up our efforts to make sure we take effective and speedy enforcement action against those who flout regulation.

The report also begins to show convergence becoming a reality. Consumers increasingly are able to obtain services from a range of alternative platforms – for example TV and internet over mobile phones; voice calls, TV and radio over broadband. The range of each service is also increasing: greater choice of broadband speeds, more television channels and radio stations. Consumers can choose bundles of services on the same platform, or obtain services on a range of platforms. For example, TV, radio, internet access and voice calls can all be supplied through a broadband connection or delivered separately.

These are positive developments – bringing opportunities for reductions in price, more tailor-made packages, a single point of contact and a single bill for different services. But they also mean that consumers have to make sense of increasing complexity and choice and may be exposed to new forms of annoyance or harm, such as the potential for more difficulty in switching providers.

There has been a marked increase in convergence and bundling during 2006 and this research is only starting to pick up their full effect. We expect these trends to accelerate and have a clearer and significant impact on consumers' experience in future years. We need to ensure our regulatory approach addresses these changes.

Examining issues around the extent of the availability of services throughout the UK and the take-up and use of services by all customer groups will be another priority for us in particular as technology changes and services converge. We need to review 'universal service' rules to ensure they continue to be relevant as society and markets change and consider whether new methods for delivering social outcomes are needed.

These will be challenging areas for Ofcom where our statutory duties may not be explicit and direct regulatory intervention not appropriate but which may be crucial to the delivery of the interests of citizens in communications services. We will seek to identify obstacles to delivery and take-up, assess their significance and consider whether we can or should act, either directly or through a facilitation role, to remove or overcome them.

## Your views

This is the first time we have carried out an evaluation of this kind and, as a result, we are still developing the measures we use. We intend to repeat this exercise annually, and are keen to keep developing our list of measurements to allow a thorough policy evaluation of Ofcom's work to further the interests of consumers and citizens. For example in future reports we intend to include international price and availability comparisons and more data on consumers' use of broadcasting services.

We want stakeholders' views on our report, the measures we use and the policy analysis. We want to continue our dialogue over our priorities and the actions most likely to achieve the results we are seeking. In section 5 of this paper we suggest ways that stakeholders can feed into this process.

**David Currie**

**Chairman**

**Ed Richards**

**Chief Executive**

## Section 1

# Executive Summary

- 1.1 Under section 3(1) of the Communications Act 2003 (the 'Act'), it is Ofcom's principal duty, in carrying out our functions:
- to further the interests of citizens in relation to communications matters: and
  - to further the interests of consumers in relevant markets, where appropriate by promoting competition.
- 1.2 The Consumer Experience is the first in a series of annual publications which will report on Ofcom's progress in carrying out this duty and specifically on how regulatory developments in the communications markets are affecting citizens and consumers.
- 1.3 This policy assessment and the accompanying research report examine consumer experiences in respect of fixed and mobile, internet and digital broadcasting services.<sup>1</sup> Neither report covers broadcasting content issues as Ofcom reports on these separately.
- 1.4 The report focuses on four areas:
- Choice and range: levels of customer satisfaction, the range of services available and price changes
  - Access: availability and take-up of services
  - Empowerment: awareness of suppliers, access to comparable information and ability to switch suppliers
  - Protection and concerns: complaints to Ofcom and key consumer concerns
- 1.5 Looking forward, we identify those issues that will be important priorities for us as technology changes and services converge. Convergence and bundling of services in particular offer potentially significant benefits to consumers in terms of increased choice and flexibility, lower prices and a single point of contact for bills and service provision. They may however also increase complexity for consumers in comparing services and switching providers. We want to make sure regulation facilitates the positive developments while addressing the potential risks appropriately.

## Choice and range

- 1.6 The first area of the consumer experience we consider is choice, comprising customer satisfaction, price changes and the range of services available.

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<sup>1</sup> Ofcom's consumer policy consultation - published in February 2006 - asked for stakeholders' views on what indicators would provide an appropriate basis for monitoring the consumer experience. The indicators used in this report take on board the comments we received.

- 1.7 Central to Ofcom's approach to consumer policy is that consumer interests can in general best be served by promoting effective competition in the provision of communications services. Competition can lead to lower prices and innovation in products and services.
- 1.8 As an outcome of Ofcom's Strategic Review of Telecommunications ('the Telecoms Strategic Review'), BT has to provide equivalent access to its competitors as it does to its own retail business. In fixed markets, the introduction of Wholesale Line Rental (WLR) has ensured competition to BT in the provision of lines and calls across the UK.
- 1.9 The research report shows that competition, investment and innovation are continuing to drive price reductions for fixed, mobile and broadband services. A household bill for a 'basket' of these services has fallen in real terms from approximately £113 a month in 2001 to £76 a month in 2005.
- 1.10 2006 saw the increased availability of bundles of products, combining different services such as broadband, fixed line, mobile and digital television into packages. These bundles often contain a 'free' element, often 'free' broadband linked to the customer taking other service packages. For instance, Sky launched 'free' broadband with some of its television packages and Carphone Warehouse 'free' broadband for customers who purchased certain calls packages. Although the impact of bundles does not feature significantly in this year's report, we expect them to continue the downward pressure on prices in future years.
- 1.11 The range of choices available to consumers within services has continued to increase. In 2005 most of the mobile network operators introduced the option of live television streaming over mobile with a range of pricing structures available. When fixed broadband was introduced 512kbit/s was the common speed available; now speeds of 2Mbit/s, 8Mbit/s, 10Mbit/s and 24Mbit/s are often options available, depending on the distance of customers from the exchange or the quality of the network.
- 1.12 Digital television services are available to consumers through digital satellite, digital terrestrial television ('Freeview'), digital cable and in some areas via broadband. There is an increasing choice of television channels available to consumers. There are over 400 channels available on all digital television services including over 40 on digital terrestrial television
- 1.13 Digital radio is available across the UK through a range of service platforms - the internet, digital television and digital audio broadcasting (DAB) radio. The number of radio stations broadcasting in the UK on AM, FM or DAB, excluding very local community stations, increased from 372 in 2004 to 384 in 2006.
- 1.14 Consumer satisfaction across communications markets has increased significantly since 2004 largely driven by increased satisfaction with value for money. As a comparison, this brings levels of satisfaction with communications services in line with those for banking and higher than those in the energy markets.
- 1.15 Ofcom will continue with vigorous measures to promote competition in communications markets, including ensuring the full implementation by BT of the undertakings resulting from the Telecoms Strategic Review.

## Access

- 1.16 The second area of the consumer experience we consider is access, including availability and take-up of services.
- 1.17 For fixed line services, Ofcom's policy objective of universal availability has been met, guaranteed by the universal service obligation (USO), although a limited number of households in remote locations may face higher charges for connection. Take-up of fixed line services appear to have stabilised at 91% following a period of growth of mobile-only households.
- 1.18 After a period of growth, coverage and take-up levels are relatively high and stable for 2G mobile services. 99.9% of the UK population live within postal districts that have at least one operator with at least 75% area coverage and 94.6% of the UK population live within postal districts that have that level of coverage by four operators. Lower levels of coverage are reported in rural areas.
- 1.19 Around 80% of adults have a mobile phone. The UK has higher take-up rates of mobiles than France, Germany, Ireland, the Netherlands, Sweden and the USA. Of the countries surveyed by Ofcom only Italy showed a higher number of mobile subscriptions.
- 1.20 To address limited or no 2G mobile coverage in some rural areas, Ofcom will be exploring with providers the possibilities for introducing roaming for 999/112 calls. We will also consider issues around the lack of mobile coverage in some rural areas more generally.
- 1.21 Ownership of personal computers continues to increase, reaching 68% of consumers. However only around a third of over 65s and under a half of lower income households have a PC. The number of consumers connecting to the internet at home has increased from 50% in 2003 to 61% in 2006.
- 1.22 Availability of broadband has reached over 99% of customers. Currently 72% of internet households use broadband. Internet and broadband use remains lower amongst customers over 65 and in low-income households but these groups have seen significant increases in use of the internet and broadband over the last year.
- 1.23 In terms of international comparisons of take-up of broadband, the UK is slightly ahead of the US and France and significantly ahead of Italy and Germany. However, the UK is behind Japan and the Netherlands.
- 1.24 We believe that the promotion of competition will create new investment, innovation and price competition which will drive availability and take-up in broadband markets. Ofcom is looking to achieve this by ensuring access by competitors to BT's local loop on a wholesale basis and through Local Loop Unbundling (LLU).
- 1.25 Approximately 98% of households across the UK are able to receive digital satellite television, at least 73% are currently able to receive DTT and 45% of households can access digital cable. Take-up of digital television continues to increase: around 70% of households now have digital television. As with broadband services, lower levels of take-up are found amongst older and lower-income customers.
- 1.26 On DTT, we have confirmed coverage plans which will eventually provide the service to 98.5% - the same proportion of households currently reached by analogue providers – when the analogue TV signal is switched off progressively through 'digital

switchover'. Although Ofcom is not responsible for dealing with the majority of consumer issues raised by digital switchover, we work closely with Digital UK, the body responsible for managing the switchover process. We recently published a report on viewers' priorities arising from switchover and will be monitoring developments and reporting periodically.

- 1.27 79% of households have access to digital radio across all the platforms on which it is provided - the internet, digital TV and digital audio broadcasting (DAB) radio - although fewer than 32% of customers say they listen to digital radio. Availability and take-up of digital radio can be expected to accelerate in line with growth of the service platforms on which it is provided, when Ofcom awards the second national licence and new local licences, as industry rolls out and promotes services and as the price of DAB sets continues to fall.
- 1.28 As technology changes and services converge and as access to communications becomes increasingly important for people to play a full part in the social and economic life of the country, examining issues around the extent of the availability of services throughout the UK and the take-up and use of services by all customer groups will be a priority for us.
- 1.29 Issues around the take-up of the internet and broadband services will in particular be challenging as they are affected by broader socio-economic factors – exemplified by the low take-up of PCs by the over 65s and in lower income households. Nevertheless these issues are important in delivering the interests of citizens in communications services and we will need to consider new approaches and the roles of Ofcom and other stakeholders in delivering these social outcomes.
- 1.30 We will seek to understand further and identify the nature of obstacles to delivery and take-up, assess their significance and consider whether we can or should act, either directly or through a facilitation role, to remove or overcome them. To address these issues we will shortly be launching a new project on digital inclusion which will operate alongside our on-going work on media literacy and our research programme.

## **Empowerment**

- 1.31 The third area of the consumer experience we consider is empowerment. This is made up of awareness of alternative suppliers, access to comparable information and the ability to switch supplier.
- 1.32 Consumers need to know how to get the best possible outcomes from their dealings with the market and to secure the benefits of competition. This means they need to have the confidence, information and understanding required to enable them to make rational, informed choices between providers or services and to seek the best deals for themselves from their current providers or by changing suppliers.
- 1.33 Ensuring that consumers are empowered becomes more challenging as the competitive market and convergence delivers more choice for consumers - with services increasingly becoming available over different platforms and with an expanding range of options and packages available for each service.
- 1.34 Awareness of more than one supplier for major services has increased significantly over the last 18 months linked to increased competition in the fixed line and broadband markets. We believe that with high levels of competition this trend will continue.

- 1.35 Over 80% of consumers are able to identify at least one place to go for trusted comparative information on service providers. Consumers say they find it easier to compare costs than to compare quality of service. Approximately one quarter of telecoms and internet consumers (ranging between 21% and 27%) find it difficult to make cost comparisons; around a third say they have difficulty comparing quality of service.
- 1.36 Ofcom has operated the 'PASS' accreditation scheme for third party services which supply accurate and impartial information, and enable consumers to compare the prices of different providers. We intend to review and relaunch this scheme. We believe that a new scheme, offering consumers quality-assured price comparison services for both single and bundled communications services - which is promoted by Ofcom for consumers to use - would be the most effective means of ensuring wide availability of effective price comparison information. We will be publishing details of the new scheme shortly.
- 1.37 Ofcom has initiatives underway to promote the provision of quality of service information. We have directed certain fixed voice providers to publish quality of service indicators which are published on an independent website [www.topcomm.org.uk](http://www.topcomm.org.uk), launched in July 2006. A review of the initiative is exploring suitable parameters to capture broadband quality of service. The mobile operators have commissioned independent drive round surveys measuring voice quality and geographic network performance, which began in August 2006 ([www.topnetuk.org](http://www.topnetuk.org)). Ofcom is also working with the mobile industry to develop customer service measures and suitable tests for data services
- 1.38 Just over a third of consumers in the fixed and mobile markets have ever switched suppliers. As a comparison, switching levels in mobile and fixed markets are similar to those in energy markets but lower than those for insurance services (where the annual renewal may stimulate switching).
- 1.39 However the data indicates that many customers who have not switched are still actively participating in the market. 40% of fixed-line customers and 36% of mobile customers have changed tariff packages with their current supplier at some stage. 53% of internet customers have changed their tariff or package with their existing ISP whereas only 28% have switched supplier.
- 1.40 Between 84% and 93% of those who have switched in each of the communications markets said it had either been very or fairly easy to change their supplier.
- 1.41 Despite these positive results, significant problems in switching suppliers are emerging for some services particularly in relation to customers switching broadband services. We believe it is vital that consumers can compare and change providers and products easily. Ofcom's aim is to establish consistent principles on customer migrations and switching across a range of communications services.
- 1.42 Ofcom is currently consulting on proposals to make it easier for broadband customers to change suppliers. These will set a new general condition which will require providers to ensure customers can obtain broadband service and switch providers with minimal disruption. This will include a requirement for suppliers to provide a Migrations Authorisation Code (MAC) on request. The MAC is needed for customers to be able to switch providers without loss of service during the transfer.

## Protection and concerns

- 1.43 The fourth and final area we consider is consumer protection, which includes analysis of complaints to Ofcom and key consumer concerns.
- 1.44 Consumer protection is a priority for Ofcom. Modern communications systems can provide ineffective or dishonest suppliers with easy access to consumers and new technologies can give rise to new forms of harm. Though desirable in encouraging choice and value for money, the growth of competition can sometimes contribute to consumer protection problems through unfair selling practices and participation by dishonest providers.
- 1.45 Ofcom has an important role in ensuring that communications markets are fair and that consumers are protected against harm. Our work aims to make sure that scams and unfair practices are prevented from occurring as far as possible and that when they do, we respond effectively.
- 1.46 The research for this report covers the levels and types of consumer complaints recorded by Ofcom's Contact Centre and other consumer bodies.
- 1.47 The top three complaints about telecommunications – fixed, mobile and internet - services made to Ofcom's Contact Centre relate to:
- Customers being transferred to another supplier without their permission ('slamming');
  - Problems experienced by customers switching broadband supplier due to the need for the Migrations Authorisation Code to proceed with the transfer; and
  - Customers not being able to take up broadband services because of the presence of a 'tag' or 'marker' on the line left by a previous supplier.
- 1.48 The main consumer complaints to Ofcom about broadcasting services relate to content which is outside the scope of this report. Details of our decisions in response to complaints about television and radio programme content are published separately on our web site at <http://www.ofcom.org.uk/tv/obb/>.
- 1.49 We have also asked consumers directly what concerns they have more generally about communication services. The main additional issues identified by consumers related to internet content and security, calls to fixed lines using automated calling systems ('silent calls') and telephone scams.
- 1.50 In response to these problems, we have adopted an increasingly vigorous approach to consumer protection, both actively enforcing existing regulations and implementing new measures to tackle new issues as they emerge. The actions which have been taken so far include:
- introducing tough new rules to combat mis-selling and slamming in respect of telecommunication services. We have enforced these rules with action taken against the worst offenders;
  - reducing the potential for silent calls and the distress they cause to consumers through the introduction of new rules and enforcement action in 2006; and

- improving the effectiveness of the regulation of premium-rate services by enhancing the ability of the regulator, ICSTIS, to take effective action against those involved in premium-rate scams.
- 1.51 We need now to reinforce our efforts to protect consumers from harm and to strengthen the culture of regulatory compliance within industry. We will make sure we take effective and speedy enforcement action against those who flout regulation. We will also make sure the rules for protecting consumers meet the challenges of the changing communications markets and the needs of consumers.
- 1.52 With internet protection, the responsibility for dealing with issues around accessing inappropriate content and protection against fraud lies mainly with other bodies such as the Home Office and Financial Services Agency. In June 2006 we published research which revealed the importance of effective industry self-regulation and consumer empowerment in addressing consumer protection issues on the internet. This research is intended to inform the current debate about the most appropriate approach to protecting consumers online as the European Commission takes forward proposals to revise the regulation of audio-visual content across Europe.
- 1.53 Ofcom's primary activities in this area have been around our work on media literacy. We are aiming to achieve a greater understanding of the levels of media literacy in the UK and encourage greater awareness of, and confidence and competence in, the use of new communications technologies.

## Conclusions and next steps

- 1.54 Our research indicates that competition and regulation are delivering significant benefits to consumers in terms of falling prices, increased satisfaction and greater range and wider availability of services. We will maintain our efforts to promote effective competitive markets across all communication services to ensure that consumers continue to benefit in this way.
- 1.55 Our regulatory principles state that we will operate with a bias against intervention, but with a willingness to intervene firmly, promptly and effectively where required. Over the last year we have increased our efforts on protection and empowerment issues – in particular around switching and misselling. The research confirms that we are right to identify these as priority areas for intervention and that progress has been made. We need now to continue and reinforce our efforts through our active enforcement programme and major policy projects.
- 1.56 We have a range of policy and research work underway which addresses issues around those living in rural areas, older people, children, disabled customers, those from ethnic minorities and customers with low-incomes. This research again shows that progress is being made but as technology develops and services converge, examining issues around the extent of the availability, take-up and use of services by all customer groups and around the importance of services for social inclusion will be another important priority for us.
- 1.57 We will also need to consider the implications of convergence and increased service bundling in terms of market complexity. The availability of different bundles of products (such a fixed telephony/broadband and fixed telephony/broadband/digital TV) can be attractive to consumers, not only from a cost perspective but also because of increased ease of use and single point of contact. However because each provider offers a bundle with slightly different characteristics, this can also mean consumers cannot easily move or change services, and find difficulty

comparing offerings. We will therefore aim to ensure that consumers have access to easy switching processes and comparative information.

- 1.58 We would welcome comments from stakeholders on these research findings and the consequent policy conclusions both in response to this document and to our forthcoming consultation on Ofcom's Annual Plan for 2007/8.

## Section 2

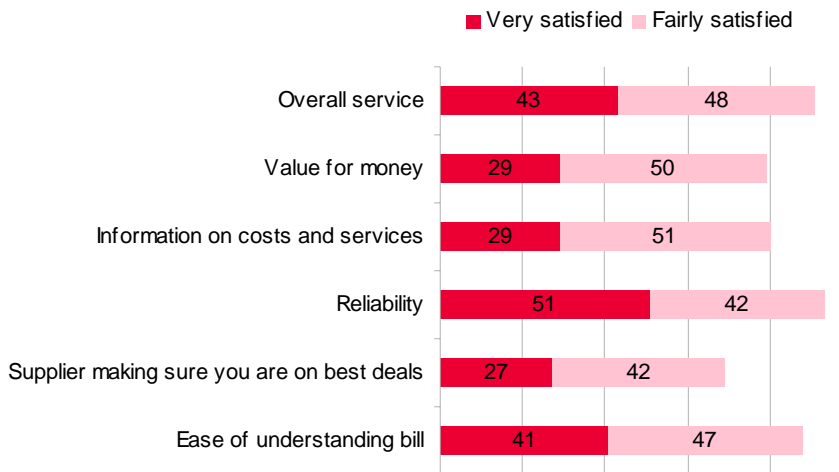
# Fixed and mobile telephone services

## Introduction

- 2.1 This section considers the issues raised by the research report in respect of fixed and mobile telephone services. It looks at pricing and satisfaction, range, access issues (availability and take-up of services) and consumers' engagement with the competitive market (awareness of suppliers and access to comparative information and switching). It concludes by reviewing data on consumer complaints and research on consumer concerns.
- 2.2 Ofcom believes that genuine competition in the fixed-line markets, at the deepest level of infrastructure, creates a virtuous circle of new investment in emerging technologies and innovation in services and price competition. This benefits consumers and helps to maintain the competitiveness of the UK economy as a whole and to attract investment capital.
- 2.3 In 2005 Ofcom completed its Telecoms Strategic Review setting a new regulatory framework for fixed line telecommunications. At its heart is a desire to bring about real equality of access to those parts of BT's network that its competitors cannot realistically replicate thus promoting competition between networks. Objectives relating to the consumer underlying this approach were:
  - to drive down prices and improve quality of service; and
  - to encourage more innovation and investment
- 2.4 BT Group plc agreed to offer legally binding undertakings under the Enterprise Act 2002 that implement 'Equivalence of Input' (EoI) and Ofcom accepted. Under EoI all communications providers – including BT Retail - purchase exactly the same wholesale products through exactly the same systems. EoI is currently being implemented in BT's network. The undertakings included the setting up of a new and operationally separate business unit – Openreach – to be responsible for BT's local access network. Openreach was established in January 2006 and deals exclusively with network operation and provision to third parties – including provision to BT's own retail services arm.
- 2.5 Alongside the implementation of the Telecoms Strategic Review, Wholesale Line Rental (WLR) has been a significant recent change in fixed-line service competition. Ofcom set the requirement for BT to provide WLR and worked with industry to develop the product over two years. WLR is available throughout the UK and allows consumers to choose from a range of competing providers for both their voice calls and line rental, all paid through a single bill. In December 2005 Ofcom confirmed that the WLR product met a series of criteria covering service standards, functionality and market impact.
- 2.6 The UK mobile sector have five network operators and a number of virtual network operators in the market. Ofcom's intervention in the market is limited and focused on specific consumer protection or market growth issues.

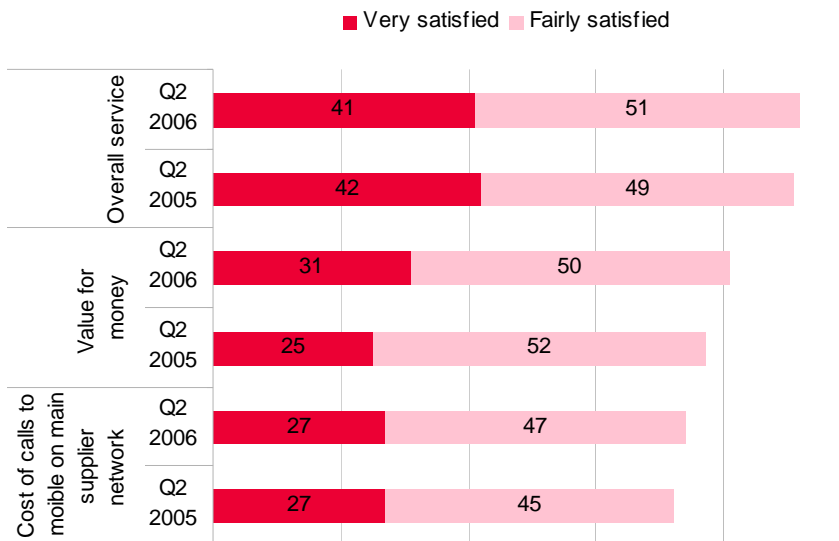
## Satisfaction levels

- 2.7 Satisfaction levels in the fixed and mobile markets have increased significantly since 2004. This has largely been driven by increased satisfaction with value for money. The rise in overall satisfaction levels brings levels in communications markets in line with banking and higher than those in the energy markets (gas and electricity).
- 2.8 The majority of fixed line consumers are satisfied with the overall service they receive (91%). A similar proportion of consumers (93%) are also satisfied with the reliability of service they receive. Satisfaction is lowest with ‘the supplier making sure you are on the best of their deals for your household’ at 69% .



**Figure 2.1** Satisfaction with main supplier of fixed line services

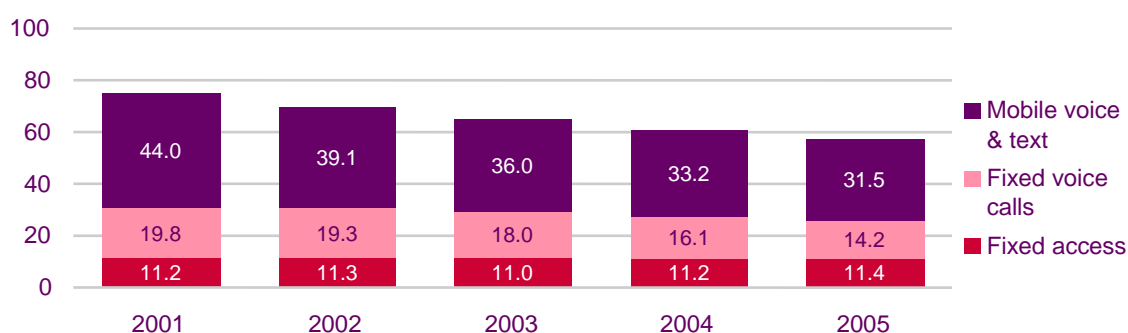
- 2.9 Nine in ten mobile consumers are satisfied with the overall service they receive, with four in ten very satisfied. Satisfaction is lower for value for money (81%) and cost of calls to mobiles on the main supplier network (74%)



**Figure 2.2** Satisfaction with main supplier of mobile services

## Price changes

- 2.10 Consumers have been benefiting from price reductions in the fixed and mobile telecoms markets over a sustained period of time. Competition and regulatory controls such as the setting of the mobile call termination rate have contributed to bringing down prices.
- 2.11 A household basket of residential telecoms services (comprising one fixed-line connection plus calls at 2005 volumes/line, two mobile subscriptions plus calls at 2005 volumes/subscription), has fallen in real terms to around £57 a month, from £75 a month in 2001. This trend has been given further impetus during 2006 by the introduction of bundled services including broadband, mobile and fixed-line.



**Figure 2.3 Real price of a basket of residential telecoms services. £ per calendar month (2005 prices)**

## Availability and Take-up

### Fixed lines

- 2.11 As a result of the Universal Service Obligation (USO) all households in the UK have access to a landline. The scope of USO is set by the Secretary of State for Trade and Industry in The Electronic Communications (Universal Service) Order 2003; Ofcom implements that Order, designating Universal Service providers – currently BT and Kingston Communications in the Hull area - and setting specific Universal Service conditions.
- 2.12 The research report shows that under the USO fixed line services over the public switched telephone network (PSTN) are available to 100% of the UK population. Additional connection charges apply when they are so remote that installation would cost over £3,400 ('the £3,400 rule'). Only eight customers faced excess connection charges in a three month period during 2005 in a sample reported by Ofcom out of a total of 291,219 residential connections by BT<sup>2</sup>; otherwise all households paid the same charge regardless of costs of supply.
- 2.13 Ofcom completed a review of the USO in March 2006. This confirmed that the requirement for the USO providers to meet all reasonable requests for connection to the network at a fixed location and the £3,400 rule. A new policy was introduced under which BT can waive the £3,400 rule in the case of vulnerable consumers.

<sup>2</sup> Section 6, Review of the Universal Service Obligation (USO) 14 March 2006  
[http://www.ofcom.org.uk/consult/condocs/uso/uso\\_statement/](http://www.ofcom.org.uk/consult/condocs/uso/uso_statement/)

- 2.14 The research report shows that around one in ten adults do not have a fixed line at home. The UK has slightly lower take-up than France, Germany and the USA, but higher than Italy and Japan.
- 2.15 While 3% of consumers in the UK said they were likely to get a fixed line phone in the next 12 months, 4% of adults said they didn't want a fixed line; 1% said they would like a fixed line but cannot get one with costs being given as the main reason. Most adults living in homes without a fixed line personally use a mobile phone (86%) and 95% have access to at least one mobile in their household.
- 2.16 The research also suggests that the costs of a line may be deterring some customers from having fixed line services. The main reason for owning a mobile instead of a fixed line is to control costs, or to avoid getting into debt. However, only 16% of adults currently using a mobile instead of a fixed line say this is because they cannot afford the connection charges or line rental.
- 2.17 In this regard, the USO mandates BT and Kingston to provide affordable voice telephone services to consumers with low-incomes through special pricing schemes. BT currently offers the Light User Scheme and In Contact which are aimed at providing affordable services for customers who make few calls. Ofcom's review of USO confirmed that a new scheme - *BT Basic* - with a reduced line rental charge will be introduced. It will be available for customers in receipt of Pension Credit, Income Support and Job Seekers Allowance and is scheduled to be introduced in 2007. Kingston has also introduced new schemes aimed specifically at customers in receipt of benefits. Ofcom will be monitoring take-up and reaction to these new schemes.

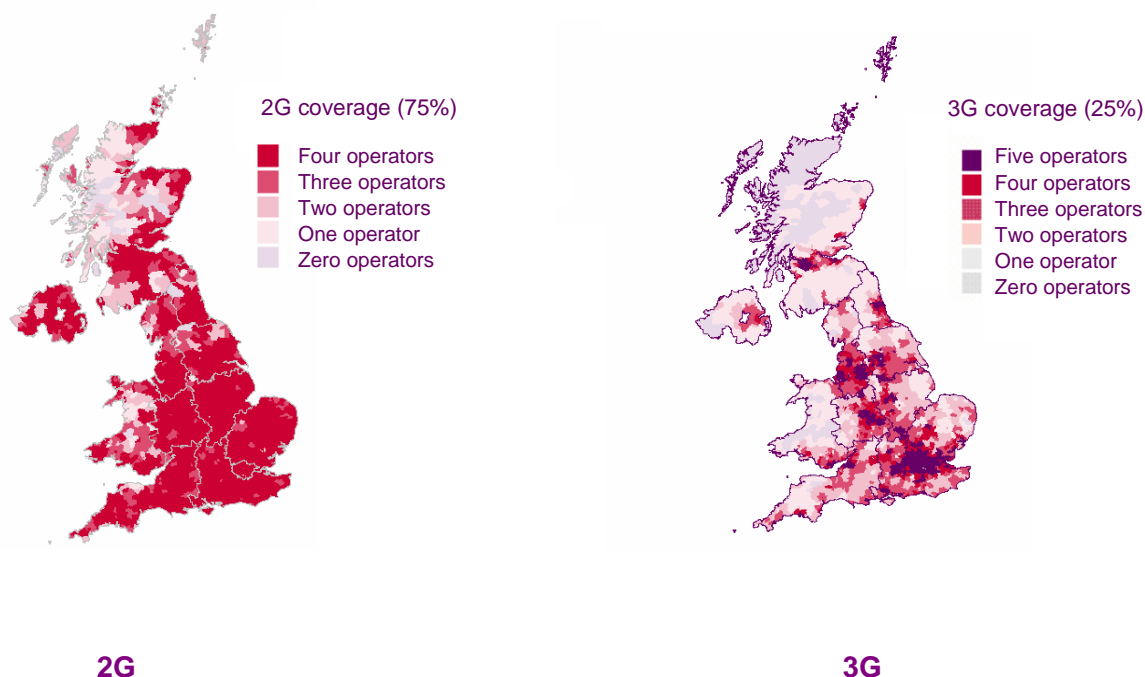
## Mobiles

- 2.18 Second generation (2G) mobile phone services are widely available across the UK – 99.9% of the UK population live within postal districts that have at least one operator with at least 75% area coverage and 94.6% of the UK population live within postal districts that have coverage by four operators. Rural areas report lower levels of coverage by all four operators. Fewer postal districts in the more rural areas of the UK have 2G coverage of at least 75% of the area by all four operators– including Scotland (64% of districts) and Wales (60.8% of districts).
- 2.19 Rollout of third generation (3G) mobile phone services has focused on more urban areas first. London, as the UK's most densely populated area, has the highest geographic coverage (in this case defined by the proportion of postal districts with at least 25% area coverage)<sup>3</sup>. Some 46.2% of postal districts in the UK had the defined level of coverage by at least four 3G operators and 90.5% of postal districts had such coverage by at least one operator.<sup>4</sup>

<sup>3</sup> See section 5.3.3 of Nations and Regions Research Report, April 2006 for further details on parameters for measuring 3G for the purposes of this research.

[http://www.ofcom.org.uk/research/cm/nations/nations\\_regions/nations\\_regions.pdf](http://www.ofcom.org.uk/research/cm/nations/nations_regions/nations_regions.pdf)

<sup>4</sup> Ofcom published a statement and consultation on 3G coverage obligations in July 2006 [http://www.ofcom.org.uk/consult/condocs/3g\\_rollout/3g\\_consultation.pdf](http://www.ofcom.org.uk/consult/condocs/3g_rollout/3g_consultation.pdf)



**Figure 2.4 Mobile phone coverage by number of operators**

- 2.20 At the end of 2005 around 80% of adults in the UK had a mobile phone. Our international comparison research shows that the UK has higher take-up rates than France, Germany, Ireland, the Netherlands, Sweden and the USA. Of the countries surveyed only Italy showed a higher number of mobile subscriptions.
- 2.21 Of the 20% of adults in the UK without a mobile relatively few (1%) said they were likely to get one in the next 12 months. 12% said they do not want a mobile - most of these stating they were satisfied using their fixed line. In Q2 2006 0.5% of UK adults had neither a fixed line nor mobile phone at home.
- 2.22 Consumers aged 65+ are significantly more likely to say they don't want a mobile - 45% compared to 12% average. The remainder are unsure whether or not they want a mobile phone.
- 2.23 The proportion of consumers who would like a mobile but cannot get one (involuntary non-ownership - 2%) are comparable to those in the fixed line market but did not vary significantly across demographic groups.

Ofcom's policy

- 2.24 Coverage obligations for 2G services were set in the mobile providers' licences that were issued under the Telecommunications Act 1984. These were met and exceeded by providers; no coverage obligations have been set under conditions of entitlement under the Communications Act 2003. Rollout obligations are in place for 3G services to reach at least 80% of the population by the end of 2007.
- 2.25 While the research shows that coverage levels are generally high, there are some rural areas where there is no or limited coverage. Providers are free to reach mast-sharing and inter-network roaming agreements on a commercial basis, subject to competition law. Moreover, national, regional and local government may consider

providing public funds to address shortfalls in coverage, working with the mobile providers subject to normal public procurement policy and state aid rules.

2.26 Nevertheless Ofcom recognises that while there are some commercial and public initiatives underway to address gaps in 2G coverage this issue is an important one and we are taking forward several initiatives:

- We will explore with mobile providers, government and other stakeholders the possibilities for enabling consumers to make emergency calls only (ie 999/112) by roaming on to other providers' networks when they are out of their home network's coverage.
- As part of our Digital Inclusion project, we will consider how mobile coverage in rural areas can be improved. This will include examining any technical, commercial and public policy issues that may be preventing coverage and how they might be addressed.
- We have formed a Joint Working Group with ComReg, the communications regulator in the Republic of Ireland, to address specific issues around 2G coverage and inadvertent roaming on the border between Northern Ireland and the Republic.

### **Access to fixed and mobile services by disabled customers**

2.27 Disabled customers have slightly below average take-up of fixed lines (88% compared with the average of 91%) but significantly above average take-up of mobile phones (91% compared with the average of 80%).

2.28 17% of disabled customers reported difficulties using a fixed line, compared with 9% of all customers. The difficulty most mentioned by all consumers in using fixed phones are hearing-related, in particular hearing the person on the other end of the line or hearing the phone ring. 29% of disabled customers reported difficulties using a mobile, compared with 17% of all customers. The most frequently mentioned difficulties with mobiles are navigating the phone's menu system to use different features, writing text messages, followed by difficulties hearing the person on the other end of the line, hearing the phone ringing and pressing the buttons on the mobile phone.

2.29 In carrying out our duty under the Act to further the interests of citizens and to consumers in communication markets, Ofcom must have regard to the interests of disabled people.

2.30 Under the USO Ofcom has required BT<sup>5</sup> to provide, and all providers to offer their customers access to, a text relay service enabling deaf and hard of hearing users to communicate. The UK is the only country where users of the text relay can obtain the service from providers other than the fixed incumbent, including mobile phone providers. In addition, this year we commissioned a study into the feasibility of additional, alternative relay services - including video relay and captioned relay - and we are now carefully studying its findings.

2.31 In the future as part of our reviews of the USO and in our wider work, we will continue to assert the principle of functional equivalence of access: that wherever practicable

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<sup>5</sup> Kingston Communications is designated as USO provider in the Hull area

disabled users should be able to access services which are functionally equivalent to the mainstream services they are excluded from.

## Consumer Empowerment

- 2.32 Consumers need to have the confidence, information and understanding required to enable them to make rational, informed choices and to seek the best deals from their current providers or by changing suppliers. This not only benefits them directly but helps secure the wider benefits of competition.
- 2.33 This section examines how consumer empowerment is operating in the fixed and mobile markets. We consider three aspects of consumer empowerment:
- awareness of alternative suppliers and services;
  - access to comparable information on prices and quality of services; and
  - ability to switch provider.
- 2.34 Active consumer behaviour is a crucial condition for healthy competition to exist in a market. By searching out offers in terms of price and quality, comparing them, switching between providers or negotiating a better deal with an existing provider, consumers can influence the market in many ways. Furthermore, some consumers play an important role in giving advice about services, providers, prices and quality to other consumers, enabling them to make better informed choices.
- 2.35 We believe there is a role for Ofcom in enabling consumers to make effective choices, particularly as the ability to compare and switch offerings becomes more complex as a result of service bundling and convergence. This could be achieved by encouraging suppliers to change the way they present information to their customers. Or it could mean Ofcom promoting intermediaries that provide price comparison information. In some cases – perhaps where more generic information about communications markets as a whole and opportunities for switching is required - Ofcom may sometimes be best placed to provide information itself.

### Awareness of suppliers

- 2.36 Awareness of fixed line suppliers has risen significantly in the last 18 months prompted by the launch of WLR services from providers such as Carphone Warehouse and the Post Office. Currently over half (54%) of fixed line customers are spontaneously aware of two or more suppliers available in their area. Nearly a fifth of fixed line customers now say they are aware of three or more suppliers which compares to just 6% at the end of 2005.
- 2.37 Mobile customers are more likely to be aware of multiple suppliers/networks than fixed line customers with 77% spontaneously aware of two or more alternatives and nearly two-thirds (62%) aware of three or more. Prompting consumers with the names of suppliers increases awareness of three or more to 87%. There has been little change in awareness levels in this market since last measured in Q4 2005.

### Access to comparable information

- 2.38 In the fixed market 80% of adults are able to mention spontaneously at least one place to go for trusted information. This rises to 85% in the mobile markets. The most frequently mentioned trusted source of information for consumers is friends,

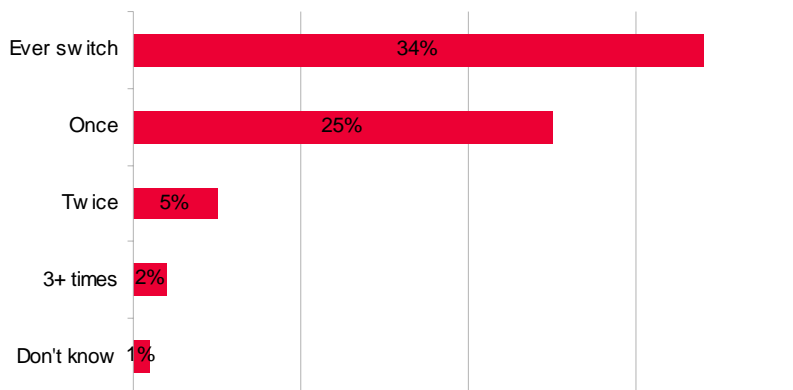
family and colleagues – mentioned by around 36% and 39% in the fixed and mobile markets. Suppliers and websites (including supplier websites) were considered trustworthy sources of information by a fifth and a quarter of consumers respectively.

- 2.39 Consumers say they find it easier to compare costs than to compare quality of service. 52% of customers in the fixed market and 61% in the mobile market find it very or quite easy to make costs comparisons; this falls to 43% and 51% respectively for quality of service.

## Switching telecoms suppliers

### Fixed line

- 2.40 Around one third of consumers have ever switched their fixed line provider, with 7% switching more than once, and 2% switching three or more times.
- 2.41 This is lower than other sectors, as over a third of consumers have switched suppliers in the electricity, gas and home insurance markets in the past two years. Switching appears to be highest in the home insurance market with 44% claiming to have switched in the last two years.



**Figure 2.5 Number of times consumer in the fixed line market have ever switched supplier**

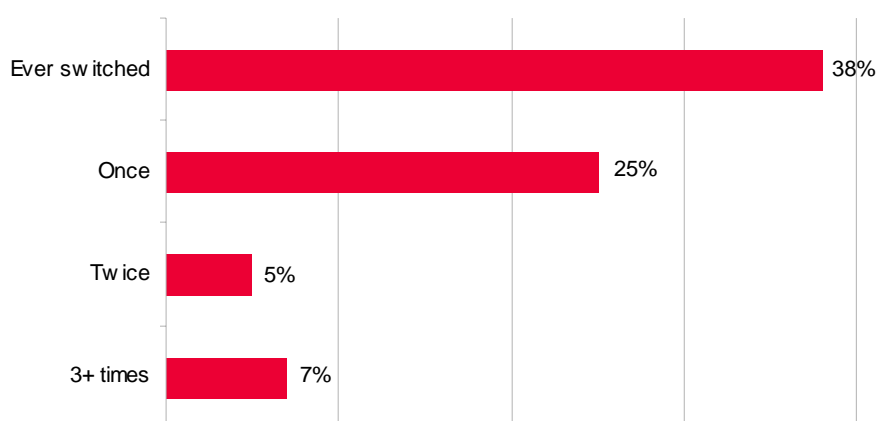
- 2.42 Consumers aged 45-64 years are the most likely to have switched (43%) compared with other age groups, followed by 25-44 year olds (36%). Consumers on higher incomes (£17.5k+) are more likely to have switched (40%) compared with those earning less than £11.5k (31%).
- 2.43 Looking at wider levels of participation two in five consumers have ever changed their fixed line tariff or package, with the majority of these changes made over 12 months ago. In comparison, relatively few have asked their main provider to match a deal – only 4% have asked their provider to do this.
- 2.44 Although the majority of consumers are unlikely to be active in switching or amending their fixed line arrangements in the next 12 months, there are some areas of activity where a significant minority is likely to act:

- 39% are likely to look at deals with other suppliers; and
- 41% are likely to renegotiate their package and 36% are likely to change to another deal from their current supplier in the future.

2.45 91% of customers who had switched their fixed line service said it had either been very or fairly easy to change their supplier. There has been little change in this since last reported in early 2005.

## Mobile

2.46 Over a third of mobile consumers have ever switched mobile providers. Consumers are more likely to have switched longer than 12 months ago (23%) than within the last 12 months (15%). Consumers on a contract are more likely to have ever switched than pre-pay consumers (50% against 32%).



**Figure 2.6 Customers who have ever changed provider in the mobile market**

2.47 Unlike the fixed line market, the incidence of switching mobile providers decreases with age, from 54% among 15-24 year olds through to 17% among 65+ year olds. Switching also increases with income with 35% of those earning less than £11.5k having ever switched compared with 44% of those earning £30k or more. In the mobile phone market switching handsets appears to be the most likely change, with over half saying they are likely to replace their current handset and 40% saying it is likely a change in handset will prompt a change in network provider.

2.48 93% of customers who had switched their mobile service said it had either been very or fairly easy to change their supplier. There has been little change since last reported in early 2005.

2.49 Similar to the fixed line market, there is interest in looking at the best deals available (40%) and re-negotiating the existing package (37%).

## Ofcom's policy

### Awareness of suppliers

2.50 The market research suggests that in general, the majority of consumers are aware of alternative providers of communications services. In those areas where knowledge and understanding is lower we believe growing competition will lead naturally to an increased awareness of alternative providers. We do not consider there is a strong case for any regulatory intervention in this area.

### Price comparisons

2.51 Ofcom has an obligation under Article 21(2) of the Universal Service Directive (USD) to encourage the provision of information to enable end-users, as far as appropriate, to make an independent evaluation of the cost of alternative usage patterns. This provision is reflected in General Condition 10.1 which among other things requires providers to publish clear and up-to-date information on prices and tariffs.

2.52 In addition, in 2002 the 'PASS' scheme was introduced enabling us to accredit websites which compare the prices and services of different suppliers and provide impartial and accurate information.

2.53 In the Consumer Policy consultation we recognised that communications markets have changed significantly since the PASS scheme was established with a far greater range of services and providers to choose from. We also acknowledged that consumer awareness of the scheme was low and more needed to be done to promote the scheme and add value to accreditation. We concluded that it was appropriate to conduct a full review of the scheme and asked for stakeholders' views on four options:

- Option 1: Withdraw the PASS scheme;
- Option 2: Maintain the scheme as it stands
- Option 3: Retain, review and relaunch; and
- Option 4: Establish closer links with a single price comparison provider.

2.54 Ofcom considers that Option 3 is the best option to pursue. We believe that a new scheme, offering consumers quality-assured price comparison services for both individual and bundled communications services, - which is widely promoted by Ofcom and which consumers are advised to use - would be the most effective means of ensuring wide availability of independent price comparison information. This approach was favoured by the majority of respondents to the consultation who identified significant value in the provision of quality-assured, independent comparative information on price.

2.55 One of the key objectives of the new scheme is to address the increased complexity resulting from convergence and service bundling. Consumers have demonstrated considerable interest in the emergence of bundled services offering fixed services together with a combination of mobile/broadband/digital TV. These products offer lower prices, a single bill and new innovative services, giving consumers the opportunity to purchase services that are more tailor-made. But it also means that consumers face an increase in complexity – not just in the number of communications services they buy but also in the complexity of each individual

service. Also, because each bundle available has a different set of characteristics this may also lead to difficulties in comparing offerings. We will extend accreditation to and encourage the development of services which allow consumers to compare service bundles.

- 2.56 We will be publishing the details of a new accreditation scheme for price comparison providers alongside the statement on the Consumer Policy consultation in 2006.

### Quality of service comparisons

- 2.57 In a competitive market there are clear incentives for providers with a high quality of service to let consumers know about it. There is little economic incentive for those providers offering a low quality of service to produce timely and accessible comparable quality of service information. If such information is not widely available, then consumer awareness of its benefits is likely to be understated.
- 2.58 Ofcom has encouraged the market to provide information on quality of service indicators for fixed voice and mobile voice through an industry-led approach in which network operators and service providers define and manage the scheme and collectively publish indicators for use by consumers. Our aim is to ensure that information provided for consumers is objective, reliable, timely and up-to-date.
- 2.59 Initiatives for fixed and mobile services are underway. Ofcom has required all fixed line providers with at least £4 million net revenues and 100 million minutes of voice calls handled to end users per quarter to publish objective and comparable quality of service indicators.
- 2.60 Fixed-line providers launched their website [www.topcomm.org.uk](http://www.topcomm.org.uk) in July 2006. The site provides comparable information on service provision, fault incidence and fault repair, complaints processing and upheld billing complaints. The data must be approved by Topcomm's independent auditor before it is published, who ensures that all participants are interpreting the scheme requirements and measurement definitions in a standard and comparable way.
- 2.61 In a separate self-regulatory initiative, some mobile network operators have commissioned independent mobile network voice quality surveys across the UK. The results for the O2, Orange, T-Mobile and Vodafone networks have been published since July 2006 on an independent website [www.topnetuk.org](http://www.topnetuk.org) which is updated on a weekly basis.
- 2.62 Ofcom is also working with the mobile network operators and other mobile service providers to develop a set of comparable indicators relating to customer service. The aim is to extend both the range of quality of service information provided to consumers and the number of providers participating in the initiative.
- 2.63 Ofcom will continue to monitor consumer attitudes and behaviour with respect to quality of service information and switching. This will include an assessment of the impact of the information which the industry will provide and how it is used and valued by residential and SME consumers. We will also monitor how the needs of vulnerable consumers are met by the two schemes.

### Ability to switch

- 2.64 Our research shows that around a third of consumers have ever switched their fixed or mobile supplier. Although the majority of consumers have not switched, they are

'participating' in other ways which have a positive impact on competition in telecoms markets, for example by negotiating better deals with their current supplier and keeping an eye out for alternative offers.

- 2.65 We believe there is a role for Ofcom in enabling consumers to make effective choices where information gaps are identified. While we do not believe that Ofcom is well placed to produce and provide complex comparative information itself, we do have a role in facilitating the provision of this information where the market is not already doing so.
- 2.66 Ofcom may be best placed to provide other types of generic, impartial information - such as general advice about communications markets as a whole and opportunities for switching. This information would not only be useful for individual consumers but could also be used by intermediaries – such as the media and consumer groups - to help generate greater public awareness of the benefits of searching and switching.
- 2.67 Ofcom has already undertaken significant steps to boost consumer awareness in this area with the launch of a public information campaign - 'It's Your Call'. The information campaign has sought to encourage consumers to understand the choices available in the competitive market. Managed by Ofcom and funded by BT with a contribution from Ofcom, the campaign ran from July 2006 with national and regional newspaper and poster advertisements. We have also launched a new Consumer Advice Portal on our web site which aims to provide consumers with information on various aspects of the markets we regulate such as what to consider when choosing a new provider.
- 2.68 The vast majority of those consumers who have switched say it was very or fairly easy to change their supplier. These are positive results. However we recognise that problems in switching suppliers are emerging for some services particularly as more consumers take up bundles of services which can make changing providers more complex. This means the underlying processes for suppliers will need to become increasingly complex if the switching experience for customers is to remain simple. Through Ofcom's work on Migrations, Switching and Mis-selling we are aiming to establish consistent principles on customer migrations and switching across a range of communications services (see Consumer Protection below).

## **Consumer Protection**

### **Ofcom's approach to protection**

- 2.69 Communications markets are developing rapidly, with competition promoting greater innovation and diversity in service offerings. Yet while this is delivering significant benefits to consumers, increased competition, the openness of markets and the development of new services can create conditions in which scams and unfair practices develop quickly. Tangible harm to consumers typically takes the form of financial loss, inconvenience and anxiety, but consumers may also lose trust and confidence in legitimate markets. As a result, the existence of scams and unfair practices may adversely affect the business of those providers play by the rules and so undermine competition.
- 2.70 We fully appreciate the importance of our role in ensuring that communications markets are fair and that consumers are protected against harm. Consumer protection is a clear priority in Ofcom's Annual Plan. Our work aims to ensure that as far as possible scams and unfair practices are prevented from occurring, but that when they do, we respond effectively.

- 2.71 Major elements of our work involve both preventative measures and enforcement activity. We will make sure the rules for protecting consumers meet the challenges of the changing communications markets and the needs of consumers. We will take tough action against those who flout regulation.
- 2.72 The rest of this section concentrates on our evidence of complaints and the findings of our research on consumers' concerns in communications markets. Our consumer policy review statement will contain more detail about our consumer protection strategy

### **Consumer complaints**

- 2.73 While complaints only provide a partial picture of consumer detriment in markets, the issues that consumers report to Ofcom's Contact Centre do provide valuable evidence of unfair practices in the markets we regulate.
- 2.74 The top three complaints to Ofcom's Contact Centre about fixed and mobile telephony in the past year have involved consumers being:
- transferred to an alternative provider without the consumer's permission ('slamming');
  - ignored by customer service staff; or
  - charged for a cancelled service.

### **Consumer concerns**

- 2.75 The Ofcom Consumer Panel has been tracking the levels and types of concerns that consumers say they have in each of the fixed line, mobile, internet and digital TV markets since 2004. The latest survey, published in June 2006, indicated that all markets have seen a rise in levels of concern – although to a slightly lesser extent in the mobile market.
- 2.76 When asked to identify their main concerns in the fixed market, the cost of services came out as the chief consumer concern. One in four customers said they were concerned about cost. The second most mentioned concern related to nuisance or unwanted (pre-recorded) calls, including cold-calling and sales calls.
- 2.77 Our own research this summer found that when consumers were prompted with a list of potential issues of concern, they were mostly worried about:
- Misselling/Slamming;
  - Silent calls (which is explained in paragraph 2.84);
  - Sales and marketing calls to landlines;
  - Becoming a victim of a telephone scam; and
  - Children accessing adult content through mobile phones.
- 2.78 We discuss below each of complaints and concerns next and our response to them. In doing so, we recognise that a further implication of new converged and bundled

services entering the market might be a greater scope for scams if consumers remain insufficiently aware of the operation of new services.

### **Misselling/Slamming**

- 2.79 Ofcom is firmly committed to preventing problems due to the mis-selling of telecoms services.
- 2.80 We introduced new rules in May 2005 – replacing voluntary arrangements - which required all providers of fixed-line telecoms services to residential consumers and SMEs to establish sales and marketing codes of practice that are consistent with Ofcom guidelines. These guidelines aim to ensure that consumers are protected against irresponsible sales and marketing techniques.
- 2.81 We have pursued an active enforcement programme to monitor and raise the level of compliance in the industry with these rules. To date, Ofcom’s approach has involved direct enforcement against the worst offenders – action has already taken in five cases and an ongoing dialogue with the rest of the market to understand best practice and to continue to drive compliance. We are continuing to maintain the pressure to reduce mis-selling which, in our view, still remains too high.
- 2.82 The first 12 months of our enforcement programme have seen reductions in the numbers of complaints about slamming/ mis-selling reported to Ofcom’s Contact Centre. Other measures of mis-selling and slamming of fixed-line telecoms services show a less marked downward trend. This is particularly the case for the use of ‘cancel other’ – this is a function which enables existing providers to cancel an order that has been placed by an alternative provider where the customer has allegedly been slammed.
- 2.83 We will examine to what extent each of these separate measures – that is, Ofcom’s Contact Centre data and providers’ ‘cancel other’ reports - represents a true reflection of levels of mis-selling across the industry and, specifically, what the underlying reasons are that the trends are so different across these two measures. Ofcom intends to commission independent research into reported levels of mis-selling and slamming. Ofcom will take firm action where we see evidence of continuing abuse.

### **Silent calls**

- 2.84 Silent calls cause annoyance and anxiety to consumers. The most common cause of silent calls is when automated calling systems (“diallers”), used by call centres for telemarketing, market research, debt collection and other purposes, generate more calls than the available call centre agents can manage. If an individual answers a call and no agent is available, the dialler will terminate the call, resulting in silence on the line.
- 2.85 Sections 128 to 130 of the Act give Ofcom the power to take action against persons or companies who persistently misuse an electronic communications network or service in any way that causes or is likely to cause unnecessary annoyance, inconvenience or anxiety. On 1 March 2006, Ofcom published a revised statement of policy on persistent misuse which included new measures intended to clamp down on the nuisance that silent calls cause. The Government also increased the maximum penalty that Ofcom can impose on organisations that breach sections 128 to 130 of the Act, from £5,000 to £50,000.

- 2.86 Ofcom issued notifications under section 128 on 3 November 2006 to Carphone Warehouse plc, Brakenbay Kitchens Ltd, Space Kitchens Ltd and IDT Direct Ltd (trading as Toucan). After investigation Ofcom has concluded that there are reasonable grounds to believe that each of these four companies have engaged in persistent misuse of an electronic communications network or services in a way that causes annoyance, inconvenience or anxiety to consumers. This conduct contravenes section 128(5)(a) and section 128(6)(a) of the Act. The notifications give each of the four companies until 6 December 2006 to make representations to Ofcom.

### **Unwanted sales calls**

- 2.87 Customers have a legal right – embedded in the Privacy and Electronic Communications Regulations 2003 – not to receive unwanted sales calls. They can avoid unwanted calls in two ways. Firstly, by advising a company making direct marketing calls that they no longer wish to receive such calls. Secondly, by registering their telephone number (for free) with the Telephone Preference Service (TPS). The TPS maintains a register of people who do not wish to receive direct marketing calls. There are over 12.5 million telephone numbers registered with the TPS – this is roughly equivalent to about half the households in the UK.
- 2.88 The TPS operates under a contract with Ofcom. It is unlawful to make a direct marketing call to a person who has indicated that they do not wish to receive such calls. Enforcement is primarily the responsibility of the Information Commissioner's Office and Ofcom is working closely with the Information Commissioner's Office on its enforcement activity against those organisations which call numbers registered on the TPS database.

### **Telephone scams**

- 2.89 Telephone scams typically involve some form of intentional misleading, fraudulent or inappropriate activity. They can lead to financial harm and cause considerable distress for consumers. Taking effective enforcement action against rogue providers and helping customers protect themselves against scams are priorities for Ofcom.
- 2.90 Enforcement actions pursued by Ofcom on scams include imposing fines totalling £50,000 on Telecom Billing Services Ltd (TBS) for failing to provide the information required by Ofcom in the course of its investigation into unsolicited text messages inducing telephone calls to adult content services.
- 2.91 Effective enforcement will help discourage rogue providers from entering the market. Yet it would be unrealistic to assume that scams will never occur, however successful our enforcement activity. That is why we are committed to working with other regulators to tackle and prevent scams and to review how we can best contribute to increasing consumer awareness of new scams, both through the information we provide to consumers directly and through intermediaries, such as the media. The consumer policy review statement will provide more detail about this work.

### **Adult content on mobiles**

- 2.92 As explained above, our research prompted consumers with a list of potential issues on which they might be concerned. The research indicated that if children could access adult content on mobiles, this would be a concern to respondents. The issue did not register as a spontaneous concern for consumers.

- 2.93 Other stakeholders play significant roles in this area. This includes self-regulatory initiatives, Government-led task forces and action by consumer groups. For example:
- The mobile providers operate a joint code of practice, established in 2004, to prevent children accessing adult content, gaming and other unsuitable material; and
  - A Home Office task force on child protection on the internet has developed best practice guidance. Mobile providers are active members of this group.
- 2.94 We are reviewing our market research data on children and are considering whether there is a need for Ofcom to contribute to existing initiatives in this area.

### **Customer service**

- 2.95 Our complaints data and consumer concerns research highlight issues around customer service, including problems with consumers' complaints being ignored by providers or consumers being charged for cancelled services.
- 2.96 Most telecommunications providers are required to publish a complaints code of practice that has been approved by Ofcom and to provide access to an alternative dispute resolution (ADR) service. When consumers have problems with customer service, they should in the first instance follow the company's complaints procedure and if this does not resolve the problem, refer the case to the ADR service.
- 2.97 Ofcom has approved two ADR schemes – the Office of the Telecommunications (Otel) and the Communication and Internet Services Adjudication Scheme (CISAS). Ofcom completed a review of the ADR schemes in December 2005 and identified several shortcomings in the overall complaints handling process. A key finding was that some communications providers appeared not to handle complaints effectively. Given that the effectiveness of ADR (intended as dispute resolution as a last resort) is largely dependent on the way in which complaints are handled initially, Ofcom's plans include ensuring that communications providers:
- correctly signpost complainants to ADR for example on bills;
  - record and monitor complaints accurately so that consumers are directed to ADR at the right time; and
  - issue a 'deadlock' letter whenever the provider decides that a complaint cannot be resolved. Complainants should not be made to wait for twelve weeks as a matter of course before being referred to ADR.
- 2.98 Membership of both of both schemes continues to increase: growing from 196 providers in 2004 to 413 in 2006. The main source of complaint remains billing/charging and customer service issues. 70% of complainants to Otel and 63% of consumers using CISAS were either satisfied or very satisfied with the service provided in 2005/06.
- 2.99 We are currently carrying out further research with consumers to establish how effective the processes are. We will publish our findings in 2007.

## Premium-rate services

- 2.100 Although not giving rise to significant levels of complaints or concerns for customers in this year's research, regulation of premium rate services ('PRS') is an important area of consumer protection work for Ofcom. PRS offer information or entertainment which is charged to a customer's phone bill. Consumers can access these services in a number of ways – by landline or mobile, by fax, on interactive TV and on the internet.
- 2.101 During 2004, Ofcom and ICSTIS, the premium-rate regulator experienced very significant increases in complaint and enquiry levels resulting largely from problems with premium rate internet diallers. As a consequence, Ofcom undertook an urgent review of the regulatory framework for PRS in order to assess whether consumers were adequately protected from the potential for consumer harm.
- 2.102 The changes to the regulatory regime resulting from the review included:
- an increase in the maximum fine for breaches of the ICSTIS Code to £250,000;
  - a requirement for PRS using internet diallers to have prior permission from ICSTIS before introducing the service;
  - requirements for all terminating communications providers not to pass any funds to PRS operators for a 30 day period; and
  - improved monitoring and information sharing in order to allow early identification of problems so that ICSTIS is able to act more quickly against abusive services.
- 2.103 Taken together these measures have led to a large drop in the overall incidence of premium rate scams, and the most recent ICSTIS complaints data shows a 66% fall in the number of complaints received by ICSTIS in 2005 compared to 2004.
- 2.104 Regulation needs to keep pace with technological and societal developments, and accommodate new services, in order to ensure that the balance between the need for consumer protection and the need to ensure that investment and innovations are not stifled by over-regulation remains appropriate. We have this year begun a review of the scope, purpose and effectiveness of PRS regulation to consider what and how services should be regulated in the future. Ofcom intends to publish a consultation document in the first half of 2007.

## Section 3

# Internet

## Introduction

- 3.1 This section considers the issues raised by the research report in respect of narrowband and broadband internet services. It looks at pricing and satisfaction, access issues (availability and take-up of services) and consumers' engagement with the competitive market (awareness of suppliers and switching). It concludes by reviewing data on consumer complaints, research on consumer concerns and issues around Internet content.
- 3.2 Ofcom has a number of responsibilities in relation to the internet. We oversee the wholesale and retail markets for internet connectivity. We have a role in encouraging audiences to connect to the internet and in helping them learn how to manage the risks to which they are exposed when online, which arises from our duty to promote media literacy. We therefore have a clear interest in the protection of consumers from harm when they use the internet.
- 3.3 The last two years have seen significant changes in the provision and use of internet services. The number of customers using broadband to connect to the network overtook those using narrowband connections early in 2005. In addition local loop unbundling (LLU) began a period of significant growth. LLU essentially entails an alternative telecoms service provider placing equipment in a BT exchange which enables that provider to take over from BT the operation of the local line between that exchange and the premises of any user on the exchange. LLU allows providers to use different technologies from BT, which can enable broadband services at higher speeds.
- 3.4 Up until mid-2005 LLU growth in the UK was relatively slow. A number of regulatory and industry changes took place in 2005:
- there were ongoing improvements in products and systems facilitated by the Office of the Telecommunications Adjudicator (OTA);
  - a 'bulk migration' process was introduced which allowed providers to migrate more easily from BT's wholesale broadband products;
  - there were improvements in the quality and performance of LLU alongside reductions in wholesale prices; and
  - BT began to implement the undertakings following the Telecoms Strategic Review – referred to in section 3 - to provide equivalent access to services to its competitors as it does to other parts of BT.
- 3.5 During 2005 a number of service providers started to offer services through LLU and take-up gathered pace – by the end of March 2006 there were 360,000 unbundled lines representing growth of over 70% in the first three months of the year. By the end of June 2006, this number had increased further to 580,000. On 3 November the OTA reported that the number of unbundled lines was about to exceed one million.<sup>6</sup>

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<sup>6</sup> <http://www.offta.org.uk/otaupdate20061103.htm>

3.6 Increased competition and lower equipment costs have led to a continuing decline in broadband prices. In addition, providers such as Carphone Warehouse and Orange began to bundle broadband with other services (such fixed line, calls and television). In terms of speeds, 'up to 8Mbit/s' has become a standard offering from the majority of providers.

### Satisfaction with internet services

3.7 The research report shows that 91% of internet customers are satisfied with their overall service. Satisfaction in this market is comparable to other telecoms services and to the levels of satisfaction for current account banking. It is better than the levels reported for gas and electricity markets (84% and 80% respectively).

3.8 There are relatively similar levels of satisfaction across most aspects of service. Narrowband customers are less satisfied with speed (61%) compared with broadband customers (90%) but are equally as satisfied with other aspects of their service as broadband customers.

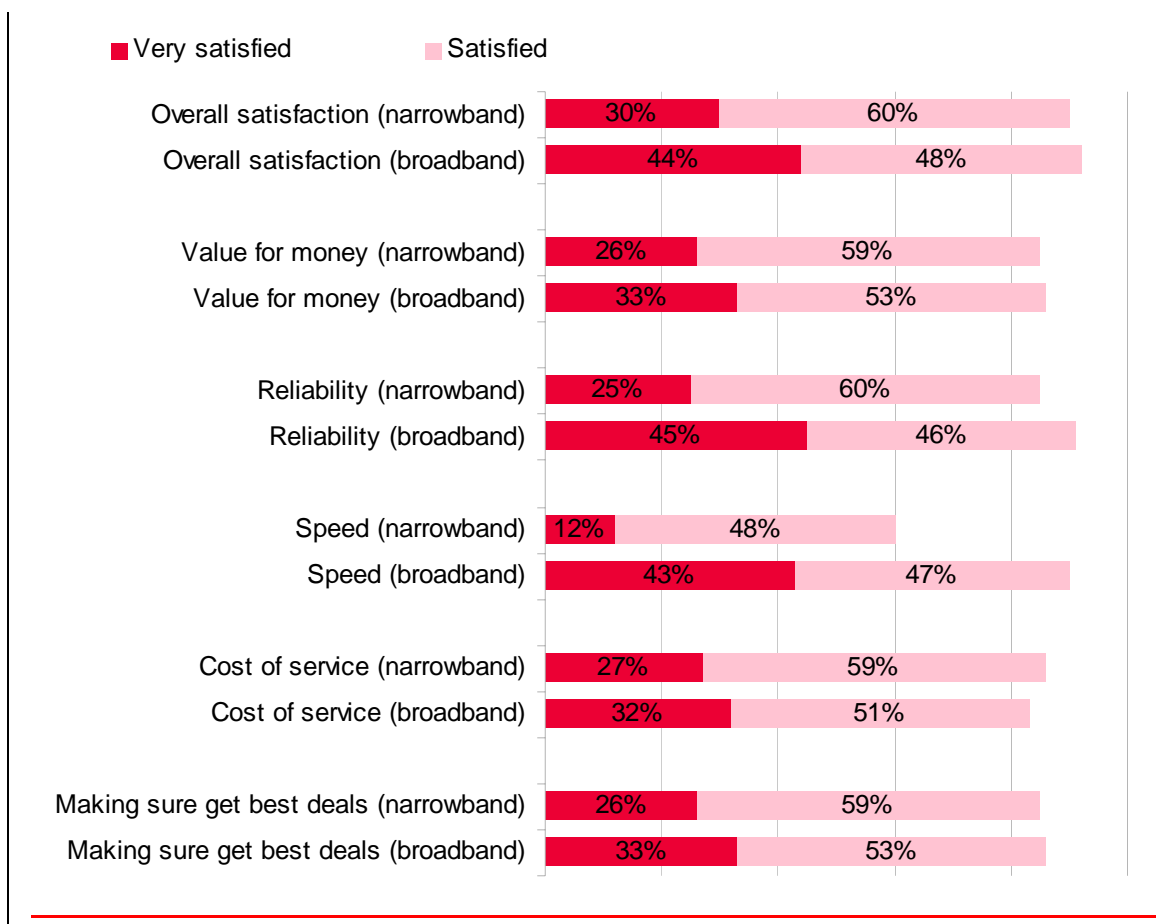


Figure 3.1 Satisfaction with aspects of internet service by connection method

### Range

3.9 The range of broadband services available to consumers has continued to increase. In 2002 the most common broadband speed was 512kbit/s. Now speeds of 2Mbit/s,

8Mbit/s, 10Mbit/s and 24Mbit/s are often options available, depending on the customers' distance from the exchange or the quality of the network. The average connection speed is now around 2Mbit/s.

## Pricing

3.10 The average monthly cost of 1Mbit/s broadband access halved between 2004 and 2005 from £30 to £15. Recent developments, including the introduction of 'free broadband' bundled with other services, would seem to indicate that prices may continue to fall. However, the potential impact to consumers of maximising price reductions are longer contracts and increased complexity of comparing deals with other suppliers due to price bundling with other services

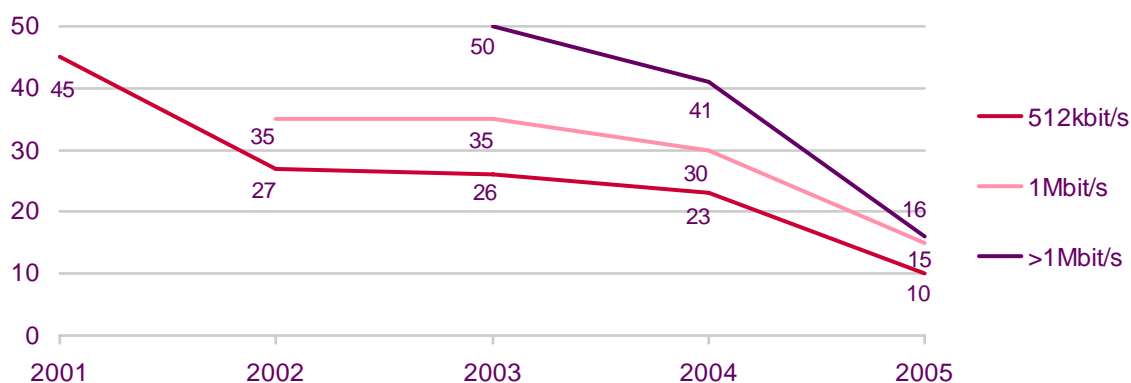


Figure 3.2 Comparison of average broadband prices over time

## Access

- 3.11 There are two main connection methods for households to receive broadband services: DSL (digital subscriber line) over a standard copper telephone line connected to a DSL-enabled exchange, and cable (via the cable operators' hybrid fibre-coaxial (HFC) networks). Broadband satellite and wireless broadband offer alternative sources of broadband in some parts of the UK.
- 3.12 BT data from January 2006 shows that 99.9% of premises in the UK are connected to broadband-enabled exchanges. However, some premises within these exchange areas are not suitable for delivery due to local technicalities such as distance from the exchange or poor quality of networks. BT indicates that, taking these factors into account, its network has 99.6% coverage of DSL broadband at minimum speeds of 512kbit/s<sup>7</sup>. 45% of UK homes are passed by cable broadband.
- 3.13 Figure 3.3 shows the percentage of premises within each of the UK's nations and regions that have digital cable available, the percentage connected to a DSL enabled exchange, and the percentage with LLU available.

<sup>7</sup> <http://www.btplc.com/Thegroup/Industryanalysts/Industryanalystspresentations/BBintheixednetwork.pdf>

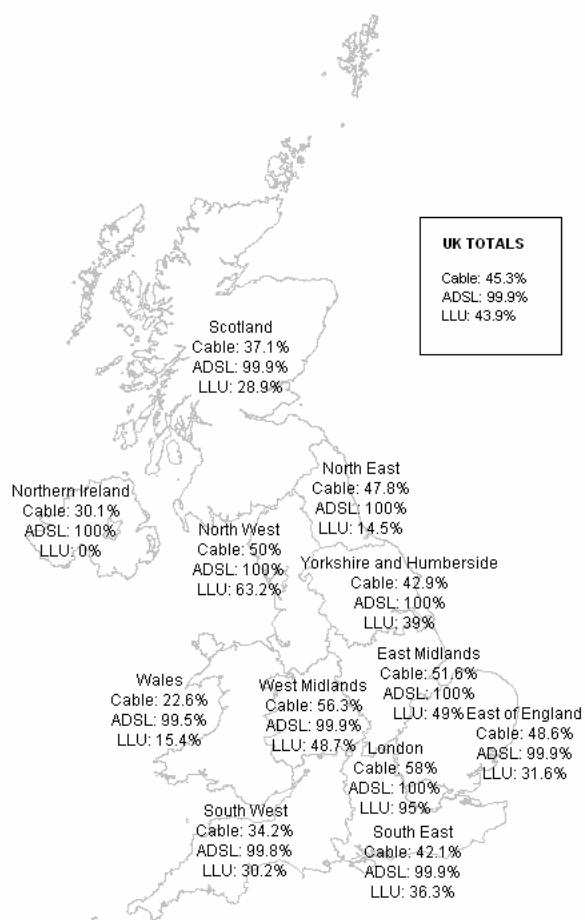


Figure 3.3 Broadband availability - DSL, digital cable and LLU

3.14 Individual PC ownership has gradually increased since 2004. However ownership remains lowest amongst homes with an average income of less than £11.5K and amongst the over 65s. The percentage of consumers connecting to the internet has increased since 2005 after being stable for two years.

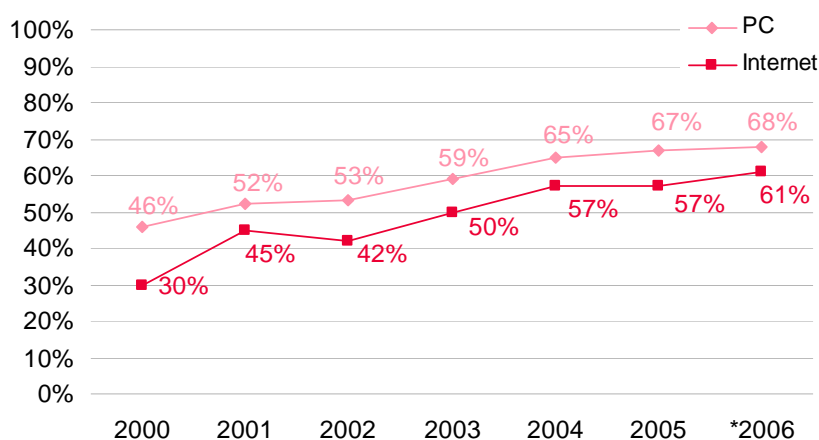
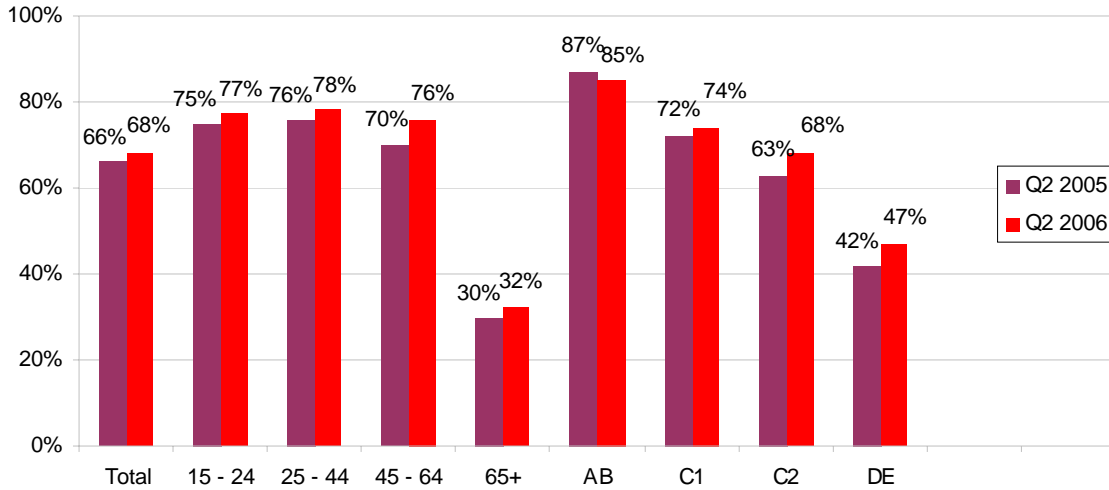


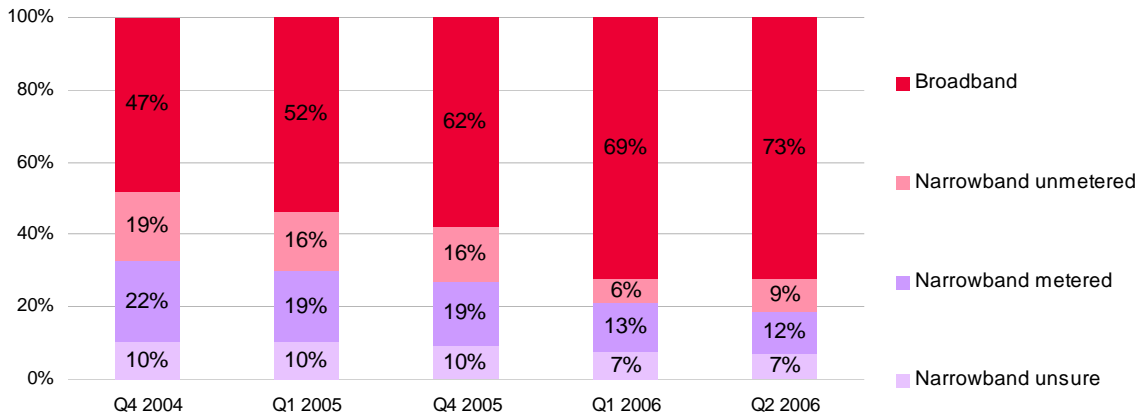
Figure 3.4: Take-up of internet services



**Figure 3.5 : Age and socio-economic profile of PC owners**

3.15 All age groups have experienced increases in internet take-up over the past year. The largest increase has been amongst those aged 15-24 and amongst the socio-economic group C2. The low-take up by the over 65s group reflects the low levels of PC ownership in this group.

3.16 Currently 72% of internet homes use a broadband connection. Most of this growth is migration from narrowband packages.

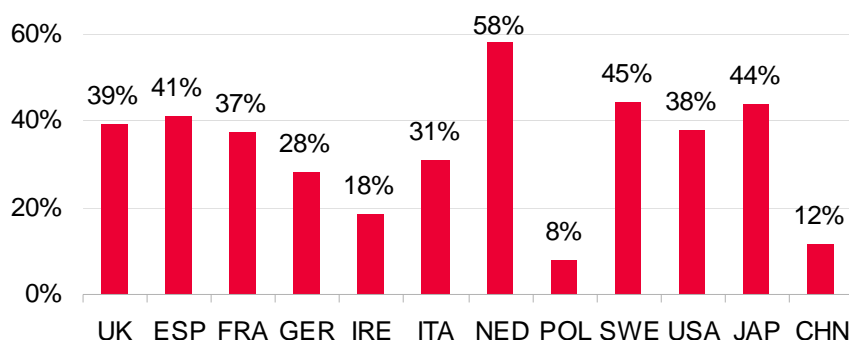


**Figure 3.6 : Trends in internet connection method**

3.17 Of those who have internet connections, take up of broadband is lowest among the 65+ age group. However, over the last year broadband ownership amongst older internet customers has increased significantly – from 28% to 48%.

3.18 While lower income and DE socio-economic groups are less likely to own a PC and therefore less likely to have internet at home – those with internet are as likely as average to use a broadband connection.

- 3.19 Amongst consumers aged under 65 with a disability, PC ownership, internet and broadband ownership is broadly similar to the UK average.
- 3.20 Comparing take-up in the UK with other countries, the UK is around the average for the countries included in the analysis. In 2005 the UK's connections were slightly ahead of the US (38%) and France (37%), and significantly ahead of Italy and Germany. However, the UK levels were lower than Japan and the Netherlands.



**Figure 3.7 Broadband connections per 100 households (2005)**

## Ofcom's policy

### Availability

- 3.21 In carrying out our duty under the Act to secure the availability throughout the UK of a wide range of electronic communication services, Ofcom has to have regard to the desirability of encouraging the availability and use of high speed data transfer services throughout the UK. We are seeking to carry out this duty primarily through competition and spectrum allocation policies.
- 3.22 Our view is that greater competition in the fixed line telecoms market, at the deepest level of infrastructure, creates new investment in emerging technologies and innovation in broadband services and price competition. We are looking to achieve this by ensuring access to BT's local loop on a wholesale level and through LLU. The developments described at paragraph 3.3 above, in particular the implementation of BT's undertakings to provide equivalent access, should continue these trends in extended networks and increased competition.
- 3.23 In terms of Ofcom's spectrum allocation policy, the release of spectrum may allow the opportunity for wireless broadband to be provided in rural areas. Ofcom will be releasing a significant amount of spectrum which could be suitable for this use over the coming years. In particular, wireless broadband has been identified as a potential use for both the 2.6GHz spectrum band and the "digital dividend" spectrum band (470-862MHz).
- 3.24 In addition, Ofcom is currently consulting on options to increase the allowable power levels for certain wireless devices in certain geographic areas which may facilitate the development of services such as higher speed broadband to rural communities.
- 3.25 In November 2005, Ofcom began the Digital Dividend Review. The project is examining the options arising from the release of spectrum freed-up by the switch-off

of analogue television between 2008 and 2012. This could enable the launch of a wide range of possible services which might include advanced business and broadcasting services, wireless broadband services or additional television channels using standard or high definition. We aim to publish a consultation document before the end of 2006, before taking its final decision on the award process in 2007.

- 3.26 Beyond these initiatives, public sector bodies are working with industry to identify and address gaps in broadband coverage. The various public broadband schemes differ in their characteristics. Ofcom considers the best targeted schemes to be those that bring a standard level of broadband access to businesses or households which would not otherwise be supplied by the market. These schemes can offer substantial benefits to the regions and consumers they cover, and offer little danger of distorting competition in the market. Where public schemes seek to increase broadband schemes beyond a standard level, or where they aim to accelerate deployment in a particular region, they represent a much greater danger of distorting competition in the market, even if they achieve other regional development objectives.

### Take-up and use

- 3.27 Ofcom's role in this area has been focussed on research, monitoring and reporting on take-up across demographic groups, and on media literacy work.
- 3.28 Ofcom has a research programme examining the availability, take-up and use of the Internet and broadband across all consumer groups. In addition to the specific Nations and Regions research, Ofcom has published research on the digital consumer and carries out regular research to track these issues. Ofcom intends to carry out further research on the use of communication services by children, minority ethnic groups and disabled consumers. The Ofcom Consumer Panel has published research on the use of communications by older persons.
- 3.29 Ofcom's definition of media literacy is 'the ability to access, understand and create communications in a variety of contexts'. Our principal role is to provide leadership to help achieve our goal. Our work has been concentrated on achieving greater understanding of media literacy in the UK, and encouraging greater awareness of and confidence and competence in the use of new communications technologies. The work has included:
- a review of how UK adults and children access, understand and create communications, with a particular focus on electronic communications (our 'media literacy audit').
  - creating a number of partnerships to promote media literacy such as working with other organisations on a wide variety of technology taster sessions as part of Adult Learners' Week in 2005 and 2006 .
  - working with the Home Office to develop a kite mark scheme for domestic internet filtering products. This will help provide more internet users with the confidence needed so that they and their families can safely use the internet.
  - organising with Help the Aged a series of media literacy workshops with broadcasters across the country.
  - providing support for trainers taking part in Silver Surfer Week - a week-long event where local organisations and groups provide computer and internet taster

sessions for older adults who want to experience first hand the benefits of being digitally connected.

- 3.30 As technology changes and services converge and as access to the internet becomes more important to people in order to participate fully in social and economic life in the UK, examining issues around the take-up and use of services by all customer groups will be a priority for us.
- 3.31 Issues around take-up of the internet and broadband will be particularly challenging as they are impacted by broader socio-economic factors such as the low take-up of PCs by the over 65s and lower income households. Nevertheless these issues are central to delivering the interests of citizens in communications services and we will review broadly possible approaches for delivering social outcomes and the roles of Ofcom and other stakeholders.
- 3.32 We will seek to understand more fully the nature of obstacles to delivery and take-up, assess their significance and consider whether we can or should act, either directly or through a facilitation role, to remove or overcome them. We are beginning a new project on digital inclusion which will operate alongside our on-going work on media literacy and our research programme. The project will seek to answer the questions:
- Where is there a lack of availability or take up?;
  - What are the causes of such lack of availability and low take-up and what are their magnitudes and significance for social and economic inclusion?;
  - In what circumstances do Ofcom's duties imply that we should seek to address a lack of availability or a lack of take-up?; and
  - What should Ofcom do or encourage others to do to address digital inclusion?

## **Consumer Empowerment**

- 3.33 This section examines how the three stages of consumer empowerment are operating for internet and broadband services. As explained in section 2 these are awareness of alternative suppliers and services; access to comparable information on prices and quality of services; and awareness of and access to switching processes.

### **Awareness of suppliers**

- 3.34 Awareness of suppliers in the internet market is lowest of all the services examined – although half were able to cite two or more suppliers. A fifth of internet customers were unable spontaneously to state any narrowband internet service providers (ISPs) in their area and a further 29% were only aware of a single supplier.
- 3.35 Awareness of multiple broadband suppliers was slightly higher at 57% of internet customers rising to 72% on prompting.

### **Access to comparable information**

- 3.36 In relation to internet services 79% of adults are able to mention spontaneously at least one place to go for trusted information. The most frequently mentioned trusted source of information for consumers is friends, family and colleagues – mentioned by around 43% of internet users. Suppliers and websites (including supplier websites)

were considered trustworthy sources of information by a sixth and a quarter of consumers respectively.

- 3.37 Consumers find it easier to compare costs than to compare quality of service. 52% of customers in the fixed market and 61% in the mobile market find it very or quite easy to make cost comparisons; this falls to 43% and 51% respectively in mobile markets.

### Switching

- 3.38 Just over one quarter (28%) of consumers have ever switched their ISP supplier – 18% changed supplier more than 12 months ago, and 9% changed within the last 12 months. These are lower levels than for fixed or mobile services, perhaps reflecting the earlier stage of development for internet/broadband services.
- 3.39 Similar to the fixed line market, those aged 25-64 years are more likely than younger or older consumers to have changed. Consumers earning £17.5k - £29k (29%) and £30k+ (37%), as well as ABC1s (34%) are more likely than others to switch.
- 3.40 Looking at wider levels of participation, consumers in the internet market are most likely to say they will be keeping an eye on deals available with other ISPs (62%), than in the mobile market (40%) or fixed line (39%).

### Ofcom's policy

- 3.41 As explained in section 2 Ofcom will be revising and relaunching its price comparison accreditation scheme. We believe that a new scheme offering consumers quality-assured price comparison services including broadband and bundled services, which is widely promoted by Ofcom and which consumers are advised to use, would be the most effective means to ensure wide availability of independent price comparison information.
- 3.42 In addition the Topcomm industry forum set up to produce comparative indicators on fixed-wire quality of service (also explained in 2.60) is working with Ofcom to consider suitable parameters for broadband services.

### Consumer Protection

- 3.43 The top three complaints to Ofcom's contact centre from October 2005 on Internet issues are:
- Having a 'tag' on the line. Here, a customer tries to order broadband, but is told by his chosen supplier that he cannot have service because there is a 'tag' or 'marker' on the line – which may mean that another supplier is already providing service on that line.
  - Problems around the Migrations Authorisation Code ("MAC") process. The MAC process is a process that enables customers to switch between broadband providers with minimal disruption to their service. A MAC is a unique code that the customer obtains from their existing provider and gives to their new provider to arrange a migration.
  - Loss of service
- 3.44 When prompted with a list of issues that have been topical for some consumers in the UK we found the following the main concerns for consumers are:

- Sex, violence or other adult material on Internet
- Internet security and risk of fraud
- Lack of regulation of the internet

## **Broadband Migrations**

- 3.45 Ofcom considers that it is vital to support consumers' ability to switch or "migrate" between products and providers – so that customers can consider available options and change service provider and/or products when they want to.
- 3.46 In April 2006 Ofcom announced that it would examine the effectiveness of existing processes which enable consumers to sign up to, and switch between, broadband providers to address concerns over the MAC process and 'tag' on the line.
- 3.47 Following requests by Ofcom to address the problem, BT Wholesale established a dedicated helpdesk which is helping customers and their broadband providers get broadband where they are affected by tags.
- 3.48 Ofcom published a consultation document *Broadband migrations* on 17 August 2006 with proposals to make it easier for customers to change suppliers, including a new general condition which will require providers to make sure customers can obtain broadband service and switch providers with minimal disruption. This includes a requirement for suppliers to provide MACs to customers on request.
- 3.49 The consultation closed on 5 October 2006 and Ofcom intends to publish a final statement later in 2006.
- 3.50 On broader migration issues around broadband and other services, Ofcom published a consultation document *Migrations, switching and mis-selling* in February 2006 reviewing current approaches to migrations, switching and mis-selling across transferable voice and broadband products. Ofcom's initial view is that there may be good reasons for moving towards a single switching process applying to all transferable voice and broadband products.
- 3.51 Ofcom is currently considering responses to the consultation and intends to carry out a further consultation in 2007 setting out our thinking in more detail.

## **Internet content**

- 3.52 Responsibility for dealing with issues around accessing inappropriate internet content and protection against fraud lies mainly with other stakeholders. However, given our responsibility for UK communications markets, the development of the institutional structures appropriate for the internet will profoundly affect Ofcom. We therefore published a research report we hope is opening a debate on the appropriate response to the consumer protection challenges posed by the internet (see 3.54 below onwards).
- 3.53 Ofcom's primary activities in this area have been around our work on media literacy. We are aiming to achieve a greater understanding of the levels of media literacy in the UK and encouraging greater awareness of, and confidence and competence in, the use of new communications technologies. Our work includes

- Ofcom's Media Literacy Audit (MLA). Carried out in early 2006, it evaluated levels of media literacy across the main digital platforms including the internet. It examined users' access to, usage of and opinions of the internet, including views on internet security.
  - It examined user's access to, usage of and opinions of the internet, including views on internet security.
  - Input into Home Secretary's Task Force on Child Protection on the Internet. As well as supporting the Task Force, Ofcom contribute to the work of two sub groups which focus on child protection measures and raising awareness. In December, the child protection subgroup produced two good practice guidance documents for search providers and for the moderation of interactive services for children. The awareness subgroup made significant progress with several projects aimed at increasing public awareness. These included campaigns run from January to April 2006 targeting children and parents highlighting the dangers of minors meeting strangers on the internet.
  - BSI Internet Filtering kite mark. Ofcom and the Home Office are working with the industry to develop a kite mark scheme for domestic internet filtering products. This will help provide more internet users with the confidence needed so that they and their families can safely use the internet. The British Standards Institute has now developed the draft standard. Work is underway to consult with the software developers and stakeholders with the intention of launching the standard in 2006. It is hoped the first kite marks will be awarded later in the year.
  - Internet Safety Content Agent (ISCA) Project run by the Cyberspace Research Unit, University of Central Lancashire. Ofcom are represented on the project steering group.
  - We continue our research programme looking at on-line protection and security
- 3.54 In June 2006 we published research which revealed the importance of effective industry self-regulation and consumer empowerment in addressing consumer protection issues on the internet. This report - *Online Protection – A survey of consumer, industry and regulatory mechanisms and systems* - examined the broad range of processes used in the UK and other countries to address a number of consumer protection issues online, including illegal or harmful internet content. The report was published as the European Commission takes forward proposals to revise the Audio-Visual Media Services Directive and is intended to inform the current debate about the most appropriate approach to protecting consumers online.
- 3.55 In the report, we outlined our belief that it would not be appropriate or effective to attempt to translate existing regulatory structures onto the internet. The existing lack of regulation has contributed to its very success and the innovation it has engendered. In the future, it will therefore be important to maintain the benefits of this open approach as much as possible in order not to cause undue negative impact on consumers as well as businesses.
- 3.56 However we recognise that as legitimate use of the internet has grown, so have the scale and impact of its fraudulent and criminal uses. The international nature of the internet has generated new opportunities for consumers but it has also put them within easier reach of those seeking to take advantage of them. The internet has given rise to many new types of crime – for example, identity theft by phishing, malicious virus dissemination via SPAM, and online grooming of children. It has also

made it easier for criminals to circumvent judicial systems by taking advantage of the impersonal nature of the internet to misrepresent or disguise their true identity.

- 3.57 The internet therefore raises important consumer protection issues for governments and policy makers to consider. In order to inform the current debate on how best to tackle them, we presented a survey of the main consumer protection issues related to the internet, and the approaches taken to tackling those issues in the UK and in other countries. A key initiative in the UK is the Financial Services Authority's (FSA) customer education programme to raise awareness about the issues of online identity theft, as well as a process for dealing with reports of instances relating to identity theft. As part of this programme, the FSA provides best practice information to consumers on how to avoid being targeted
- 3.58 We intend our Online protection report to become the first in a series of regular surveys of international approaches to regulation and the internet, which will allow us to track the emergence of new regulatory tools and frameworks, and the development of new institutional structures dealing with the internet as a communications platform.
- 3.59 While we have not drawn specific policy recommendations from this report, we hope it will open a debate on the appropriate response to the consumer protection challenges posed by the internet. A copy of the full report can be found at <http://www.ofcom.org.uk/research/technology/onlineprotection/>

## Section 4

# Digital Broadcasting

## Introduction

- 4.1 This section considers the issues raised by the research report in respect of digital and television services. It looks at choice (pricing, range of service and satisfaction), access issues (availability and take-up of services) and consumers' engagement with the competitive market. It concludes by reviewing data on consumer complaints and research on consumer concerns. It does not cover content issues as these are reported on separately.
- 4.2 Digital television services are available through digital satellite, digital terrestrial television, digital cable and in some areas via broadband. In 1999 the Government announced its intention to stop analogue TV broadcasting and move to all-digital TV transmissions, a policy that has become known as 'digital switchover'. In September 2005 the Secretary of State for Culture, Media and Sport confirmed that switchover would begin with the Border television region in 2008 and be rolled out by region over the following four years.
- 4.3 Digital UK is the organisation responsible for managing the transition to digital television. Ofcom provides advice to Digital UK where we can usefully contribute to its work.
- 4.4 Digital radio is available across the UK via the internet, digital TV and DAB digital radio. DAB digital radio services are available from the BBC, local multiplex services and Digital One.

## Price and satisfaction

- 4.5 The research report shows that nearly nine in ten consumers are satisfied with their multi channel service (88%). Satisfaction with digital radio services was not included in this year's research.
- 4.6 There have been various changes in the broadcasting market over the past year in relation to the cost of services and packages offered.
- 4.7 In September 2005 BSkyB restructured its channel packages with the aim of widening the choice and simplifying pricing. The cost of its top tier package increased by £1.50 to £42.50 per month.
- 4.8 The typical cost of a Freeview box during mid 2006 (based on a survey of electrical retailers) stood at an average of £50 (the cheapest box available at this time was on offer for £19.99).
- 4.9 For digital radio, the key pricing issue affecting take-up is around the cost of DAB sets. The average cost of a set had fallen to £78 (in Q1 2006) from £109 (in 2004).

## Range

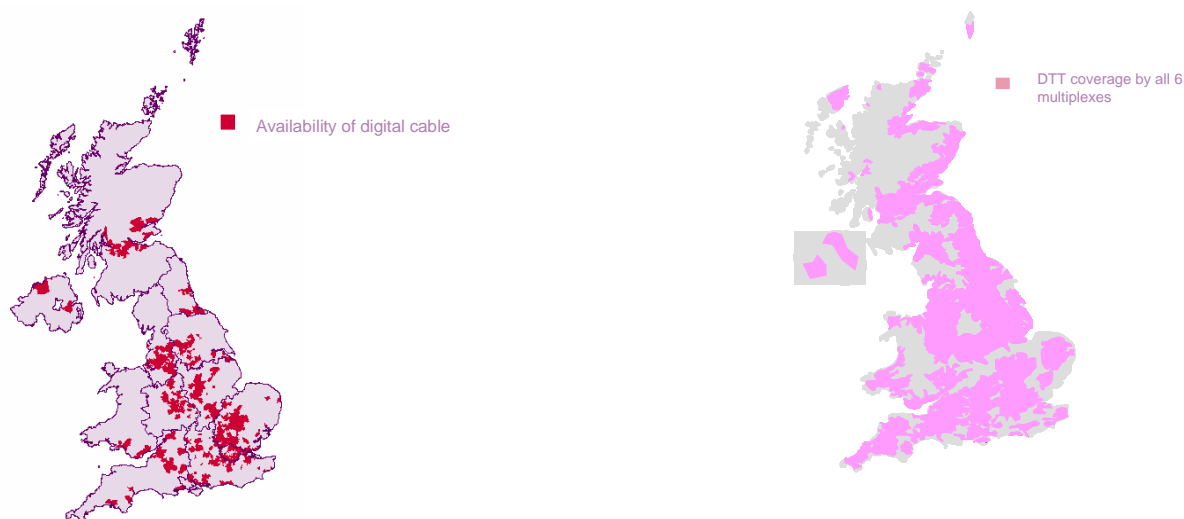
- 4.10 Digital television services are available to consumers through digital satellite, digital terrestrial television ('Freeview'), digital cable and in some areas via broadband.

- 4.11 There is an increasing choice available to consumers over how they ‘consume’ television. Twenty years ago viewers had a choice of just four channels; now there are more than 400 available on all digital television; 41 on digital terrestrial television (DTT) of which 30 are free-to-air.<sup>8</sup>

## Access

### Digital TV

- 4.12 Approximately 98% of households across the UK are able to receive digital satellite and 45% are passed by digital cable. However, a small number of homes are unable to receive satellite services due to specific local factors or housing agreements. Currently at least 73% are able to receive digital terrestrial television (DTT) from both BBC and commercial service providers and this will rise to 98.5% once the programme of digital switchover is completed.

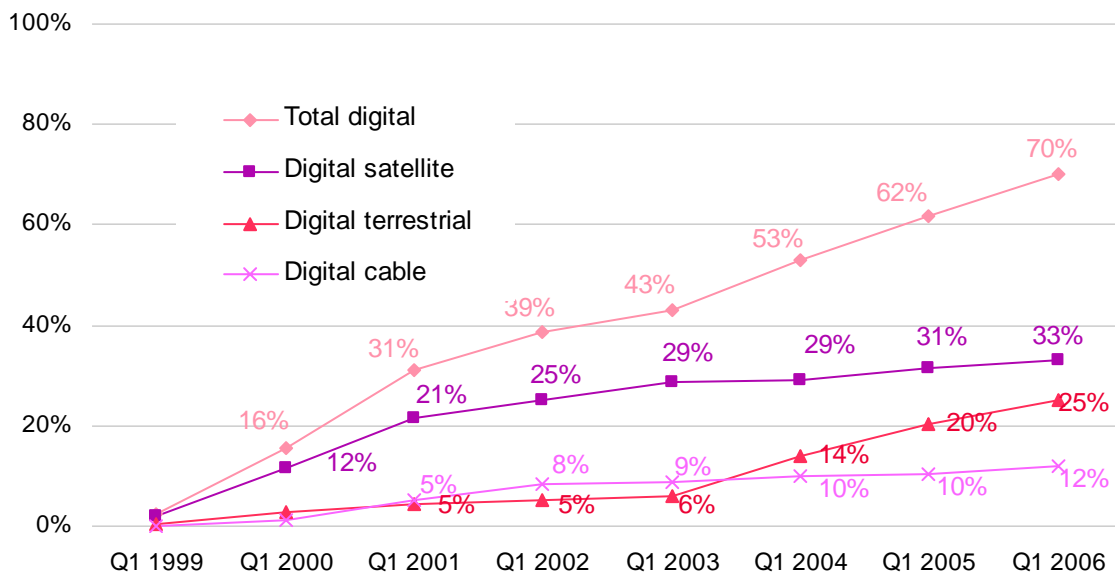


**Figure 4.1: Availability of digital cable and digital terrestrial television, DTT**

- 4.13 Nearly three-quarters of UK homes owned digital TV during Q1 2006, an increase of 11 percentage points over the last year. The take-up of Freeview was the main driver behind this growth. By the end of March 2006, Freeview had been installed in 7.1 homes having gained 2 million homes in 12 months. For the first time, main sets in the home with Freeview now exceed the number of analogue main sets, but when all sets are taken into account the majority (60%) are still analogue-enabled.
- 4.14 The rise in ownership of digital TV occurs across all demographic groups. However, the largest increases are seen amongst adults aged 45+ and C2 socio-economic groups and those with an annual household income of between £17.5K and £29.9K. Ownership of digital TV is lower than average amongst people aged 65+ years, DE's and those earning less than £11.5k.

<sup>8</sup> these figures include regional and time-shift channels

- 4.15 The growing popularity of digital television came alongside both a broadening of the range of channels available on the platform and an increase in the levels of investment by providers.



**Figure 4.2 Trends in take-up of digital TV platforms**

### Ofcom's policy

- 4.16 Ofcom's responsibility for addressing consumer issues arising from digital switchover is mainly focused on the outcomes of our spectrum planning work and its impact on the coverage and reception of DTT. Digital UK takes the lead on the vast majority of the other consumer issues and Ofcom supports this work where appropriate.
- 4.17 Ofcom announced coverage plans for DTT in June 2005 having considered issues relating to the technical conditions, such as power levels, transmission mode and the number of transmitters to be used. Ofcom's approach, accepted by the Government, required three public service multiplexes to provide DTT coverage to at least the same proportion of households (98.5%) that currently receive robust analogue transmissions (although not necessarily with the same coverage pattern).
- 4.18 For those viewers who are outside this core coverage area, this does not automatically mean they will not be able to receive any DTT coverage. Ofcom is working with Digital UK to provide advice on the levels of DTT coverage they might expect and, where DTT is not reliably available, advise on alternative ways of receiving digital television, such as free-to-view satellite. Ofcom recently published a report on viewers' priorities arising from digital switchover. The report aims to identify the issues that could affect viewers, set out how these are being addressed and which organisation has responsibility for delivering solutions.
- 4.19 Much of the value of moving to digital lies in the opportunity this creates for viewers to have access to a wide range of new TV services. Consumers need to be made aware of these opportunities, including video-on-demand, interactive services, high definition TV and technology that makes it easier for people with sensory impairments to access TV services.

- 4.20 Viewers who have sight or hearing impairments benefit greatly from the availability of television access services. This includes subtitling and signing for deaf and hard of hearing people and audio description for blind and partially-sighted people. Ofcom is responsible for setting the criteria for deciding which channels should provide access services and this year reviewed the code that sets out how this policy is applied. From 2007, 91 channels will be required to provide access services, which is a significant increase on the current 76 channels.
- 4.21 The Government has announced plans to establish a Digital Switchover Help Scheme to provide a safety net for those most likely to face difficulties in making the switch to digital TV. This includes people aged 75 and over, disabled people receiving attendance allowance or disability living allowance, and people who are registered as blind or partially-sighted. The support will be free to those eligible households receiving pension credit, income support or jobseekers' allowance. Other households will pay a modest fee.
- 4.22 It is recognised that there will be other households outside this Help Scheme that may require assistance and Digital UK is exploring ways of providing help to people outside the Government's scheme, in partnership with the voluntary sector.
- 4.23 Ofcom is working with others, including the DTI, to encourage easier use of digital television equipment. Ofcom published a report on the usability of domestic digital television equipment in March 2006<sup>9</sup>. Currently, we are working on a project to encourage the availability of easier to use digital switchover receiver equipment. Recent research carried out on usability issues for digital switchover<sup>10</sup> found that between 2 and 5 million people could benefit from an easier to use digital TV set top box. We plan to report on progress with this project in spring 2007.

## Digital Radio

- 4.24 Choice and range of radio stations is increasing for customers. The number of radio stations broadcasting in the UK on AM, FM or digital audio broadcasting (DAB) platforms, excluding community radio, increased from 372 in April 2004 to 384 by June 2006. They include a mixture of local, regional and national services, supported by public funding or commercial revenues. In addition, around 90 stations were broadcasting on digital satellite as at June 2006 (many of which were simulcasts of AM/FM/DAB services).
- 4.25 Digital radio availability and take-up continued grow. The majority of the UK population (89%) is now covered by DAB at least one multiplex. Over 1.5 million DAB radio sets were sold in the 12 months to Q1 2006, more than 50% up on the previous year. This took total UK DAB set sales to 3 million and at least one set can be found in 11% of households. The increase in DAB has been fuelled by: falling prices; enhanced functionality; and a broadening product range with over 230 models available.
- 4.26 On average 83% of adults live in a household with access to digital radio – either via the internet or their digital TV. However, less than half this proportion (37%) said they had digital radio access at home. This highlights a lack of awareness amongst consumers in relation to the functionality of digital TV and internet.

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<sup>9</sup> Summary of research on the ease of use of domestic digital television equipment, 8 March 2006  
<http://www.ofcom.org.uk/research/tv/reports/usability/>

<sup>10</sup> Scientific Generics, *The equipment needs of consumers facing most difficulty switching to digital TV*, April 2006

- 4.27 The share of total radio listening by customers using DAB sets more than doubled in 2005 to 5.8%. This was accompanied by further growth in listening via digital TV (3%) and via the internet (1.9%) taking total digital listening to 11%.
- 4.28 Older consumers (65+ years) and DEs are least likely to own a DAB radio set but ownership has risen in this group from 14% to 21% between 2005 and 2006. Ownership of DAB radio increased with income from 21% among those on the lowest incomes (less than £11.5K) to 51% among those on the highest income (£30K+). Ownership of DAB radio is lowest among DEs and has not increased since 2005.

#### Ofcom's policy

- 4.29 Industry has incentives to promote and explain digital radio services to customers. The market and technology is changing rapidly with station owners ensuring that radio is available on the widest possible range of digital platforms such as DAB, digital TV and the internet and with digital radio playing a part in recent trials of broadcasting to mobiles. These changes can be expected to accelerate with the future award of the second national radio multiplex licence and new local radio multiplex licences as set out in Ofcom's statement in July 2006 on The Future Licensing of DAB Digital Licensing.<sup>11</sup>
- 4.30 Ofcom will continue to monitor and report on the awareness, take-up and use of digital radio services.

### **Consumer Empowerment**

- 4.31 This section examines access to comparable information on prices and quality of services and awareness of and access to switching processes for digital broadcasting services. Ofcom's research data for broadcasting services in this area is relatively limited this year. We intend to expand this data for next year's report.
- 4.32 For digital TV services consumers are generally charged a flat fee for the package they use and additional charges are only incurred if they use additional services such as pay-per view/top-up channels or gaming/internet services. Therefore, estimating usage in order to make comparisons between suppliers/platforms is not too difficult. 60% of consumers find it easy to make cost comparisons between multi-channel TV suppliers broadly in line with internet and mobile markets and higher than fixed markets. Fewer consumers – 50% - find it easy to compare quality of service between multi-channel TV suppliers.
- 4.33 Around one in ten (12%) of multichannel TV owners said they had previously used an alternative platform.

#### **Ofcom's policy**

- 4.34 As set out in sections 2 and 3, consumers have demonstrated considerable interest in the emergence of bundled services offering a combination of fixed/mobile/broadband/digital TV. We recognise that service bundling may make it more difficult for consumers to compare packages and are revising and relaunching Ofcom's accreditation scheme for providers of price comparisons. One of the key objectives of the new scheme is to address the increased complexity resulting from convergence and service bundling by extending accreditation to and encouraging the development of services which allow consumers to compare service bundles.

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<sup>11</sup> <http://www.ofcom.org.uk/consult/condocs/dab/statement/dabstatement.pdf>

## Protection

- 4.35 Most complaints to Ofcom's Contact Centre related to content issues which are outside the scope of these reports. Details of our decisions in response to complaints about harm, offence, accuracy, impartiality, fairness and privacy in television and radio programmes are published separately on our web site at <http://www.ofcom.org.uk/tv/> .
- 4.36 When prompted with a list of issues that have been topical for some consumers in the UK we found the main non-content concerns relating to broadcasting for consumers are:
- Digital switchover
  - Radio coverage and reception

### Digital Switchover

- 4.37 Our research shows that although 75% of consumers are aware of Digital Switchover, only 35% expressed concerns. Consumer concern around is mostly a result of lack of awareness about what the process entails. Consumers who contact Ofcom about digital switchover are directed to Digital UK, as they are responsible for providing consumer information.
- 4.38 Earlier this year Digital UK began a national communications programme, designed to build awareness of switchover and how consumers could receive more information and advice. A key component of the digital switchover programme is focused on ensuring consumers are given accurate, impartial and timely advice to assist them with making informed decisions about switching to digital television.

### Radio coverage and reception

- 4.39 Long- and medium- wave (AM) reception is often affected by interference and fading, especially after dark. Ofcom's website provides advice to consumers about dealing with reception problems.
- 4.40 Ofcom announced in 2005 plans to advertise a second national DAB radio multiples licence. In addition we have identified 31 new local DAB radio multiplex licences which will be advertised to fill gaps in the existing local DAB coverage.

## Section 5

# Conclusions and next steps

- 5.1 This section draws together the key messages of the research and the implications for Ofcom's regulatory approach. It also explains how to make comments on the reports.

### Consumer choice and range

- 5.2 Central to Ofcom's regulatory approach is that consumers' interests are in general best served by promoting effective competition in the provision of communications services. The research indicates that this approach is delivering significant benefits to consumers in terms of falling prices, increased satisfaction and a broader range and wider availability of services.
- 5.3 We will maintain our efforts to promote effective competitive markets across all communication services to ensure that consumers continue to benefit. A major element of this will be the full implementation of the Telecoms Strategic Review to ensure that BT provides access to its competitors which is equivalent to the access it gives to its own business.

### Protected consumers

- 5.4 While the rapid development of communications markets, with greater innovation and increasing range of service offerings, delivers significant benefits to consumers, it can also create the conditions in which scams and unfair practices develop quickly. These can result in financial loss, inconvenience and anxiety for consumers.
- 5.5 Consumer protection is a key priority for Ofcom. We aim to ensure that communications markets are fair and consumers are protected against harm. Our regulatory principles state that we will operate with a bias against intervention, but with a willingness to intervene firmly, promptly and effectively where required. Over the last year we have increased our efforts in particular to tackle misselling, slamming, silent calls and scams.
- 5.6 The research confirms that we are right to identify these as priority areas for intervention. Although the vast majority of customers have not experienced any of these difficulties, they are concerned at the potential risk and see them as issues that the regulator should be addressing.
- 5.7 Progress is beginning to be made: complaints about misselling and slamming have fallen (though still remain too high), new rules have been introduced on silent calls and enforcement action has been taken to address the most serious problems. We need now to reinforce our efforts to protect consumers from harm and to strengthen a culture of compliance within industry. We will make sure we take effective and speedy enforcement action against those who flout regulation. We will also make sure consumer protection rules continue to meet the challenges of the developing communications markets and the changing needs of consumers.

## Empowered consumers

- 5.8 Consumers having confidence, knowledge and understanding in their dealings with the market is necessary both to help them secure the benefits of competition and also to reduce the risks of harm as part of an effective consumer protection regime. The research shows some positive results with growing awareness of suppliers and an increasing engagement with the competitive market.
- 5.9 However problems for customers switching suppliers are emerging for some services and this is likely to increase as more consumers take up bundles of services which can make changing providers more complex. We believe it is vital that consumers can compare and change providers and products easily. We have made proposals to improve the availability of comparative information services and to improve switching processes in particular for broadband services.
- 5.10 We will be setting out later this year details of a revised price comparison scheme for single and bundled services and the conclusions of a consultation on a new general condition which will require providers to ensure that consumers can obtain broadband service and switch providers with minimal disruption. We will consult further early in 2007 on wider proposals to establish common principles on customer migrations and switching across a range of telecommunications services.

## Availability and take-up of services

- 5.11 The research also reported on metrics around our duties in relation to 'citizen' issues such as ensuring the availability and take-up of those services essential to full social and economic inclusion. The research shows that progress is being made: a broad range of communications services is being rolled-out across the UK and take-up of services is increasing across all socio-economic groups with some of the highest rates of growth amongst groups of customers who were initially slow to take up the services.
- 5.12 We have a range of policy and research work underway that addresses issues around those living in rural areas, older people, children, disabled customers, those from ethnic minorities and customers with low-incomes. The research again shows that progress is being made but as technology develops and services converge, examining issues around the extent of the availability, take-up and use of services by all customer groups and around the importance of services for social inclusion will be another key priority for us.
- 5.13 We will also consider the implications of convergence and increased service bundling in terms of market complexity. The availability of different bundles of products (such a fixed telephony/broadband and fixed telephony/broadband/digital TV) can be attractive to consumers, not only from a cost perspective but also because of increased ease of use and single point of contact. However because each provider offers a bundle with slightly different characteristics, this can also mean consumers cannot easily move or change services, and find difficulty comparing offerings. We will therefore ensure that consumers have access to easy switching processes and comparative information.

## Your views on the reports

- 5.14 This is the first time we have carried out an evaluation of this kind and we are still developing the measures we use. We intend to repeat this exercise annually, and are keen to keep developing our list of measures to allow a thorough policy

evaluation of Ofcom's work to further the interests of consumers and citizens. For example in future reports we intend to include international price and availability comparisons and more data on consumers' experience of broadcasting services.

- 5.15 We also want to use these reports as an important part of our engagement with stakeholders to develop a shared understanding of consumers' experiences of communications markets and of the regulatory priorities going forward.
- 5.16 We would therefore welcome comments from stakeholders on:
- the measurements used;
  - the research findings;
  - the policy issues raised;
  - the conclusions we are drawing; and
  - the priorities for Ofcom as a result.
- 5.17 If you would like to give us comments on any of these issues, please send them to [alan.pridmore@ofcom.org.uk](mailto:alan.pridmore@ofcom.org.uk) .
- 5.18 In addition, Ofcom will shortly be consulting on our draft Annual Plan for 2007/8. We hope that this research will help stakeholders to engage with that process and respond to the consultation.

## Annex 1

# Glossary

<b>2G</b>	Second generation of mobile telephone systems using digital encoding. 2G networks support voice, low speed data communications, and short messaging services.
<b>3G</b>	Third generation of mobile systems. Provide high-speed data transmission and supporting multimedia applications such as full-motion video, video-conferencing and internet access.
<b>the £3400 rule</b>	BT's tariff rule that the standard connection fee applies except where installations are so remote that installation would cost over £3,400 (when the customer pays the standard fee plus the excess above £3400).
<b>ABC1</b>	The aggregate of socio economic groups A, B and C1 (see SEG).
<b>the Act</b>	The Communications Act 2003
<b>ADSL</b>	Asymmetric Digital Subscriber Line. A digital technology that allows the use of a copper line to send high bandwidths in one direction and a lesser bandwidth in the other.
<b>ADR</b>	Alternative dispute resolution
<b>Broadband</b>	A service or connection generally defined as being "always on" and providing a bandwidth greater than 128kbit/s.
<b>BT</b>	British Telecommunications plc
<b>C2DE</b>	The aggregate of socio-economic groups C2, D and E (see SEG)
<b>CISAS</b>	Communication and Internet Services Adjudication Scheme
<b>DAB</b>	Digital Audio Broadcasting. The brand name for the technology by which terrestrial Digital Radio multiplex services are broadcast in the UK.
<b>DACS</b>	Digital Access Carrier System. A device used on BT's network that enables two telephone services to be provided over the same copper pair. DACS is incompatible with DSL services
<b>DSL</b>	Digital Subscriber Line. A family of technologies generally referred to as DSL, or xDSL, capable of transforming ordinary phone lines (also known as 'twisted copper pairs') into high-speed digital lines, capable of supporting advanced services such as fast internet access and video-on-demand. ADSL, HDSL (High data rate Digital

Subscriber Line) and VDSL (Very high data rate Digital Subscriber Line) are all variants of xDSL)

<b>DTI</b>	Department of Trade and Industry.
<b>DTT</b>	Digital Terrestrial Television, currently most commonly delivered through the Freeview service.
<b>Eol</b>	Equivalence of Input. Under Eol all communications providers – including BT Retail - purchase exactly the same wholesale products through exactly the same systems.
<b>ICSTIS</b>	the Independent Committee for the Supervision of Standards of the Telephone Information Services, is the regulatory body for all premium rate charged telecommunications services
<b>Internet</b>	Global network of networks, using a common set of standards.
<b>ISP</b>	Internet Service Provider. A company that provides access to the internet.
<b>Kbit/s</b>	Kilo bits per second (1,000 bits per second). A unit of measurement of data transmission speed.
<b>LLU</b>	Local Loop Unbundling. A process by which BT's exchange lines are physically disconnected from BT's network and connected to other operators' networks. This enables operators other than BT to use the BT local loop to provide services to consumers.
<b>Local Loop</b>	The access network connection between the customer's premises and the local PSTN exchange, usually a loop comprised of two copper wire.
<b>MAC</b>	Migrations Authorisation Code. A MAC is a unique code that the customer obtains from their existing provider and gives to their new provider to switch service.
<b>Mbit/s</b>	Mega bits per second (1,000,000 bits per second). A unit of measurement of data transmission speed.
<b>Multiplex</b>	A device that sends multiple signals or streams of information on a carrier at the same time in the form of a single, complex signal. The separate signals are then recovered at the receiving end.
<b>Narrowband</b>	A service or connection providing data speeds up to 128kbits, such as via an analogue telephone line, or via ISD.
<b>Openreach</b>	BT's access services division
<b>Otelo</b>	Office of the Telecommunications Ombudsman
<b>PASS</b>	Price Assurance Standard: Ofcom's accreditation scheme for third party services that provide comparative information services.

<b>Postal district</b>	The geographic area identified by letters and numbers which appears as the first part of a post code, e.g. SW8.
<b>PRS</b>	Premium Rate Service Services including recorded information and live conversation, run by independent service providers. All calls to these companies are charged at a higher rate than ordinary calls to cover the companies' costs in providing the content of the call and the operator's cost for the special network facilities needed.
<b>PSTN</b>	Public Switched Telephone Network – such as BT's current copper telephone network.
<b>Rural</b>	Settlements with populations below 2,000 and more than 10 miles from a larger settlement.
<b>Silent calls</b>	The most common cause of silent calls is when automated calling systems("diallers"), used by call centres for telemarketing, market research, debt collection and other purposes, generate more calls than the available call centre agents can manage. If an individual answers a call and no agent is available, the dialler will terminate the call, resulting in silence on the line.
<b>Slamming</b>	Where the a customer's service is transferred to an alternative provider without the consumer's permission
<b>SME</b>	Small or Medium sized Enterprise.
<b>SEG</b>	Socio Economic Group (A social classification, classifying the population into social grades, usually on the basis of the Market Research Society occupational groupings (MRS, 1991). The groups are defined as follows.  <b>A.</b> Professionals such as doctors, solicitors or dentists, chartered people like architects; fully qualified people with a large degree of responsibility such as senior civil servants, senior business executives and high ranking grades within the armed forces. Retired people, previously grade A, and their widows.  <b>B.</b> People with very senior jobs such as university lecturers, heads of local government departments, middle management in business organisations, bank managers, police inspectors, and upper grades in the armed forces.  <b>C1.</b> All others doing non-manual jobs, including nurses, technicians, pharmacists, salesmen, publicans, clerical workers, police sergeants and middle ranks of the armed forces.  <b>C2.</b> Skilled manual workers, foremen, manual workers with special qualifications such as lorry drivers, security officers and lower grades of the armed forces.

- D. Semi-skilled and unskilled manual workers, including labourers and those serving apprenticeships. Machine minders, farm labourers, lab assistants and postmen.
- E. Those on the lowest levels of subsistence including all those dependent upon the state long-term. Casual workers, and those without a regular income.

**Tag on line** A marker or tag left by a broadband provider on a line which prevents a customer taking service with another provider

**Telecoms Strategic Review** Ofcom's strategic review of telecommunications 2004-5  
[http://www.ofcom.org.uk/static/telecoms\\_review/index.htm](http://www.ofcom.org.uk/static/telecoms_review/index.htm)

**TPS** Telephone Preference Service. Service established by the Direct Marketing Association to help reduce the number of unwanted telemarketing calls received by customers. Customers contact their telephone company to join and their details are then removed from lists used by many companies engaged in.

**USD** Universal Service Directive. Directive 2002/22/EC on universal service and users' rights. [http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l\\_108/l\\_10820020424en00510077.pdf](http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_108/l_10820020424en00510077.pdf)

**USO** Universal Service Obligation. This is a series of requirements, currently upon BT and Kingston Communications, to provide every household in the UK with access to a landline telephone.

**WiFi** (Wireless Fidelity) Short range wireless technologies using any type of 802.11 standard such as 802.11b or 802.11a. These technologies allow an over-the-air connection between a wireless client and a base station, or between two wireless clients.

**WLR** Wholesale Line Rental. A regulation requiring BT to make local access lines available to competing providers at a wholesale price.