



## **Improving Business Communications in the United Kingdom**

**Prepared for UKCTA**

Strategy and Policy Consultants Network Ltd

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## 1. Executive Summary

Electronic Communications Services are vital for businesses both to reduce their costs and to develop and deliver products and services to their customers. Home-working, video and telephone conferencing and instant availability of management information are examples of how businesses reduce cost. The importance of telecoms as a business channel is evidenced by 17 million UK residents using on-line banking in 2006.

In 2005, Ofcom completed its Telecoms Strategic Review (TSR). In the TSR, Ofcom identified the following as characteristics of a well functioning market:

- choice: including different solutions for increasingly diverse consumers, high levels of innovation, and a diverse set of sustainable suppliers;
- price: quality services at competitive prices;
- information: informed consumers who are able to make well-informed choices; and
- low switching barriers: ease of switching between suppliers.

In a market with these characteristics supplier firms have the incentive both to reduce their costs and pass those reductions on to consumers through lower prices, and to continue to innovate with new products and services.

Ofcom found in its TSR that problems still remained which meant that the market was not “well functioning”. To address these problems Ofcom introduced a number of changes in the way the industry was structured which addressed many of the competition problems associated with products aimed at residential and small business consumers. In particular, the TSR required BT, as the dominant operator in local access markets, to provide key access products on an “Equivalent” basis to its competitors and its own downstream (retail) business. These changes have been largely successful with regard to broadband, in particular through Local Loop Unbundling (LLU), in residential and small business markets.

However, for medium to large business customers competition problems remain which result in these important customers paying higher prices and having less choice.

*The key conclusion of this study is that, whilst UK business customers tend to be well informed, they are lacking choice, incur higher costs than necessary and are faced with substantial switching barriers. Business customers are therefore not able to enjoy the same benefits of a properly functioning market as residential consumers. Since telecoms is an important input for many firms, there is a knock-on effect on the rest of the UK economy as firms are themselves less efficient, and therefore less competitive, than they might otherwise be.*

Our analysis of benefits and problems of the UK electronic communications market for business customers is presented below:

	Price	Quality of service and customer satisfaction	Service choice	Access to services	Competition
<b>Fixed voice telephony</b>	UK businesses pay above the EU average and prices for some types of business (SoHo and SME) are the most expensive in the EU (Source 12 <sup>th</sup> Implementation Report). 64% of companies are satisfied with <i>value for money</i> on fixed line services. (Source: Ofcom)	60% of companies are satisfied with the <i>quality of customer service or account management</i> with their fixed line services (Source: Ofcom)	Wide range of tariff structures and bundling options	Ubiquitous availability	Highest number of operators using Carrier Pre-Selection in EU. Highest proportion of customers using alternative operators for direct access (Source: 12 <sup>th</sup> Implementation Report)
<b>Internet</b>	3 <sup>rd</sup> Lowest prices for broadband Internet access in EU (Source: OECD).	Unknown	Wide range of technology and packages. However, SDSL is only available on a limited basis	BT claim near 100% coverage but 41% of businesses claim DSL not available where they want it (source CMA 2006)	Wide range of competitors based on DSL, bitstream, LLU and cable. Migration process reduces barriers to switching.
<b>Corporate network services</b>	Prices for leased lines of various speeds above the EU average (Source 12 <sup>th</sup> Implementation Report) 38% of companies satisfied with <i>value for money</i> of advanced data services	44% of companies satisfied overall with advanced data services.	Altnets offer a range of services and bespoke solutions, but choice tends to be greatest in urban areas	Most large companies use some form of data services though many complain about the lack of SDSL – 73% of companies say they can't get SDSL where they need it (source: CMA)	BT continues to have SMP in five of the eight Business Connectivity markets identified by Ofcom in its market review. Lack of a novation process increases switching costs for business customers.

Based on this analysis we make the following recommendations:

- i) Ofcom should conduct a comprehensive strategic review concentrating on provision of services to business customers. The proposed review should be wider in scope than a Market Review, unconstrained by relevant product and geographic markets, and should establish the general level of competition for business customers. Where any bottlenecks or market failures may remain it should propose remedies, potentially both structural and behavioural, to correct whatever problems are found.
- ii) When Ofcom evaluates markets and its own actions (as for example in “Impact of the Telecoms Strategic Review: Evaluation” of December 2007) it should explicitly examine the effects on separate customer groups: residential consumers<sup>1</sup>, SMEs and large businesses.
- iii) NTS and migration are examples of issues where Ofcom has not given enough weight to the interests of business customers. Business customers and their suppliers also have legitimate concerns in these markets. So, when considering its proposals for better consumer protection, Ofcom needs to consider unintended consequences on businesses, in particular if its proposals might impose inefficient costs on business. Regulatory Impact Analyses should therefore explicitly examine the likely impact of a regulatory proposal on all customer types separately.

<sup>1</sup> In general, the term “consumers” in this report refers specifically to residential consumers rather than all types of telecoms users.

- iv) Ofcom should acknowledge that businesses use broadband access products for applications other than Internet access. The Business Connectivity Market Review (BCMR) should incorporate business grade variants of DSL and Ethernet in the First Mile (EFM) as business connectivity products and determine whether BT has SMP in these markets and impose appropriate remedies if that is the case, so that downstream markets can be effectively competitive.
- v) Again within the context of the BCMR, Ofcom should consider where lack of competition is failing to encourage BT to innovate or to offer lower cost alternatives. For example, SDSL can be used as a low cost substitute for leased lines and is, at least for some purposes, an efficient substitute. Lack of alternative wholesale providers of SDSL means that BT has no incentive to cannibalise its own PPC revenue and this is placing an unnecessary cost burden on businesses who are forced to buy a leased line when SDSL would be equally as effective. We propose that Openreach should be required to provide a business grade MPF product which would allow competitors to provide SDSL services with a service wrap that is competitive with PPCs.
- vi) We recognise that Ofcom has done an effective job in ensuring that LLU and WLR prices are reflective of cost. However, BT is still able to over recover on business connectivity products. We recommend therefore that Ofcom seeks to reduce PPC and Ethernet prices to a level where over-recovery no longer takes place.
- vii) The SLA/SLG proposals<sup>2</sup> set out by Ofcom are generally welcome but still leave room for improvement. Specifically, Ofcom should not only consider how to ensure BT meets its existing obligations but also how, given BT's position of SMP, BT can be made to improve the level of service offered. One possible way of achieving this would be to link price controls to Quality of Service, such that BT would be subject to less severe price controls on the proviso that it improves its QoS. We also note that the review only covered existing Openreach products, not services provided by BT Wholesale nor 21CN based services.
- viii) Whilst we recognise that contract novation is not a simple issue, Ofcom needs as a matter of urgency to address the problem of contract novations. This is a major barrier to switching which is damaging competition in the market for business customers and therefore customers themselves.

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<sup>2</sup> Ofcom [Service level guarantees: incentivising performance Statement and Directions](#) 20<sup>th</sup> March 2008

## 2. Introduction

Members of the UK Competitive Telecoms Association (UKCTA) welcome many of the actions taken by Ofcom to alleviate competition problems in residential markets. However, they are concerned that product markets (or product variants) serving business customers have been largely overlooked and that, as a result, competition problems in business markets remain: restricting choice and raising prices and therefore reducing welfare for business customers.

To determine whether it is the case that competition problems still exist in fixed markets for large businesses, UKCTA commissioned Strategy and Policy Consultants Network (SPC Network) to research this question and produce this report.

UKCTA members primarily provide fixed, as opposed to mobile, communications services, although some are involved in Mobile Virtual Network Operations (MVNOs). The focus of this report is therefore the fixed sector.

To conduct this study, SPC Network has reviewed several documents produced by Ofcom and conducted in-depth, qualitative interviews with six UKCTA members and nine business users of electronic communications services, including some large well known companies. We have also drawn on research conducted by the Communications Management Association (CMA), the European Commission (EC) and the Organisation for Economic Co-operation and Development (OECD).

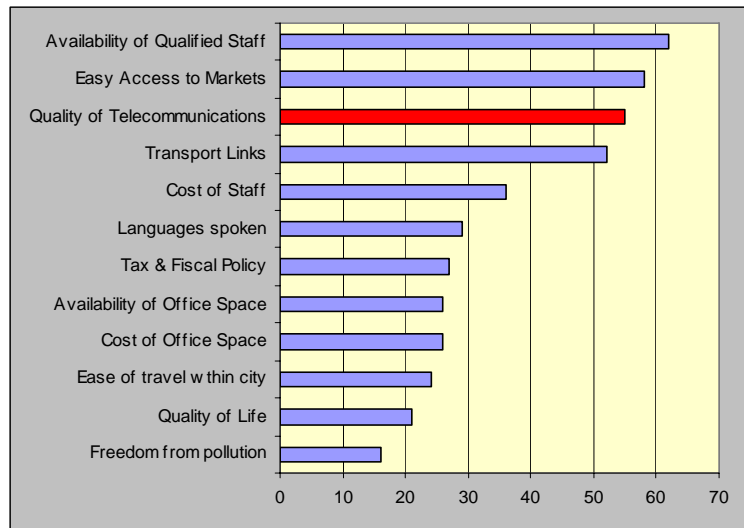
The remainder of this report is structured as follows. Section 3 describes the importance of telecommunications to businesses, both to help reduce their costs and to develop new products and services. In Section 4, we summarise the market outcomes for business customers along similar dimensions to those reviewed by Ofcom in Figure 4 of the first phase consultation document of the Telecoms Strategic Review (TSR). Section 5 discusses a number of specific issues where problems still exist in the market for business customers using the framework of the TSR. These issues are illustrated with case studies drawn from our interviews with UKCTA members and their customers. Section 6 concludes and sets out recommendations for action for the Department of Business, Enterprise and Regulatory Reform (BERR), Ofcom and Communications Providers themselves.

### 3. The Importance of Electronic Communications to Businesses

The electronic communications sector is an important contributor to the UK economy. Directly, the sector contributes around 2.3%<sup>3</sup> of Gross Domestic Product (GDP) with an industry turnover of £38.6 billion in 2006<sup>4</sup>. Indirectly, electronic communications services are a key enabler for businesses, helping firms in all sectors of the economy to reduce costs and innovate new products and services.

The importance of electronic communications to businesses is reflected in Communications Management Association's (CMA) 2006 "Communications in Business" report which found that 60% of respondents said that their companies' expenditure will increase over the following 12 months. It is also very important in location decisions by international companies. In a survey by the estate agent Cushman and Wakefield, 55% of respondents rated "the quality of telecoms" as absolutely essential when making location decisions. Telecoms quality ranked third behind "availability of qualified staff" (62%) and "easy access to markets, customer or clients" (58%)<sup>5</sup>.

**Figure 1: Importance of Telecoms**



The increase in expenditure underlines an increased dependency on telecommunications, whether that is simple voice communications with customers and suppliers; providing sales information from branches to the head office; or sharing data with collaboration partners. Firms which rely exclusively on electronic commerce to distribute their products and services are also entirely dependent upon communications for the operation of their business.

*"Our company-wide data communications network is critical – the salesforce cannot operate without it and if a site goes down we have to close for business until service is restored"*

*Medium Sized Consumer Durables Supplier*

In a service and knowledge based economy such as the UK, communications technology tends to be even more important than in a manufacturing economy. Service industries have a higher proportion of staff for whom communicating with business partners is a central part of their job. Consider, for example, the trading floor of a bank where traders may simultaneously be in voice communication with a client, receiving information feeds from Reuters or Bloomberg and be able to place a trade through a trading screen.

#### 3.1 Cost Reduction

Firms use electronic communications in a variety of ways to reduce the cost of supplying current goods and services. In preparing this report, we conducted qualitative interviews with nine UK firms to establish their use of electronic communications. Some examples of how firms reduce costs through telecommunications are described below:

<sup>3</sup> Source: Office of National Statistics

<sup>4</sup> Source: Ofcom *Communications Market Report 2007*

<sup>5</sup> Source: Cushman and Wakefield *European Cities Monitor 2007*

- A financial services company owns videoconferencing facilities and is currently expanding the use of these, although the company reported that cultural constraints limit the effectiveness of this technology. However, teleconferencing is much used and presentations by means of 'Net Meetings' have made a recent appearance in the company, with great success.
- The same firm suggested that a virtual call centre might be considered in the future when technology makes this a viable proposition. This would increase the scope for home-working, thereby reducing facilities costs.
- A national retailer told us that until recently most IT had been distributed to its shops with data transferred to head office overnight. However, this is set to change because management is seeking better information and there is a trend towards greater centralisation. A major driver for this change is cost saving.

Clayton<sup>6</sup> found that having employees use IT in general, as opposed to telecommunications specifically, has a significant productivity impact. He also found that the benefits of integrated or multiple electronic business process are different for manufacturing and service companies. Manufacturers gain mostly from strong procurement and supply chain management, whereas service companies gain mainly from links to customers. According to a report prepared by the UK's Office of National Statistics (ONS) for the OECD,<sup>7</sup> the effects on labour productivity are substantially larger when employees are broadband enabled<sup>7</sup>.

### 3.2 Innovation

Firms also use electronic communications to make and develop new products and services for their customers and to benefit through innovation. Some firms have developed entire business models around electronic communications or through complementing their traditional business model with channels only enabled by electronic communications. Amongst UK firms, high street retailers and financial service organisations for example, have developed strong Internet sales channels to operate alongside their physical presence.

Some recent market figures show the importance of digital sales channels:

- Official UK Charts Company data show that album download sales increased by 76% by volume in January 2008 compared with January 2007. Entertainment Retailers Association Digital estimates those sales were worth £4.5m.
- Online spending in the January 2008 sales reached a record high of over £4.5 billion according to the IMRG Capgemini e-Retail Sales Index. An equivalent of £74 was spent online for every person in the UK in January: a year-on-year increase of 75%.
- In the three months to January 2008, 45 percent of Internet users in the UK bought books online, followed by Videos/DVDs/Games (44%), Clothing/Accessories/Shoes (38%), Music (37%) and one in four Internet shoppers also purchased an airline ticket online<sup>8</sup>.
- The number of adults in the UK using online banking has increased by 174 per cent from 6.2 million in 2001 to 17.0 million in 2006<sup>9</sup>.

The engineering firm Arup describes how business connectivity spurs innovation<sup>10</sup>. They describe how the airport operator, BAA, set out to benefit from close collaboration between the CAD<sup>11</sup> teams in

<sup>6</sup> Clayton, T. (2006) *What can we tell from OECD economies about impact of ICT use on economic growth? Can we tell if the lessons are transferable to developing economies?* Notes for presentation to UNCTAD conference on ICT and development, 4 December, 2006.

<sup>7</sup> OECD (2006) *Broadband availability, Use, and Impact on Returns to ICT in UK Firms*

<sup>8</sup> All source: [www.internetretailing.net](http://www.internetretailing.net)

<sup>9</sup> Source: APACS Press Release 24<sup>th</sup> August 2007

<sup>10</sup> Arup Journal 1/2006

<sup>11</sup> Computer Aided Design

multiple companies working on the design of Terminal 5. This could only be achieved through the effective communications technology allowing the integration of chosen CAD software between the partners. This is typical of the way firms are using electronic communications to change their way of working, shifting from a vertical structure to a more horizontal arrangement in which businesses pool their skills and resources on a project by project basis. Without effective electronic communications, firms would not be able to achieve the level of co-operation necessary to work in this manner.

Given the importance of electronic communications to businesses in the UK, and therefore to the UK economy as a whole, how well is industry served by the market? This is the question examined in the remainder of this report.

## 4. Ofcom's Telecoms Strategic Review

### 4.1 Summary of the TSR

In 2004, twenty years after the start of the reform of the telecoms sector, the UK communications sector regulator, Ofcom, commenced its Telecoms Strategic Review (TSR) which reviewed how effectively the telecoms industry was serving both its customers and UK citizens generally. The TSR recognised that a properly functioning market is the most effective way to deliver the benefits of telecommunications to UK consumers and citizens.

In the TSR, Ofcom identified the following as characteristics of a well functioning market:

- choice: including different solutions for increasingly diverse consumers, high levels of innovation, and a diverse set of sustainable suppliers;
- price: quality services at competitive prices;
- information: informed consumers who are able to make well-informed choices; and
- low switching barriers: ease of switching between suppliers.

In a market with these characteristics supplier firms have the incentive both to reduce their costs and pass those reductions on to customers through lower prices, and to continue to innovate with new products and services.

The TSR went on to review the benefits to consumers from the UK telecoms sector. It found that competition and consumer outcomes were not uniform across all sectors of the telecoms market. Figure 4 on page 22 of the Phase 1 Consultation Document (reproduced overleaf as Figure 2) summarised the benefits to consumers across four market segments: fixed voice, Internet, mobile and corporate network services. Benefits were assessed using five metrics: price, quality of service and customer satisfaction, service choice, access to services and competition.

The TSR identified what it termed “enduring economic bottlenecks” where the market is not functioning properly primarily because in many areas of the country there was only one access network on which all competitors were dependent to provide service to customers. Thus in Figure 4, many of the weaknesses were associated with competitors’ reliance on BT infrastructure.

Ofcom concluded that “enduring economic bottlenecks” remain in fixed telecoms networks. It defined an enduring economic bottleneck as a part of the network where BT has Significant Market Power (SMP) and where effective infrastructure-based competition is unlikely to emerge in the medium term. In perhaps the most critical conclusion of the TSR, Ofcom found that competing providers who rely on BT for access “have experienced twenty years of:

- Slow product development;
- Inferior quality wholesale products;
- Poor transaction processes; and
- A general lack of transparency”<sup>12</sup>

To address these issues Ofcom proposed a set of seven regulatory principles, the first two of which were (i) to promote competition at the deepest levels of the infrastructure where it will be effective and sustainable and (ii) focus regulation to deliver equality of access beyond those levels.

To promote equality of access, or “equivalence”, Ofcom introduced the quasi-structural remedy of Functional Separation. Under this remedy, which was agreed to by BT through a set of Undertakings in lieu of a referral under the Enterprise Act<sup>13</sup>, BT was required to establish an Access Services Division, later branded Openreach, which would treat all downstream customers, including BT’s downstream divisions, on an equivalent basis.

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<sup>12</sup> *TSR Phase 2 Consultation Document*, para 1.19, page 10

<sup>13</sup> Ofcom *Final statements on the Strategic Review of Telecommunications, and undertakings in lieu of a reference under the Enterprise Act 2002* September 2005

At the same time as the implementation of Functional Separation, Ofcom also reviewed the Wholesale Local Access Market and conducted a review of the Cost of Copper and the treatment of risk in calculating BT's cost of capital. These reviews resulted in lower prices for unbundled local loops. In addition, the Office of the Telecoms Adjudicator was founded with a brief to resolve process issues to ensure effective unbundling of local loops.

**Figure 2: Ofcom's Assessment of the Benefits from Telecoms**

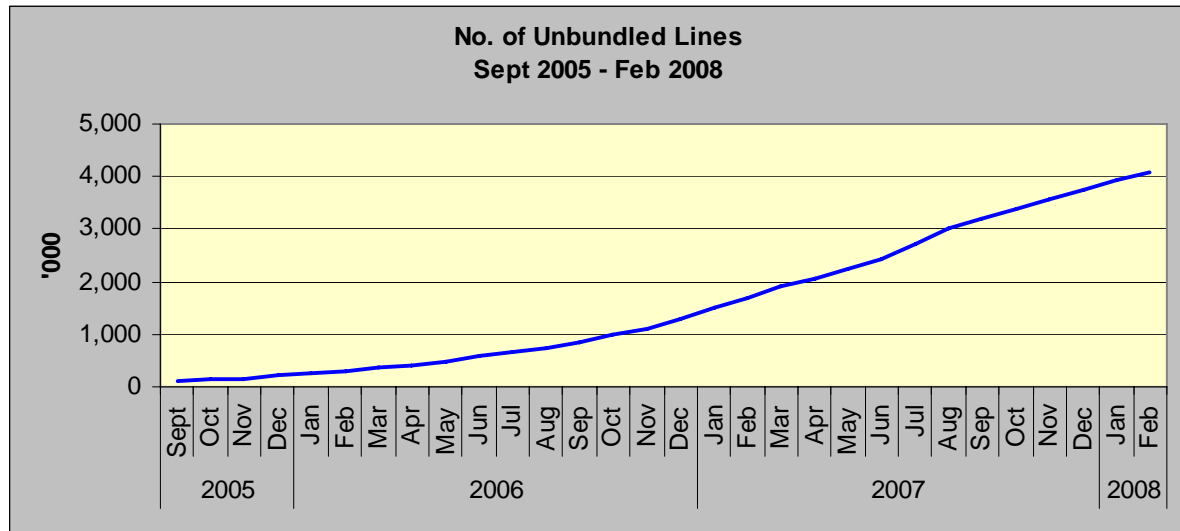
	Price	Quality of service and customer satisfaction	Service choice	Access to services	Competition
<b>Fixed voice telephony</b>	UK residential prices compare with other countries; business prices above average	Very high levels of SME and residential customer satisfaction; declining incidence of faults	Wide range of tariff structures and bundling options	Near ubiquitous take-up, only 1 per cent of households do not own either a fixed or mobile phone	More competition in calls and access lines than other countries. Much of the call competition is from service providers, using alternative long-distance networks. BT still provides most access infrastructure
<b>Internet</b>	Narrowband and entry level broadband prices compare well with comparable markets; higher broadband speeds more expensive	High satisfaction with broadband, lower satisfaction with connection speeds of narrowband	Full range of narrowband price structures. Some choice of broadband connection speeds, contention ratios, but flexibility in price structures only just emerging	Ubiquitous availability of narrowband. Broadband only available recently in many areas. Other areas need a 'trigger' level of demand in an exchange, and some households and exchanges not DSL enabled	Many service providers, but none with market shares over 30%. Infrastructure provision largely provided by BT and cable companies. Almost all DSL lines use BT's infrastructure
<b>Mobile</b>	Prices for pre-pay are lower than many other markets, and the UK is also relatively competitive in post-pay pricing	High overall satisfaction, although less satisfaction on cost and value for money, incidence of dropped calls improving	3G services starting to become available but slow roll-out by incumbent operators. A full range of 2G and 2.5G tariff packages and devices is available	Mature networks cover almost all population and all except remote areas. Near ubiquitous take-up amongst younger consumers; voice and text message usage increasing	High (licensing) barriers to entry at the network level, but the least concentrated market in Europe. Some new service provider competition, but many existing service providers now bought by network operators
<b>Corporate network services</b>	Published leased line prices are above the European average	High levels of overall satisfaction with suppliers and reliability of service; less so for value for money and customer service	These services are the key focus of many Altnets. Competition has encouraged development of bespoke and tailored solutions	Most large corporate businesses are using some form of data network service. They may be reliant on BT infrastructure for some services	At least six players with significant market share although BT still retains around half the market; more for lower capacity leased lines

Source: Ofcom

## 4.2 Impact of the TSR

Since the introduction of these remedies there have been significant improvements in both the take-up and access speeds available for broadband users. Figure 3 shows the rapid increase in unbundled lines since the Undertakings which implemented Functional Separation were signed by BT. In September 2005 there were 123,000 unbundled local loops in the UK<sup>14</sup>. Most competitive broadband access was via wholesale bitstream products, which gave little scope for differentiation, and on the two cable networks. By February 2008, the number of unbundled loops had increased to over four million, with a commensurate fall in the number of customers connected via wholesale bitstream, both absolutely and comparatively.

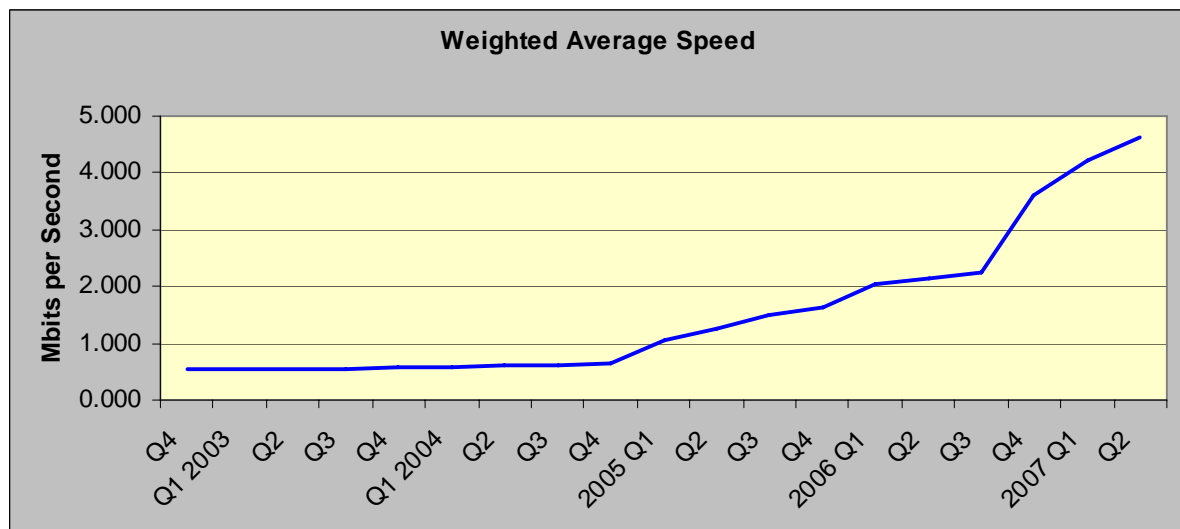
**Figure 3: LLU Lines**



Source: Office of Telecoms Adjudicator

The number of unbundled loops is not the only measure of success, however. Figure 4 shows the weighted average broadband access speed which has increased substantially from around 1.5mbit/s when the Undertakings were implemented to over 4.5mbit/s in the middle of 2007.

**Figure 4: Weighted Average Broadband Access Speed**



Data source: Ofcom

<sup>14</sup> Source: Office of Telecoms Adjudicator

The price of broadband access is also relatively cheap in the UK compared with other countries. Although calculating the price of broadband access is difficult due to the number of packages with different product characteristics available, the Organisation for Economic Co-operation and Development (OECD) calculates the weighted average price for each of its member countries. According to the OECD calculation, in October 2007 the UK had the fourth lowest price in the OECD and the third lowest in the EU. Only Finland, Germany and Switzerland had lower prices, in Purchasing Power Parity (PPP) terms<sup>15</sup>.

### 4.3 The Business Customer Market

Despite these successes, there is considerable concern amongst both suppliers of services to

*Ofcom is clinging to the hope that there is more competition than there is: BT is very dominant. It also has too much focus on meeting consumer service targets, ignoring the harder service targets required by businesses.*

*Multi-National Bank*

businesses and indeed amongst business customers, that regulatory remedies put in place by Ofcom do not address competition problems in the market<sup>16</sup> for business customers. Whilst many of the problems associated with product markets mainly aimed at residential consumers, e.g. broadband Internet access, have

generally improved, problems still remain in those product and services primarily used to supply business customers.

Figure 5 (overleaf) is based on Figure 4 of the TSR Phase 1 Consultation Document and summarises our assessment of the benefits enjoyed by, and problems affecting, business customers in the three fixed line segments of fixed voice telephony, Internet and corporate network services.

As with the TSR, Figure 5 indicates there is a mixed picture of the benefits of competition for business customers in the UK.

- Fixed voice is highly competitive, but UK businesses appear to pay more for a basket of calls than their peers in other EU and OECD countries.
- Broadband Internet access services for business have benefited from the Undertakings and the increased competition, though many companies report not being able to get broadband access where they want it.
- The weakest area is corporate network services where prices are higher than the EU average, customer satisfaction is poor and competition is restricted due to barriers to switching. There also appears to be a lack of SDSL service availability.

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<sup>15</sup> Source: OECD Broadband Portal

<sup>16</sup> “Market” here does not carry the meaning in competition analysis of a relevant market, but has the broader meaning of business customers in general.

**Figure 5: Summary of the benefits to business customers from the UK telecoms sector**

	Price	Quality of service and customer satisfaction	Service choice	Access to services	Competition
<b>Fixed voice telephony</b>	UK businesses pay above the EU average and prices for some types of business (SoHo and SME) are the most expensive in the EU (Source 12 <sup>th</sup> Implementation Report). 64% of companies are satisfied with <i>value for money</i> on fixed line services. (Source: Ofcom)	60% of companies are satisfied with the <i>quality of customer service or account management</i> with their fixed line services (Source: Ofcom)	Wide range of tariff structures and bundling options	Ubiquitous availability	Highest number of operators using Carrier Pre-Selection in EU. Highest proportion of customers using alternative operators for direct access (Source: 12 <sup>th</sup> Implementation Report)
<b>Internet</b>	3 <sup>rd</sup> Lowest prices for broadband Internet access in EU (Source: OECD).	Unknown	Wide range of technology and packages. However, SDSL is only available on a limited basis	BT claim near 100% coverage but 41% of businesses claim DSL not available where they want it (source CMA 2006)	Wide range of competitors based on DSL, bitstream, LLU and cable. Migration process reduces barriers to switching.
<b>Corporate network services</b>	Prices for leased lines of various speeds above the EU average (Source 12 <sup>th</sup> Implementation Report) 38% of companies satisfied with value for money of advanced data services	44% of companies satisfied overall with advanced data services.	Altnets offer a range of services and bespoke solutions, but choice tends to be greatest in urban areas	Most large companies use some form of data services though many complain about the lack of SDSL – 73% of companies say they can't get SDSL where they need it (source: CMA)	BT continues to have SMP in five of the eight Business Connectivity markets identified by Ofcom in its market review. Lack of a novation process increases switching costs for business customers.

## 5. Issues Affecting Business Customers

In this section we explore in more detail the issues highlighted in Figure 5 which suggest that the market for business customers is not functioning properly to the benefit of business customers. We do not report on “successful” areas, for example access to services for fixed voice telephony, where few competition problems appear to exist.

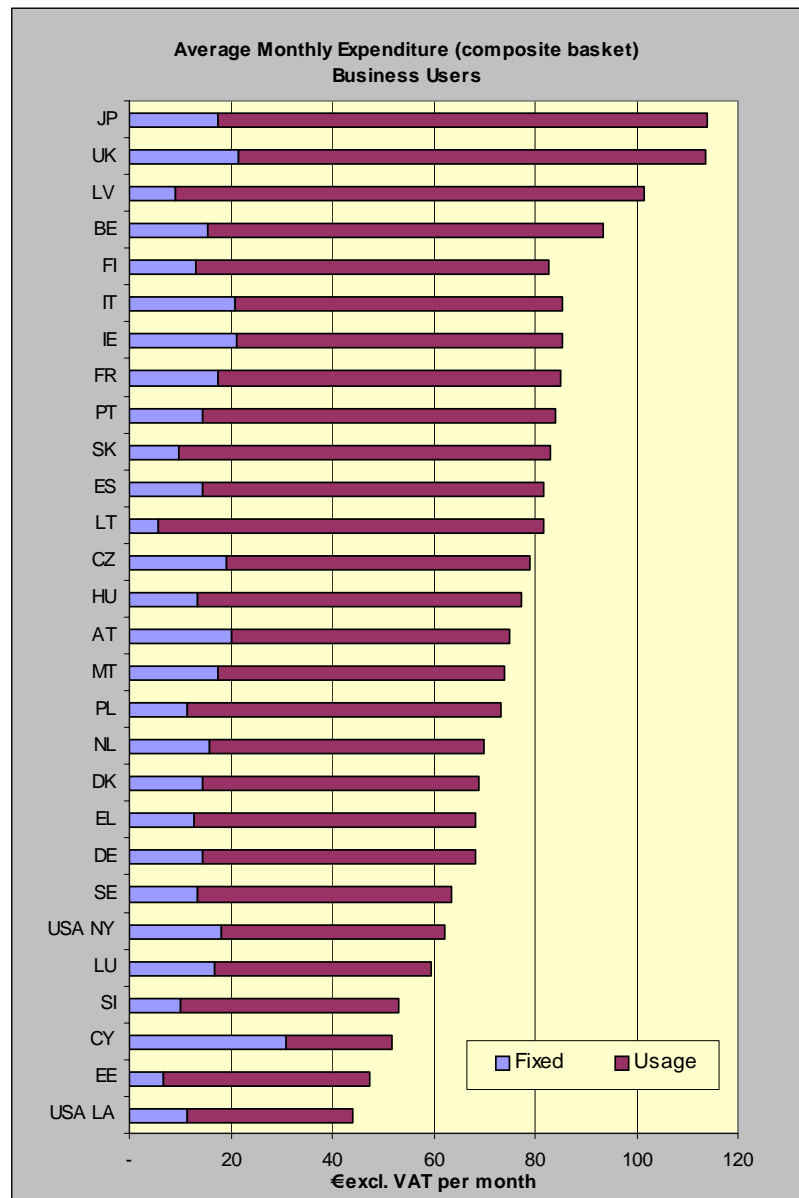
### 5.1 Fixed Voice Telephony

#### 5.1.1 Price

Each year the European Commission (EC) reports on the implementation of the regulatory framework in its annual Implementation Report. The most recent version is the 12<sup>th</sup> Implementation Report published in late 2007. In the Implementation Reports the EC reports on, inter alia, the basket prices reported by the OECD for business and residential customers<sup>17</sup>. There are a number of limitations to the baskets, primarily the prices used are the incumbents’ undiscounted rates, which means that they should be treated with caution. However, they do show the relative prices paid by customers across the EU and other selected countries. Figure 6 is taken from the 12<sup>th</sup> Implementation Report and shows that the UK has the second most expensive composite basket for business users. Only Japan has a more expensive basket.

The 12<sup>th</sup> Implementation Report also shows the SoHo basket as the most expensive amongst the comparator group and the SME basket as the fourth most expensive. By contrast, the UK is the 12<sup>th</sup> least expensive of the 28 countries reported for the composite residential basket.

Figure 6: Business Voice Basket Prices



Source: European Commission, 12<sup>th</sup> Implementation Report

Ofcom’s own research finds that only 64% of business customers declare themselves to be either very or fairly satisfied with the value for money of their fixed line services<sup>18</sup>.

<sup>17</sup> The OECD basket methodology assumes the same number of calls across distance and time of day gradients for each country. Destination of international calls are specific to each country and based on actual calling patterns.

<sup>18</sup> Ofcom *Large Business Use of Telecoms Services: Research Report 2006* Figure 5

### 5.1.2 Quality of Service and Customer Satisfaction

Quality of service remains an issue for many customers. The Ofcom large business customers study found that 60% of large businesses were either very or fairly satisfied with the quality of customer service received<sup>19</sup>. Eighteen percent of customers were either very or fairly dissatisfied.

In our research amongst a sample of UKCTA customers we found several reported problems with customer service from all their suppliers. One respondent, a technology solutions provider, told us that his company has moved away from the traditional range of telecoms services, because:

1. Lack of resilience: there are too many PSTN outages for an operation like theirs which relies heavily on call-centres.
2. Price.

The respondent believes that telecoms companies in general under-perform: they over-promise, their delivery is poor and, in particular, billing is poor. He criticised BT's account management and engineering as being so "terrible" that the company is removing all BT services and products from its infrastructure: both retail and wholesale.

Another interviewee, a large retailer, told us of one recent incidence when all exchange lines to a store were down for five days (despite a four hour SLA), with BT and the Communications Provider in dispute regarding its cause and resolution.

Whilst it is difficult always to identify the source of dissatisfaction with customer service, the lack of effective Service Level Agreements between BT as a wholesale supplier and alternative communications providers appears to be a possible cause. As poor customer satisfaction was primarily raised in relation to data service, we will return to this issue later in this report.

#### **Number Translation Services**

A cause of dissatisfaction raised by several business customers and CPs was the introduction of new regulations governing 0870, 0871 and 070 pre-call announcements. Although Ofcom's motive of consumer protection was generally regarded as laudable, the way in which the proposals were introduced and withdrawn was seen as particularly damaging.

In April 2006, when Ofcom published its document "NTS: A Way Forward", it sought to confront the problem that consumers faced considerable uncertainty about the price they would have to pay for calling 0870, 0871, and 070XX numbers. It therefore sought to provide consumers with better information. Whilst Ofcom was seen as justified in wanting to address the question, it appears to have forgotten that the market for NTS consists not just of residential consumers and communications providers, but also of business customers who use these numbers to provide services to customers.

*"We have been disadvantaged directly by Ofcom in the way that number changes have been handled. Changes to geographic numbering have been costly (e.g. reprinting promotional material) and the forthcoming changes to non-geographic numbers, such as 0870, will have similar impact."*

*Large Retailer*

*NTS: A Way Forward* made several proposals regarding the regulations of 0870, 0871 and 0845 numbers. Specifically Ofcom proposed:

- Restoration of the geographic link for 0870 numbers such that calls should cost no more than national calls from the same Originating Communications Provider (OCP);
- OCPs wishing to charge more would need to make a pre-call announcement providing information on the call charge;

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<sup>19</sup> Ibid Figure 4

- 0871 numbers to come under Premium Rate Service (PRS) regulatory framework from Phonepay Plus (PPP - formerly ICSTIS). Ofcom proposed that PPP “brands” regulation differently to prevent confusion with PRS by consumers;
- Proposals due to come into effect in 1st February 2008; and
- Two year review of 0845 numbers.

Many of these proposals were understandable from the perspective of consumers, perhaps especially the lack of transparency of tariffs. However, the proposals also had a number of implications for the business customers who use NTS numbers for access to call centres and to provide services such as conference call bridges.

Of particular concern to business customers was that under Ofcom’s proposal revenue sharing would no longer be available on 0870 numbers. The revenue generated from these calls is used to fund the provision of services to customers, e.g. conference bridges, reporting and so on. To continue to provide these services, business customers would either have to switch to an 0871 number or recover costs through some other means. If the business decided to use an 0871 number, then it would be forced to comply with PPP’s 11<sup>th</sup> Code of Conduct. The Code of Conduct was established to protect consumers against excessive behaviour of some PRS providers and so is seen by some as disproportionate for businesses who use 0870 as a number to access their services.

#### **Case Study 1**

A financial services company, which provides services to retailers, reported that changes to 0870 numbers are causing problems for the company and gave more details about the implications for its businesses.

The company uses a 0870 number for retailers to contact its call centre and there is a desire to protect the income from revenue sharing, which at least part funds the cost of the call centre. Under the new regime the consumer fee for dialling a 0870 number will be the same as for a geographic number (roughly 3p/minute instead of 8p/minute). This would mean that all of its share of the income would disappear and, in fact, would be replaced by a small handling fee. These costs will have to be recovered through some other means if the existing 0870 numbers are to be retained.

The company is still reviewing its approach to a new number range and will take regulatory guidance from Ofcom before making any changes. However, if number range changes are instigated, this is a substantial logistical project, with risks and uncertainties, since it has many knock-on effects, including:

- Potential re-issuing of plastic cards, on which the call centre contact number is printed;
- Re-printing the majority of marketing materials;
- Changing websites;
- Re-programming stores’ speed diallers;
- Software changes;
- Re-printing of other collateral; and

The respondent’s impression is that Ofcom and PPP were taking an over simplistic view - simply changing the fees for all 0870 numbers, which does not take into account the diverse and integrated use for the number range. The company recognised the potential problem for consumers and Ofcom’s obligation for consumer protection. It therefore suggested that one way forward could be to introduce a more stringent “licensing” system, which would exclude those companies who abuse the revenue sharing arrangement.

A second issue arising from the same proposed changes concerned pre-call announcements where the price of a call is above the national call charge. In September 2007, Ofcom proposed a change to General Condition 17 which would require OCPs charging more than 20p per minute or per call to provide a pre-call announcement advising the caller about the price. Some OCPs pointed out that such a requirement would have an adverse effect on services designed for vulnerable people who

can instantly call for help in the event of a fall. These services make use of 070 numbers and would not work with a pre-call announcement.

On 14<sup>th</sup> November 2007, Ofcom wrote to the NTS Focus Group, announcing that the changes planned to come into force on 1<sup>st</sup> February 2008 would be postponed whilst Ofcom considered, in particular, the problems concerning automatic diallers and pre-call announcements. However, no date was given for when the regulation would come into force.

The concern amongst CPs is that the proposed changes and then the postponement with no new date for implementation give the impression to customers that the industry does not know what it is doing. Some CPs had put into place a formal communications programme to their customers to inform them of the changes and now need to return to them to advise that there is a delay and possibly a change in the process. These CPs reported that they feel embarrassed about having to return to their customers to update them on the position, especially as they do not have an alternative timetable for any changes.

Overall, the changes Ofcom planned to introduce are seen as an unnecessary cost for businesses. As the case study in this section shows, there are a number of re-printing and other communications costs a business has to incur when a number is changed. If these costs are incurred unnecessarily then they represent a drain on business resources. For CPs the delays and possible changes from the original proposals damage their reputation even though they are not responsible for these delays and changes.

The perception amongst both business customers and CPs is that this situation came about because Ofcom was understandably focused on potential harm to consumers and this led them to ignore the legitimate interests of business users of 0870 type numbers. Ofcom was advised in some responses to their consultations on the subject about the possible detrimental effects but appear to have ignored these comments. Whilst Ofcom cannot be blamed for wanting to protect consumers, the perception is that this led them to be blinkered in their thinking, or as one business customer interviewee said, to come up with a “knee-jerk response”.

## 5.2 Internet

### 5.2.2 Prices

In contrast to voice telephony, Internet prices in the UK are amongst the lowest in the OECD countries. Figure 7 (overleaf) shows the average broadband access prices in the OECD. The UK has the fourth lowest prices in the OECD and the third lowest in the EU.

The low prices enjoyed by Internet users in the UK are likely to be the result of a properly functioning market in which customers can have access to a range of competitive products and competition provides firms with the incentive to reduce prices to win and retain customers.

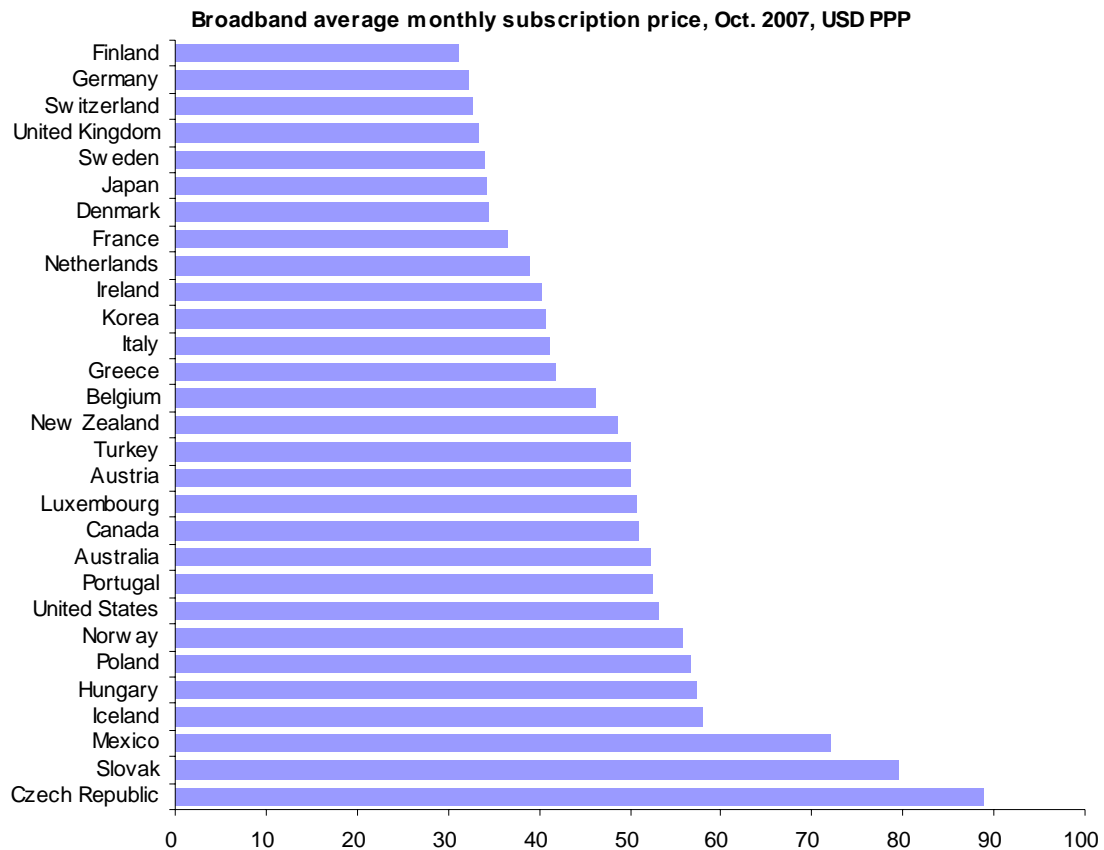
### 5.2.3 Access to Service

Following the TSR much of Ofcom’s attention has been concerned with establishing a competitive market for asymmetric broadband and a fit for purpose LLU option. In this it has been largely successful. Ofcom’s data show that 99% of households can access the Internet via broadband (ADSL), 67% via LLU and 46% via cable<sup>20</sup>. However, once again there is concern that whilst the focus on residential oriented broadband is necessary, the needs of business customers seem to have been largely forgotten.

*“We would like to use ADSL as the primary means of connection for low bandwidth devices like remote ATMs. However, the poor service levels associated with ADSL means that we are unable to consider this option.”*  
High Street Bank

<sup>20</sup> Ofcom *The Consumer Experience: Research Report 2007*

**Figure 7: Average Broadband Monthly Subscription**



Source: OECD Broadband Portal

The experience of business customers questions the availability of broadband and suggests that the quality of broadband Internet is inconsistent across the country. The Communications Management Association (CMA) "Communications in Business 2006" survey found that 41% of business respondents to their survey said that their own business or public sector organisation still could not get broadband where they needed it, although this had reduced from 54% the previous year.

We accept that the results of the CMA survey do not reflect the situation as known to UKCTA members and as reported by BT. However, when interviewing customers for this project a number reported that even where ADSL is available, it is not always fast enough or robust enough for their needs.

**Case Study 2a**

The interviewee in a large bank told us that Ofcom is too focussed on meeting residential consumer service targets, ignoring the harder service targets required by businesses. The bank has many workers who are based at home or who work from home regularly. Because of an inconsistent presence from all broadband suppliers (other than perhaps BT) the company cannot restrict the number of suppliers it deals with as much as it would like to. There is also a very great variation in real speeds (because of distances from exchanges, etc.).

**Case Study 2b**

A large, national retailer shared the bank's frustration with the lack of availability of SDSL and the variable quality of ADSL. It needs to replace its current ISDN circuits and would like to install SDSL. However, in many cases SDSL is not available at all, and in rural areas (where it has many shops) ADSL is not available at the bandwidth required due to distance from the exchange.

### 5.3 Corporate Network Services

The area where both independent data and the findings of the research conducted for this report find competition to be weakest in the UK is, perhaps surprisingly, in corporate network services.

#### 5.3.1 Price

##### *Leased Line Prices*

Leased line prices in the UK are above the average for the European Union. Figure 8 shows the UK price compared to the EU mean for the four bandwidths and two distances reported in the 12<sup>th</sup> Implementation Report.

**Figure 8: UK Leased Line Price Compared with EU Mean**

Bandwidth	Distance	EU Mean	UK	UK as % of EU Mean
64 kbit/s	2km	2,124	2,788	131%
	200km	5,759	7,092	123%
2 mbit/s	2km	7,683	5,636	73%
	200km	32,655	43,911	134%
34 mbit/s	2km	31,814	48,650	153%
	200km	194,754	305,547	157%
140/155 mbit/s	2km	62,548	145,429	233%
	200km	352,317	872,717	248%

Source: European Commission 12<sup>th</sup> Implementation Report

With the exception to 2mbit/s circuits over 2km, the UK has prices for leased lines ranging from 123% of the EU mean to 248%. It is concerning that whereas the potential for competition may be thought to increase with bandwidth, the most expensive services, relative to other EU countries, are the highest bandwidth.

Given these prices, it is perhaps not surprising that in its 2006 survey of large business customers, Ofcom found that only 38% of companies surveyed were very or fairly satisfied with the value for money of advanced data services and 19% were very or fairly dissatisfied<sup>21</sup>.

The lack of competitive prices in the UK was highlighted by one of our interviewees.

#### **Case Study 3**

The company provides specialist financial and loyalty services to retailers, mainly to High Street chains, and their customers. One such product is a store card, where typically the customer will complete an application form in the store and then the sales assistant would telephone details though to a call centre for approval. Thereafter, all or most communication would be between the consumer and the financial services provider.

The company operates an X.25 network and a number of leased lines (LES circuits). Although the company is reasonably satisfied with X.25 and LES and reported recent price reductions, it will soon acquire an MPLS link into its main European network. One reason for this is to pilot new collaboration software suite across the Group. The MPLS connection will be procured in Denmark, since it has been discovered that it is cheaper to buy it from there than to make the purchase of an identical service to Denmark from the UK.

<sup>21</sup> Ibid Figure 27

One possible reason for business connectivity prices being high compared to the EU average is that BT has been able to earn a return above its Weighted Average Cost of Capital (WACC) for cost oriented products primarily aimed at business customers. Figure 9 is an analysis of BT's 2006/07 Regulatory Accounts (Current Cost Accounting – CCA), showing the turnover and profitability of Business ISDN2, PPCs and Ethernet. These three products earn a total Return on Mean Capital Employed (RoMCE) of 16.9%. This compares with BT's regulatory WACC of 11.4%.

**Figure 9: Analysis of BT Regulatory Accounts**

£million	Bus ISDN2*	PPC	Ethernet	Business oriented products
Turnover	191	1,184	298	<b>1,673</b>
External	36	362	88	<b>486</b>
Return (CCA)	63	300	127	<b>490</b>
MCE (CCA)	318	1,943	630	<b>2,891</b>
RoMCE	19.8%	15.4%	20.2%	<b>16.9%</b>
Return on Turnover	33.0%	25.3%	42.6%	<b>29.3%</b>

Source: BT

Prices which earn a return in line with WACC are normally regarded as being the “competitive” price, that is the price that would be set in a competitive market, whilst prices above cost indicate some degree of market power. Where a firm has market power at the wholesale level and is able to set its prices above cost, retailers are likely to have to pass those higher costs onto to customers, resulting in end user prices above the competitive level.

### **Accommodation**

Accommodation services emerged as an issue which, though largely invisible to customers, has a negative effect on the services CPs can provide and the prices they charge.

Under various regulations, BT is required to house CP's equipment in their exchanges. Three accommodation products (“co-mingling”, “Net-Locate” and BTLocate) are provided by a combination of BT Wholesale and Openreach.

- Co-mingling, provided by Openreach, is used for housing CP's LLU equipment only. This means it can only be used to terminate incoming traffic on fully and partially unbundled *metallic* loops. It is priced on a per-exchange basis and provided under the regulations set by Ofcom's Wholesale Local Access Market Review<sup>22</sup> as a technical area associated with unbundled metallic paths. Since the TSR and the signing of the Undertakings, Co-mingling has been provided on an Equivalence of Input (Eol) basis.
- Net-Locate is provided under Section 7 of the Undertakings and is for other services that require CP's equipment to be housed in the exchange, e.g. termination of fibre loops. The price of Net-Locate is averaged across the whole country and was reported to us by UKCTA members as being between three and ten times higher than Co-mingling. Net-Locate may not be used for LLU, but is also provided under Eol terms, except that space is only made available to other operators after BT's needs have been taken into consideration (Undertakings Article 7.2).
- BTLocate is a commercial product provided on an unregulated basis. Whereas Net-Locate can only be used for aggregation of multiple customers, BTLocate (what is Com-Locate?) can be used for a single customer. As an unregulated product, BTLocate is not provided on Eol terms.

<sup>22</sup> Explanatory Statement and Notification August 2004

The primary problems for providers of services to business customers is that they are unable to benefit from economies of scale in local exchange buildings and may find that there is no Net-locate space available.

#### **Case Study 4**

An UKCTA member told us of an occasion when they had spare Co-mingling capacity in an exchange which they could not utilise for purposes other than LLU. To provide a non-metallic path service to a customer the CP was forced to take BTLocate space in the same exchange, at a considerably higher cost which was passed onto the customer. The CP was not therefore able to benefit from economies of scale and the customer had to pay more than was necessary.

As the case study indicates, the provision of exchange space under different costs and different products means that the CP is not able to benefit from economies of scale and scope. These additional costs have to be recovered from business customers or absorbed by the CP, reducing its profitability. Business customers, who are almost exclusively the users of services provided with Net-Locate as a wholesale input, therefore pay higher prices unnecessarily.

We understand that the CP subject to Case Study 4 has raised the issue with BT and submitted a Statement of Requirement and escalated the problem to the Director of Regulation at BT Openreach. The CP has also informed Ofcom, though not formally.

#### **5.3.2 Quality of Service and Customer Satisfaction**

The Quality of Service (QoS) offered by CPs is of critical importance to business customers, in particular for those companies for whom electronic communications is mission critical. As reported in the introduction to the section on the importance of telecoms to business customers, one interviewee for this project told us if their network is unavailable the company almost has to close down until the network is restored.

It is therefore very concerning that satisfaction with service quality for advanced data service amongst large customers is lower than for both voice and mobile. Ofcom report only 44% of large businesses to be very or fairly satisfied and 17% very or fairly dissatisfied<sup>23</sup>.

Most of the business customers interviewed as part of this research complained to a greater or lesser degree about the quality of service received from their supplier. It is impossible for us to tell whether or not this is due to poor service from the CP irrespective of the wholesale service or as a direct result of a poor wholesale service which it “passed through” to the client. The Service Level Agreement (SLA) and Service Level Guarantee (SLG) between Openreach, BT Wholesale and the CP are largely invisible to customers. However, nearly all the business customers interviewed for this project identified poor service as a weakness.

The larger, more aware businesses considered the problem to be both their CP’s and BT’s as, in general, the wholesale provider behind the CP, though at no point did they specifically blame the lack of a SLG between BT and the CP. In one instance, a respondent stated that his company was planning to move all their business away from BT including wholesale inputs provided by BT to a CP.

The Telecoms Manager of a large bank was fully aware of the problems of SLA/SLG between BT and CPs. He told us that Ofcom appears unwilling to intervene in matters which are not in the public eye. For instance, it acts swiftly and strongly in instances like the recent premium-rate phone-in “debacle”, but it has taken two years to address the failure to incorporate a meaningful SLA and SLG regime in the undertakings that established Openreach. Another large bank was even more concerned about the generally poor quality of service.

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<sup>23</sup> Ibid Figure 26

### **Case Study 5**

An international high street bank with a telecoms infrastructure that comprises several networks, sourced and operated semi-autonomously, told us of its concerns with service quality.

Most of the bank's networks are now all-IP with some old ATM services which are being migrated to Gigabit Ethernet. Key services are always dual sourced from separate suppliers, taking care that they do not share the same fibre or ducts.

The interviewee is largely satisfied with SLAs and SLGs from all providers. However, the company does experience more outages than he would like to see - and certainly more than the company's US subsidiary.

He also referred to "technical solutions which do not find their way to market very readily". First in the respondent's list of services which are not available but which should be is SDSL. Asked why he thought this was the case our respondent said he understood that if SDSL were to be provided then BT Retail would not be able to sell it at a price as low as rivals - and so they (BT) choose not to supply it.

The bank is currently reviewing the location of its core data centres. Although the primary criterion for deciding where to site them in the future is to choose the best location (shortest links, disaster recovery considerations, etc.), other factors like quality of networks and service also come into it. We were told that the UK does not, at the moment, lose out because of what the bank sees as the UK's inferior telecoms infrastructure, but that might change in the future.

In September 2007, following unsatisfactory negotiations between CPs and Openreach regarding SLA and SLG, Ofcom was asked to intervene and to consider imposing additional regulation on BT. On 10<sup>th</sup> December 2007, Ofcom issued a Consultation Document "Service Level Guarantees: Incentivising Performance" with a final statement issued on 20<sup>th</sup> March 2008.

We do not in this report wish to make specific comments concerning the SLG Consultation: UKCTA members have jointly and individually commented prior to the closing date. Nevertheless, some comments need to be made regarding SLAs and SLGs in relation to business customers. The SLA/SLG consultation was largely focussed on the products and services supplied to residential consumers and, whilst there may be some beneficial effects for business customers, there is still room for improvement.

In particular the amount of compensation to be paid by BT to CPs in the event of a failure may not adequately reflect the loss suffered by business customers in the event of a service failure. For example, whilst the non-availability of a WLR or DSL line may be inconvenient for residential customers, it could have serious financial implications for business customers who rely on telecommunications. It should be remembered business customers do not only use ADSL for Internet access, as a residential consumer does, but also for business connectivity applications, such as access to Virtual Private Networks (VPNs).

Further, the compensation to be paid is based on the average CP's loss with a mechanism to allow CPs to claim additional losses in the event that the average does not adequately compensate them. This process could adversely affect CPs supplying business customers for whom the cost of an outage may be significantly greater. CPs may not have the resources to peruse additional claims nor may they want to if it requires disclosing to BT information to substantiate the loss which the CP regards as confidential.

The UKCTA response to the Ofcom consultation on SLA/SLG concludes by stating that Ofcom needs to continue to raise the overall quality and resilience of BT's network rather than only concentrating on ensuring compensation is paid for faults that occur. We can again see the importance of this requirement by referring to the interviewee for whom a network outage brings to a halt the entire business. For such business customers financial compensation can never be adequate to cover their

losses. By comparison, a residential user of, for example, ADSL, may be adequately compensated by a small payment.

### 5.3.3 Access to Services

Despite claims by BT that 99.6% of households can get access to broadband (ADSL), the access to corporate data services was raised by many respondents as a major concern, in particular the lack of an SDSL product at a price and with a level of quality of service that makes it competitive with leased lines.

The Communications Managers Association's (CMA) survey of business communications in 2006 found that 73% of respondents wanted SDSL but could not get it where they wanted it. This data was backed up by interviews conducted for this project.

#### **Case Study 6**

A well known, national retailer with 300 large and 1,200 smaller sites, told us that the introduction of 21CN means that BT is forcing ISDN users to move to ISDN2. For this user, with 300 sites, it is an unnecessary expense. The company would prefer to move to a DSL solution but none, specifically SDSL, is readily available.

Further, many of the smaller stores are in rural locations - so DSL might be very limited in speed owing to distance from the nearest exchange. He also told us that there is usually no route diversity for any DSL solution, causing a resilience problem.

BT Wholesale provides an SDSL service, BT IPStream Symmetric at speeds of up to 2mbit/s only at enabled exchanges. There are currently 809 SDSL enabled exchanges<sup>24</sup> which cover an estimated 40% of business premises. The provision of wholesale SDSL contrasts markedly with the provision of wholesale ADSL. In total over 5,400 exchanges are enabled for ADSL allowing over 99% of households to access broadband over ADSL.

Crucially, the service level provided by BT is the same as for other wholesale DSL services and therefore substantially below the equivalent QoS levels offered by Partial Private Circuits (PPCs), for which SDSL is in other respects an efficient substitute. So, whereas a PPC or wholesale leased line comes with a Service Level Guarantee (SLG), no SLG is offered for IPStream Symmetric. Instead the QoS levels offered for IPStream Symmetric are the same as for ADSL: a best efforts service meaning repair times can be several days.

Despite this substantially poorer service, we were told by CPs that the price of IPStream Symmetric is only around 10% lower than the equivalent PPC.

For business customers this means that to obtain the QoS levels required, they have to buy a leased line when a SDSL connection would adequately meet their needs, provided that it came with an adequate SLG.

#### **Case Study 7**

A high street bank, with over 1,500 branches in the UK, told us that good electronic communications is a business imperative. Services via the Internet to all customer groups - personal, SMEs and corporates - are increasingly critical.

The core network is an MPLS VPN besides which there are:

- Internet interconnections
- third-party interconnects (e.g. to link business partners, service and information providers);
- ADSL (particularly for home-working and as a back-up mechanism);

<sup>24</sup> Source: [www.samknows.com](http://www.samknows.com)

- dial-up (merchant terminals).

The interviewee identified a number of weaknesses with the access to new services in particular:

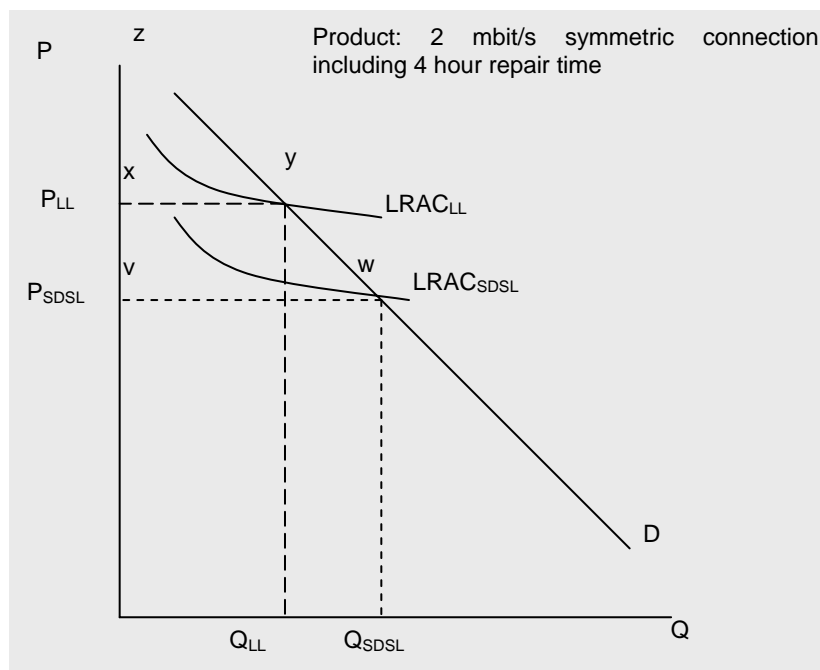
1. Poor service levels and lack of innovation delivered by Openreach.
2. The lateness of 21CN - pushing back the delivery of Ethernet over copper.
3. ADSL2 delays - for back-up infrastructure.
4. The lack of SDSL - "BT is doing nothing with it".

The interviewee believes that BT, as the monopoly provider, chooses what is made available and when to optimise its own commercial position, for the benefit of its shareholders - for which, according to the interviewee, it cannot be blamed.

He gave as an example the introduction of a good SDSL or ADSL service, claiming that these would decimate BT's profitable PPC (Partial Private Circuits) business. The poor service levels, especially for enhanced performance, means that the bank is unable to consider DSL as a primary means of connection for low bandwidth devices like remote ATMs.

The bank is therefore forced to purchase expensive PPCs when it would much rather move to SDSL or ADSL which the bank would regard as an effective and lower cost substitute.

**Figure 10: Consumer Welfare**



There is a clear cost to businesses if they are forced to buy a more expensive product than an equally efficient, but lower priced substitute. Economically, customers suffer a welfare loss. In Figure 10 we show how the introduction of a lower cost SDSL substitute for leased lines would enhance consumer welfare. Initially, (at time  $t_0$ ) only a Leased Line product is available with cost  $LRAC_{LL}$  (where  $LRAC$  = Long Run Average Cost). Assuming price ( $P$ ) is set where the cost curve intersects the demand ( $D$ ) curve, then consumer welfare will be represented by the triangle  $xyz$ . In a normally

competitive market either the incumbent or an entrant would be expected to offer SDSL as a substitute, if it could meet customers' expectations at a lower cost. In the diagram the cost of SDSL is represented by the curve  $LRAC_{SDSL}$ . At a lower price, customers would be expected to buy more connections and so consumer welfare would increase to the triangle  $vwz$ . However, where the incumbent supplier of Leased Lines is not incentivised by either competition or regulation to introduce an SDSL alternative, customers are forced to continue to buy the more expensive product.

Further upstream in the supply chain is Local Loop Unbundling (LLU), and it is reasonable to ask why LLU Operators (LLUOs) do not supply a wholesale SDSL service to compete with BT IPStream Symmetric.

Our research indicates that the QoS levels offered with Metallic Path Facilities (MPF) do not allow LLUOs to offer such services without taking an unacceptable level of risk. BT offers an "Enhanced

Care” package for MPF which provides a repair time of 20 hours in the event of a fault<sup>25</sup>. However, this compares with a four hour repair time offered for PPCs. For the LLUO to provide equivalent service it would therefore have to take the risk that BT would repair sufficient local loops within four hours that it would not make a loss on the proportion of repairs that take between four and five hours. Whilst we were unable to ascertain what proportion of repairs are within the four to 20 hour window, it is clear from the fact that no LLUO commercially offers a wholesale SDSL service<sup>26</sup>, that the difference in repairs times is considered too risky, especially given that most LLUOs are primarily focused on the larger (in volume) residential market for which longer repair times are acceptable.

There are also other costs associated with providing a business grade version of DSL access which may make it less attractive for a competing CP. For example, the CP would need resilient backhaul the common cost of which could be spread across fewer products than is the case for BT.

### 5.3.4 Competition

According to Ofcom’s Business Connectivity Market Review (BCMR)<sup>27</sup>, BT continues to have Significant Market Power (SMP) in five of the eight markets identified by Ofcom. Whilst there are several suppliers of communications services to business customers, one of the major barriers to the development of a properly functioning market for corporate network services identified by our research is the difficulty companies face switching suppliers. This problem has also been identified by Ofcom. According to Ofcom’s research, whilst 62% of large businesses have switched supplier, 37% reported switching to be very or fairly difficult, against 32% who found it very or fairly easy<sup>28</sup>. Our research indicates that the lack of a suitable novation process and the residential consumer focus of migration are barriers to switching.

#### **Contract Novation**

Novation is a term used in contract law and business law to describe the act of either replacing an obligation to perform with a new obligation, or replacing a party to an agreement with a new party. In contrast to an Assignment, a novation must be agreed upon by all the parties to the original agreement.

Since the TSR and then implementation of the Undertakings, a number of concerns have arisen regarding contract novations. Prior to the implementation of the Undertakings, we understand that BT Wholesale had established a retail novation process for leased lines which was subsequently extended to include Ethernet circuits. The process was reported to us as working reasonably well.

However, following the TSR responsibility for wholesale Ethernet circuits was transferred to Openreach and, according to one CP, at the same time BT Retail and BT Global Services appeared to have taken a decision not to honour the established novation process for Ethernet services. Several CPs told us that the lack of an in-life migration product means that companies find it much harder to compete for new business from large corporate customers without the customer going through the “cease and re-provide” process which is inefficient, time consuming and costly.

CPs have written to Ofcom setting out their concerns with the lack of a fit-for-purpose novation process and at least one CP, in correspondence we have been shown in confidence, set out the cost to their business and the names of customers who have been affected by an agreed novation process not being honoured. Case Study 8 is an extract from a letter written by a customer of an UKCTA member to Ofcom, with references to the customer and supplier removed to protect confidentiality.

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<sup>25</sup> Openreach offers Enhanced Care Plus on Demand which attempts to repair faults within five hours, but with no associated SLG. An improved ‘premium care’ product is under discussion with Openreach

<sup>26</sup> We understand that one LLUO does offer SDSL wholesale but the terms are less attractive than BT’s.

<sup>27</sup> Published 17<sup>th</sup> January 2008

<sup>28</sup> Ofcom op cit Figures 23 and 24

### **Case Study 8**

Following a detailed evaluation of options, [the client] made a decision in February 2007 to novate its existing LES Circuits Infrastructure provided by BT to a WEES Circuits Infrastructure from [CP]. This decision was made as a result of the Ofcom regulatory changes of November 2006, and was in line with the established BT novation process for leased line circuits. This was also in line with similar novation processes undertaken by a number of other [clients].

Following the conclusion of the new agreement with [CP], we were notified by BT of their refusal to agree to the novation process in early March 2007. It now appears that BTR/BTGS<sup>29</sup> have taken a decision to renege on the previously accepted novation processes for Ethernet services. This was undertaken without any reasonable notice, thus removing the ability for customers such as ourselves to novate even though the process had already commenced. As a result, [client] is not able to avail ourselves of the financial savings available through evidenced competition.

Since March 2007, there has been no identifiable progress in this matter despite some considerable correspondence and meetings between all relevant parties. This stance is creating constraints to [client] in that we are unable to upgrade key circuits where there are operational requirements, until there is a resolution to the issues identified. This is having a negative impact on major projects such as [project], in that our current infrastructure is becoming unable to cope with an increased demand for the [client's] data and voice applications carriers.

The lack of an effective in-life novation process contrasts with the position with regard to migration of broadband circuits where a process has been established to ensure the quick and efficient migration of customer circuits from one supplier to another.

We understand that Ofcom has, at least informally, indicated that it accepts that there is a problem with novations which is negatively affecting competition. However, in contrast to the migration of a residential or small business consumer from one CP to another, little has been done to ensure efficient novation of contracts. The result is that business customers either do not switch between suppliers or they incur more cost to do so. This means that the degree of competition between suppliers for business customers is inevitably reduced and overall costs to UK plc unnecessarily increased.

### **Broadband Migrations**

Migration refers to the transfer of a customer from one to CP to another and has been highlighted as a concern by all parties. In April 2006 Ofcom launched a review of broadband migrations following an increasing number of consumer complaints about the process received during 2005 and published a consultation document in August<sup>30</sup>. The consultation was followed in December by a Statement setting out new regulatory conditions. In line with the characteristics of a properly functioning market described in the TSR, Ofcom noted in the Statement (para 1.4) that *"it is vital to support consumers' ability to migrate between products and providers – so that customers can consider available options and change their broadband service or provider when they want to"*.

The principal action taken by Ofcom as a result of the review of broadband migrations was the introduction of a new General Condition 22 (GC22) which had two main elements:

- a requirement on all Communications Providers to comply with the Migration Authorisation Code (MAC) process; and
- where the MAC process does not apply, a requirement on all Communications Providers to comply with a number of high-level obligations designed to address consumer harm associated with broadband migrations.

<sup>29</sup> BT Retail/BT Global Services

<sup>30</sup> *Broadband migrations: enabling consumer choice* August 2006

Mis-selling and “slamming” (where customers are simply switched from one company to another without their knowledge and consent) are major concerns to both Ofcom and the industry. It is therefore necessary that consumers are protected from such practices. There have also been concerns that the “Losing Provider” (LP) has no incentive to issue the MAC which can slow the whole process down.

To address these concerns, Ofcom established an Industry Working Group and commissioned a report by Deloitte and Touche to examine the costs and propose a process to ensure a single standard for all migrations which would protect the consumer.

A number of CPs informed us that the process proposed by Deloitte, whilst likely to be effective at protecting residential and small business consumers, is both inappropriate and inefficient for larger business customers and may well lead to an additional cost burden.

Medium to large business customers are generally professional buyers and are unlikely to be the victim of either mis-selling or slamming. Further, these customers often look to their CP to manage the process of taking on new connections and migrating lines from the LP. Rather than the proposed changes affording these customers consumer protection, they may well prove to be inefficient adding cost or time to the migration process.

## 6. Conclusions and Recommendations

### 6.1 Conclusions

On the basis of the above analysis, can we conclude that the market for business customers is functioning properly? As we saw in the introduction, Ofcom defines a well functioning market along four dimensions:

- choice: including different solutions for increasingly diverse consumers, high levels of innovation, and a diverse set of sustainable suppliers;
- price: quality services at competitive prices;
- information: informed consumers who are able to make well-informed choices; and
- low switching barriers: ease of switching between suppliers.

Overall, we see a mixed picture:

#### **Fixed Voice Telephony**

The market functions reasonably well, though prices appear to be high in the UK compared to other EU countries. There is plenty of choice from both direct and indirect access suppliers, a number of price options and barriers to switching are reasonably low. However, there is a major concern regarding NTS where regulatory measures designed for consumer protection have had to be withdrawn due to expected unintended consequences which would damage legitimate business use of these numbers and vulnerable customers.

#### **Internet**

The actions put in place following the TSR have benefited both residential and business customers of broadband Internet access. However, there is still concern amongst the business community that ADSL is not as available as claimed by BT and the real speeds available vary substantially around the country.

#### **Corporate Network Services**

This section of the market appears to be the least well functioning. Prices are high compared to other countries in the EU, customers report a low level of satisfaction, service availability is poor, in particular of SDSL, and there are substantial barriers to switching for customers.

*Our main conclusion is that, whilst UK business customers tend to be well informed, they are lacking choice, incur higher costs than necessary and are faced with substantial switching barriers. Business customers are therefore not able to enjoy the same benefits of a properly functioning market as residential consumers. Since telecoms is an important input for many firms, there is a knock-on effect on the rest of the UK economy as firms are themselves less efficient, and therefore less competitive, than they might otherwise be.*

### 6.2 Recommendations

As it is corporate network services that is the area where the market functions least well, our recommendations focus on this area. We set out our recommendations for three stakeholders: the Department for Business, Enterprise and Regulatory Reform (BERR); Ofcom; and CPs.

#### **BERR**

In February 2008 BERR announced a review of Next Generation Access (NGA) under the leadership of Francesco Caio. We welcome this review and urge BERR to ensure that the review explicitly covers provision of NGA to SME and large business customers as well as residential customers.

**Ofcom**

We applaud the actions Ofcom has taken to date following the TSR to improve the functioning of the market. Without the introduction of Functional Separation and associated remedies the UK may well not be in the strong position it is for Internet access compared with other countries.

However, whilst the market for residential consumers is now working more effectively, this report highlights failings in the market for business customers. We therefore call on Ofcom to undertake the following actions:

- i) Ofcom should conduct a comprehensive strategic review concentrating on provision of services to business customers. The proposed review should be wider in scope than a Market Review, unconstrained by relevant product and geographic markets, and should establish the general level of competition for business customers. Where any bottlenecks or market failures may remain it should propose remedies, potentially both structural and behavioural, to correct whatever problems are found.
- ii) When Ofcom evaluates markets and its own actions (as for example in “Impact of the Telecoms Strategic Review: Evaluation” of December 2007) it should explicitly examine the effects on separate customer groups: residential consumers, SMEs and large businesses.
- iii) NTS and migration are examples of issues where Ofcom has not given enough weight to the interests of business customers. Business customers and their suppliers also have legitimate concerns in these markets. So, when considering its proposals for better consumer protection, Ofcom needs to consider unintended consequences on businesses, in particular if its proposal might impose inefficient costs on business. Regulatory Impact Analyses should therefore explicitly examine the likely impact of a regulatory proposal on all customer types separately.
- iv) Ofcom should acknowledge that businesses use broadband access products for applications other than Internet access. The Business Connectivity Market Review (BCMR) should incorporate business grade variants of DSL and Ethernet in the First Mile (EFM) as business connectivity products and determine whether BT has SMP in these markets and impose appropriate remedies if that is the case, so that downstream markets can be effectively competitive.
- v) Again within the context of the BCMR, Ofcom should consider where lack of competition is failing to encourage BT to innovate or to offer lower cost alternatives. For example, SDSL can be used as a low cost substitute for leased lines and is, at least for some purposes, an efficient substitute. Lack of alternative wholesale providers of SDSL means that BT has no incentive to cannibalise its own PPC revenue and this is placing an unnecessary cost burden on businesses who are forced to buy a leased line when SDSL would be equally as effective. We propose that Openreach should be required

to provide a business grade MPF product which would allow competitors to provide SDSL services with a service wrap that is competitive with PPCs.

- vi) We recognise that Ofcom has done an effective job in ensuring that LLU and WLR prices are reflective of cost. However, BT is still able to over recover on business connectivity products. We recommend therefore that Ofcom seeks to reduce PPC and Ethernet prices to a level where over-recovery no longer takes place.
- vii) The SLA/SLG proposals<sup>31</sup> set out by Ofcom are generally welcome but still leave room for improvement. Specifically, Ofcom should not only consider how to ensure BT meets its existing obligations but also how, given BT's position of SMP, BT can be made to improve the level of service offered. One possible way of achieving this would be to link price controls to Quality of Service, such that BT would be subject to less severe price controls on the proviso that it improves its QoS. We also note that the review only covered existing Openreach products, not services provided by BT Wholesale nor 21CN based services.
- viii) Whilst we recognise that contract novation is not a simple issue, Ofcom needs as a matter of urgency to address the problem of contract novations. This is a major barrier to switching which is damaging competition in the market for business customers and therefore customers themselves.

### **Communications Providers**

We do not make any comments about specific CPs. However, from the interviews we conducted it is clear that the industry in general is not seen as offering high standards of customer service. CPs therefore need to work at improving their standard of customer care.

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<sup>31</sup> Ofcom *Service level guarantees: incentivising performance Statement and Directions* 20<sup>th</sup> March 2008

## Annex 1: The Authors

**SPC Network** ([www.spcnetwork.co.uk](http://www.spcnetwork.co.uk)) is a strategy, policy and economics consultancy specialising in electronic communications markets.

We deliver a return to our clients through exceptional advice on market and policy dynamics utilising a powerful combination of intellectual assets:

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Telecommunications Union	Jordan Mobile Telephone Company "Zain"	Kingston Communications
Land Securities plc	NGNuk Ltd	TelstraClear
Thus	UK Competitive Telecoms Association	Virgin Media