

Business Broadband: A BCC Survey

A state of the nation survey into the penetration and impact of
broadband on British business

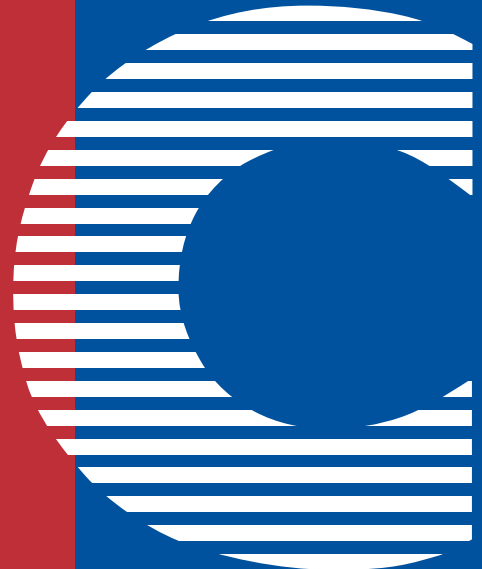


THE BRITISH
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THE BRITISH CHAMBERS OF COMMERCE

BCC BROADBAND SURVEY

A State of the nation survey into the penetration and impact of broadband on British business

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The British Chambers of Commerce (BCC) comprise nationally a network of quality-accredited Chambers of Commerce, all uniquely positioned at the heart of every business community. Currently over 135,000 businesses benefit from membership of over 60 Chambers in our Accredited Network, from growth-orientated start-ups to local and regional subsidiaries of multi-national companies, in all commercial and industrial sectors, and from all over the UK.

At all levels, local, regional and national, the British Chambers of Commerce provide a powerful voice for business. Our regular surveys, consultations and reports provide grassroots business opinion and have strong influence on government ministers and officials, MPs and other decision makers and opinion formers.

If you would like to find out more about the BCC's views on a range of business issues please visit our web-site at:-

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Forewords

British Chambers of Commerce



Isabella Moore

President

British Chambers of Commerce

Across the globe, broadband applications and services are revolutionising business, spurring economic development and increasing productivity. There is no longer any doubt of the important role that affordable and reliable access to broadband plays in maintaining global competitiveness, and British business cannot afford to miss out.

Bringing together the views of almost 4,000 member businesses of all sizes and sectors across the UK, the British Chambers of Commerce (BCC) has undertaken this survey in order to help policy makers and industry gain new insight into the current status of the broadband market in the UK.

The survey looks to establish the benefits businesses perceive broadband has to offer, as well as the barriers preventing them from benefiting from broadband connections. It explores issues such as the importance of broadband in choosing a business location; pressures firms are feeling from customers and suppliers; where businesses look for information on broadband; and whether or not businesses view broadband as critical for their success. The survey also assesses business use of applications enabled by a broadband connection.

We at the BCC would like to express our deep gratitude to Cisco Systems and Oracle Corporation for sponsoring this survey; to the BCC Broadband Taskforce for contributing to the questionnaire's design; and to the committed staff and members of Chambers of Commerce throughout the UK, without whose support this endeavour would not have been possible.

We hope that through this survey will inform opinion as the nation looks to making Broadband Britain a reality.

Oracle



Ian Smith

Senior Vice President and Managing Director
Oracle Corporation UK, Ireland & South Africa

The increasing availability of fast connections into the Internet (broadband) at cost-effective prices makes it possible for individuals and businesses to experience the global information network without the delays and frustrations sometimes associated with dial-up connections. This allows businesses of every size to access new information services and effectively transform the way they operate. Oracle is fully committed to helping smaller organizations reap these “virtual” rewards, and we are working in partnership with BCC to realise this vision.

It’s important to note that although this survey clearly shows growth in the uptake of broadband by smaller organisations across the UK, there are barriers yet to be overcome. We hope that this survey becomes an essential tool for suppliers of information services to address the real needs of customers and potential customers, as well as an outline and illustration of the benefits gained by these early adopters.

Cisco



Duncan Mitchell

Vice President and Managing Director
Cisco Systems Ltd

Cisco Systems is delighted to support this latest body of research by the BCC. As broadband penetration continues its steady growth, it is increasingly opening up a wealth of new and exciting possibilities for businesses.

While high-speed connectivity for e-mail and Internet access can deliver the first and most immediate advantages, the richer content of higher bandwidth applications and services, and a variety of solutions to help drive operational efficiencies represent the next logical step in business evolution.

There are benefits for all in deploying broadband solutions especially in the area of business productivity, and particularly when linked to process change. With the corporate sector already deploying such technologies, the next generation of organisations represented by the BCC is well placed to take advantage of these intrinsically scalable and highly flexible measures which are now firmly within their reach.

Executive summary

This survey is a state of the nation look into the **penetration and impact of broadband** on British business. It explores business use of the technologies enabled by broadband and the value companies perceive broadband has to offer their business. In addition, the survey also identifies **barriers preventing businesses** from benefiting from broadband connections.

Broadband use has risen dramatically in the past year, more than doubling from 19% to 39% of total respondents since last year's BCC survey of ICT use. Dial-up connections, used by 35.7% of all respondents, are still a popular means of accessing the Internet, but future market growth for broadband technologies looks promising.

One third of non-users **plan to acquire** a broadband connection as soon as it is available, while one in six firms plan to acquire broadband within a year. Almost half of all businesses surveyed (users and non-users) believe broadband access to be significant in choosing a **business location**. Another factor encouraging broadband adoption (and frustrating firms that cannot gain access) is **pressure from customers and suppliers** to use broadband-enabled applications. 61% of all firms think they will be pressured to acquire a fast Internet connection such as broadband in the next five years. Nearly half of all firms (47.7%) think suppliers will exert such pressure.

Existing broadband users rate their broadband experience highly. More than four out of five broadband users are satisfied with their connection's consistency of speed, one-time installation cost, quality of service, and ease of installation. Users are least impressed with their choice of suppliers.

More than half of all broadband and non-broadband users agree that broadband is **critical for their business to succeed**. Firms see improved communication (chosen by 61% of firms) as the **greatest benefit** a broadband connection offers to their business. Improved productivity and reduced costs are also seen to be important benefits. The survey also demonstrates that speed – rather than rich content – is seen as a core benefit of a broadband connection. Two-thirds of open comment responses cite speed as a benefit whilst less than two per cent mention rich content such as video conferencing and Internet telephony.

For firms that currently do not have a broadband connection, the **greatest barrier** to uptake is lack of availability. Rural availability is a problem for 30% of non-users, while urban/industrial availability is a

problem for 16% of non-users. One quarter of non-users say they have not upgraded to broadband because they are satisfied with their current connection. Expense is not as big a barrier as it has been in the past. Only 18% of non-users list this as a reason for not connecting to broadband, down from 39% in BCC's 2002 ICT survey. However, expense proves to be a more significant barrier for uptake of **satellite broadband**. Of the 20% of non-users who have investigated obtaining a satellite connection, 60% say cost is a barrier.

Telecoms providers and websites are the most important **sources of information** on business broadband for businesses of all sizes. Small firms tend to rely more on advice from trusted friends and colleagues than do large firms.

In contrast to other recent surveys, but in line with last year's BCC survey results, responses to this survey suggest that use of the **Internet** (99%) and external email (98%) is now nearly universal among companies of all sizes. Six out of seven respondents (86%) now have a **company website**. Internal email is used by three-quarters of businesses.

Local area networks (LANs) are the most widespread networking technologies among businesses. Other technologies such as **wireless LANs, wide area networks (WANs), intranets, extranets, electronic data interchange (EDI)** and **Internet Protocol (IP)** telephony, currently have lower usage rates, and are far more likely to be used by large firms than small ones. However, uptake of these technologies has the potential to grow rapidly, especially among small and medium sized firms, as many of these firms say they plan to use them in the future.

Most businesses in the survey conduct the majority of their business functions with the help of computers. They are most likely to use computers for **account management** and **record retrieval**. A much higher share of large companies than smaller companies use internal computer systems across the entire range of functions. However, the size differential is generally less pronounced when it comes to using the Internet in business functions. The smallest firms actually use the Internet more than large firms for training, purchasing and procurement.

Almost **four thousand businesses responded** to our business broadband questionnaire. The composition of the sample that responded mirrors the cross-section of the members of Chambers of Commerce in terms of size. Nearly three-quarters of respondents were in the services sector, and a fifth were manufacturers.

Introduction

1.1 What is broadband?

Broadband refers to a range of technologies that enable always-on, high-speed access to the Internet and other electronic services. But despite the large number of industry, government and policy groups devoted to broadband in the UK, there is no commonly agreed definition. For the purposes of this survey, we have chosen to adopt Of tel's definition of "higher bandwidth, always-on services offering data rates of 128 kilobits per second (kbps) and above."³

1.2 Background

Broadband has the power to transform business, not just through faster downloads of emails and attachments, but also by enabling companies to be more productive and competitive by using e-enabled applications. A broadband connection opens up a wide range of opportunities for businesses, including enabling them to link directly to their customers and suppliers, to access key accounts from multiple locations, and to communicate effectively from a distance via video conferencing. A broadband connection can also help businesses control costs by outsourcing key business functions such as payroll, accounting and training.

Despite this great promise, Of tel estimate that only 16% of small and medium enterprises (SMEs) have taken up broadband connections.² As of May 2003 there were 2 million (home and business) broadband subscribers in the UK, with the number of new subscribers increasing at close to 30,000 each week.³ Of the 5,595 ADSL exchanges, "BT has enabled 1,100 of them, covering 71 percent of all homes: by the end of 2003 the company expects that figure to have risen to more than 80 percent."⁴

The government has set itself a target for the UK to have the most "extensive and competitive broadband market in the G7 by 2005." The most recent assessments in May 2003 show that the UK has moved from 4th to 3rd for competitiveness, overtaking the US.¹ The UK lags behind on the extensiveness target, ranking 5th in the G7.²

To help stimulate broadband uptake in the UK, a number of government-led initiatives have been launched. These include:

- Provision of a £30 million UK Broadband Fund to enable Regional Development Agencies and devolved administrations to develop broadband networks and run pilot projects;
- Launch of the UK Broadband Task Force in November 2002 with the aim of providing key advice to public sector bodies to increase the take-up and availability of broadband;
- Allocation of £1 billion between 2003-2006 for public service connectivity; and
- Introduction of a new Rural Broadband Team created within DTI to help move the Agenda forward through joint working with Defra and RDAs.⁷

¹Monthly report to the Prime Minister from the e-Minister and e-Envoy, 7 July 2003.

²Broadband Strategy and Facts (email from Nin Kadim, DTI Strategy Unit, July 2003).

³Internet and Broadband Brief, Of tel, June 2003.

⁴Rural Broadband, House of Commons Environment, Food and Rural Affairs Committee, July 2003.

⁵Monthly report to the Prime Minister from the e-Minister and e-Envoy, 7 July 2003.

⁶Broadband Strategy and Facts (email from Nin Kadim, DTI Strategy Unit, July 2003).

⁷Broadband Strategy and Facts (email from Nin Kadim, DTI Strategy Unit, July 2003).

⁸Second Annual Report and Strategic Recommendations, Broadband Stakeholders Group, November 2002, p4.

In addition, government and industry have been working together through the Broadband Stakeholders Group (BSG) to meet the 2005 extensiveness and competitiveness target. Two key priorities have emerged:

- (1) Continuing “to accelerate the adoption of broadband services where they are available making them a “must have;” and
- (2) Ensuring “widespread coverage at affordable prices.”⁸

The British Chambers of Commerce has set out to help encourage these priorities by providing new insight into the current status of the market for business broadband in the UK. This survey aims to identify the benefits that businesses perceive they derive from the technology as well as barriers preventing firms from benefiting from a high-speed connection. In addition, building on last year’s BCC survey of information and communications technology (ICT) use, this year’s survey examines business use of technologies and applications that add real value to a broadband connection. It is hoped that this study of Chamber members’ perception and behaviour will provide increased understanding of the business broadband market as government and industry strive to make Broadband Britain a reality.

1.3 Methodology

Business Broadband: A BCC Survey was devised in consultation with Matters of Fact, an independent research company, and carried out in June and July 2003. The BCC e-Business Group, comprised primarily of more than a dozen Chamber member businesses, contributed significantly to the design of the questionnaire itself. Local Chambers of Commerce in eleven Regions across the UK (not including London) distributed the survey to their members via a printed questionnaire. A link to an online version of the questionnaire was printed at the top of each copy to allow respondents to send their responses electronically if preferred. A total of 3,973 responses, including 197 online responses, were received from businesses of all sizes and sectors, representing a response rate of seven per cent. The results are not weighted by firm size.

1.4 Profile of respondents

1.4.1 Size

The majority of respondents (56.4%) were small firms who employed between one and 19 employees – often called “micro” firms. 8.6% of businesses were sole traders, and 18.2% of businesses employed between 20 and 49 people. In all, the vast majority (83.2%) of respondents belong to the “small firms” sector, officially those who employ fewer than 50 people. 13.3% of businesses were “medium sized”, employing between 50 and 249 people, while only 3.5% of respondents were “large firms”, defined as those employing more than 250 people.

The composition of the sample that responded to the survey mirrors the cross-section of the members of Chambers of Commerce. Among the full members of Accredited Chambers in the UK, 83.8% employ fewer than 50 people (53.8% employ less than 10 people, and 30.0% employ between 10 and 50), 12.5% are medium sized firms and 3.7% are large firms. When the number of employees at other sites in the UK is accounted for, an additional 59 respondents were large firms (employing more than 250 staff).

Number of employees

Employees at this site	Share of total %
Self-employed	8.6
1-19	56.4
20-49	18.2
50-249	13.3
250+	3.5
Total	100.0

Number of employees in total (UK only) if multiple sites

Employees in total	Share of total %
1-19	30.6
20-49	32.3
50-249	11.6
250+	25.5
Total	100.0

1.4.2 Activity

Nearly three-quarters of the businesses (73.7%) who responded to our survey were in the services sector. Almost a fifth of respondents (18.7%) were manufacturers. The remainder was comprised of firms in the construction sector (6.2%) or primary production (1.4%).

Professional services was the most common category of business activity, with almost one

third (27.0%) falling into this category. 11.3% of businesses responding to the survey were manufacturers of investment goods (i.e. goods used to make other goods; this includes most products in the metals, chemicals, plastics and printing industries). 7.4% were manufacturers of consumer goods (for example, food, clothing, footwear, textiles). Other relatively common sectors were “other services” (20.1%), retail/wholesale (8.1%) and construction (6.2%).

Principal business activity of respondents

Principal business activity	Share of firms (%)
Agriculture, forestry, fishing, quarrying etc.	1.4
Construction	6.2
Manufacturing	
Consumer goods	7.4
Investment goods	11.3
Services	
Retailing/wholesaling	8.1
Transport/distribution/storage	5.1
Hotels/restaurants	3.2
Professional services	27.0
Marketing/media	4.8
Consumer services	1.7
Public or voluntary sector services	3.7
Other services	20.1
Total	100.0

2.0 Part I – Use of Technology

2.1 Connectivity Technologies

2.1.1 Internet and email

In contrast to other recent surveys, responses to this survey suggest that use of the Internet and external email are now nearly universal among companies of all sizes. 97.8% use the Internet and 97.6% use external email). Many of the small number who currently do not have external email or Internet plan to get them. There is very little variation between different sizes of firm. Internet use has become virtually ubiquitous among firms of all sizes and sectors. Over 96.0% of firms in every size category say they use external email, while over 95.0% of firms of all sizes use the Internet.

The vast majority of businesses use company websites (85.6%). Only one in seven respondents (14.4%) do not have a website, and most of these (11.1%) planned to get one in the future. The self-employed are the least likely to have company websites, and the share steadily rises with size of firm, so that virtually all large firms (96.2%) had a website.

Most businesses using external email also use internal email. However, just over three-quarters (75.8%) of firms in the survey use internal email, compared to the 97.6% who have external email. Part of this lower average can be explained by the low share of the self-employed (36.8%) on internal email systems, reflecting that they have no employees to email. However, the share of other businesses using internal email is also smaller than those using external email: 71.6% of micro firms, 85.2% of small firms and 93.3% of medium firms, compared with over 96% of firms of all sizes who use external email.

When the respondents are grouped by industrial sector, the two sectors with the most widespread use of internal email are manufacturers of investment goods, and companies in the public and voluntary sector. The sectors least likely to use internal email are hotels and restaurants and consumer services. Almost all companies in every sector use external email and the Internet; the only sectors where usage rates fall below 95% are consumer services, construction and retailing/wholesaling. Meanwhile, use of web

sites was high in every sector, but highest among hotels/restaurants and manufacturing firms (including both consumer and investment goods) and lowest among construction firms and retailing/wholesaling.

2.1.2 Networks

Local area network

The most prevalent networking technology is the local area (LAN) connection. Local area networks are a way of linking computers in a building so that they can share files, software, peripheral hardware and storage. Understandably LANs, like internal email, are not much used by the self-employed, perhaps because their offices contain a single workstation. However, 66.0% of micro sized firms in the survey use LANs, and the share rises by about ten percentage points with each size category, peaking with a penetration rate of 95.9% for large firms. The survey results suggest that this technology has reached saturation point and that the growth potential for LANs is relatively low: less than five per cent of firms in any size category except self-employed say they plan to create a LAN in the future. On a sectoral basis, use of LANs is highest among manufacturers of investment goods and lowest among hotels/restaurants.

Wide area network

Wide area networks (WANs) allow the same sharing of files and other resources as LANs, but they link computers at different sites. Wide area networks are used by 26.2% of respondents, while another 10.3% plan to use them in the future. Among all the connectivity technologies that firms were questioned on, WANs display the most striking disparity of uptake between different sizes of firm. Among micro firms, only 16.9% of respondents currently use a WAN. At the other extreme, the vast majority of large firms (84.7%) use a WAN, while in the middle groups, just over half of medium sized firms (53.0%) and just under a third of small firms (29.2%) use WANs. Part of this disparity between firm sizes is to be expected, as larger firms are more likely to have multiple sites, and therefore more reason to use a WAN. However, the potential for growth is highest among micro sized and small firms: over 10.0% of respondents in these groups (11.4%

and 12.8% respectively) plan to use a WAN in the future, suggesting that not all firm sizes have exploited this technology to its full potential. On a sectoral basis, use of WANs is highest in the public and voluntary sector, and lowest in the hotels/restaurants sector.

Wireless LAN or WiFi

Wireless LAN or wireless fidelity (WiFi) networks are like LANs except the data is transmitted via radio waves instead of electric cable. WiFi has the lowest overall uptake of the technologies listed in this section. Only 13.2% of firms in the survey currently use WiFi. Uptake is relatively low for both micro firms (11.9%) and small firms (10.6%). However, an equal share of firms in each category plan to adopt WiFi technology in the future, suggesting that the technology is still in an early stage of development, and that usage rates could double in the foreseeable future. Use of WiFi is highest among large firms (32.0%); this category also has the highest share of respondents planning to use it in the future (19.0%), suggesting that a majority of large firms will adopt WiFi. On a sectoral basis, use of WiFi is highest among providers of professional services and lowest among those in the agriculture/primary production sector.

Intranet

An intranet combines a LAN with Internet technology to allow staff to share files and access databases. Intranets are used by a third (32.0%) of all respondents, while another 10.3% of firms plan to implement one soon. Intranets, like WANs, have a much higher usage rate among larger firms than smaller ones. 83.1% of large firms have an intranet (a very similar share to those with a WAN, 84.7%), as do over half of medium firms (55.6%). But only a third of small firms (33.9%) and less than a quarter of micro firms (23.7%) use an intranet (usage among the self-employed is understandably low, at 11.6%). The figures suggest that growth potential is highest among small and medium sized firms, with 16.3% of the former and 12.9% of the latter group saying they expect to use an intranet in the future. On a sectoral basis, use of intranets is highest in the public/voluntary sector and lowest in the agricultural/primary production sector.

Extranet

An extranet uses Internet technology and infrastructure to share some of a business's

information or operations with other businesses or customers, over a secure connection. Uptake of extranets, used by only 19.1% of all firms, is quite low at present. However, the potential for growth is very strong – a further 17.2% of firms plan to use an extranet in the future. Among most sizes of firm, extranets are used by only a small minority: 7.2% of the self-employed, 17.0% of micro firms, 18.6% of small firms and 26.4% of medium firms. Only large firms have a majority usage rate (52.3%). On the basis of firms planning to use extranets in the future, market penetration could more than double among medium firms, small firms and the self-employed. Usage rates could rise to over three-quarters of large firms. On a sectoral basis, use of extranets is highest in the public/voluntary sector and lowest in the agriculture/primary production sector.

2.1.3 Other technologies

Electronic data interchange

Electronic data interchange (EDI) is the straight transmission of data from one computer to another in a standard format, without any free-form messages. Virtually a quarter of respondents (24.6%) currently use electronic data interchange (EDI), while 13.0% say they plan to use it in the future. As with other growing networking technologies, such as WAN, the rate of uptake is much higher among large firms than small ones. Only 16.8% of micro sized firms use EDI; this rises to 28.7% of small firms, 46.3% of medium firms and peaks at 65.8% of large firms. However, the potential for the spread of this technology is highest among small and medium sized firms: around 15% of both groups plan to use EDI in the future. On a sectoral basis, use of EDI is highest in the agriculture/primary production sector and lowest in the marketing/media sector.

Internet Protocol or IP Telephony

Internet Protocol (IP) telephony allows voice phone calls to be made over the Internet or another network, using a PC and a standard telephone. IP telephony has one of the lowest rates of uptake among the connection technologies on which businesses were surveyed: 15.4% of the total use IP telephony; only WiFi has a lower overall usage rate (13.2%).

Along with WiFi, it is also the only connection technology which is used by less than half of large firms. IP telephony is used by 5.7% of the self-employed and 13.2% of micro firms; the rate rises with firm size and peaks at 41.5% of large firms. There is substantial room for growth. Over 10.0% of micro firms,

small firms and the self-employed plan to use IP telephony in the future, and the shares are even higher for medium firms (17.0%) and large firms (22.6%). On a sectoral basis, use of IP telephony is highest in the public/voluntary sector and lowest in the hotels/restaurants sector.

Usage rates of connectivity technologies among firms of different sizes (%)

		Full time staff at site					
		Self-employed	1-19	20-49	50-249	250+	Total
Internal email	Currently Use	36.8	71.6	85.2	93.3	97.7	75.8
	Plan to Use	3.6	4.6	5.6	3.8	1.5	4.5
External email	Currently Use	96.0	97.3	97.8	99.6	98.5	97.6
	Plan to Use	1.8	1.4	1.3	0.2	0.8	1.2
Internet	Currently Use	95.7	97.7	98.0	99.6	97.0	97.8
	Plan to Use	1.8	1.6	1.6	0.4	2.3	1.5
Company Website	Currently Use	65.6	84.6	89.5	94.1	96.2	85.6
	Plan to Use	25.6	12.0	8.1	4.9	3.0	11.1
Intranet	Currently Use	11.6	23.7	33.9	55.6	83.1	32.0
	Plan to Use	3.0	8.5	16.3	12.9	11.3	10.3
Extranet	Currently Use	7.2	17.0	18.6	26.4	52.3	19.1
	Plan to Use	11.4	13.9	20.9	26.9	24.3	17.2
WAN	Currently Use	3.1	16.9	29.2	53.0	84.7	26.2
	Plan to Use	2.6	11.4	12.8	8.9	4.5	10.3
LAN	Currently Use	27.8	66.0	77.3	85.8	95.9	69.3
	Plan to Use	7.9	4.8	4.5	3.0	1.6	4.6
WiFi	Currently Use	5.6	11.9	10.6	21.5	32.0	13.2
	Plan to Use	9.0	11.9	10.6	13.5	19.0	11.9
EDI	Currently Use	5.9	16.8	28.7	46.3	65.8	24.6
	Plan to Use	8.1	12.5	15.1	15.8	9.4	13.0
Internet Protocol	Currently Use	5.7	13.2	15.2	22.5	41.5	15.4
	Plan to Use	10.9	10.1	13.2	17.0	22.6	12.2

2.2 E-commerce

Businesses were asked about the extent to which they use computers in their business functions, whether using an internal system or connecting to systems outside their company via the Internet. It is no surprise that most businesses in the survey say they conduct most functions with the aid of computers.

In general, the proportion of businesses that report using computers for their business functions is much higher than last year. To

some extent, this may be attributable to a different phrasing of the question this year (businesses were asked which functions were “conducted on internal computer systems”, whereas last year the phrase was “conducted electronically”, which may have suggested a fuller extent of computer usage in business functions). Nearly all firms use internal computer systems to manage their accounts (94.8%) and retrieve records (90.5%), and a large majority use them for human resources (79.6%) and sales (78.3%). Very roughly

⁹In the BCC Quarterly Economic Survey, a regular survey of Chamber of Commerce members, typically between a third and a half of respondents are exporters.

speaking, around two-thirds of businesses use computers for procurement (69.5%), marketing (66.6%), design and production (62.9%), and training (62.0%). Less than a third of businesses (32.2%) use computers in their export processes; however, the share of respondents involved in exporting is likely to be significantly lower than the share engaged in inescapable tasks such as account management and employment records – so computer usage rates among exporters may still be relatively high despite the low nominal figure.⁹

Use of the Internet in business processes – as opposed to a purely internal system – exhibits some different trends. Some business processes are far more likely to make use of the Internet than others. For example, 42.6% of businesses say they use the Internet for marketing purposes, while about a third (31.6%) use it for purchasing and procurement. This contrasts with very small shares of firms who use the Internet for largely internal functions such as human resources, accounting and record retrieval (3.0%, 7.2% and 7.7%).

Large and small firms compared

Computer usage among the self-employed in most business functions is high but lower than other size categories. 84.9% of self-employed people use internal computer systems to manage their accounts, while 78.2% use them for records. For all other sizes of firm, over 90% use computers for both functions. For almost all business functions, the larger the firm, the more prevalent the use of internal computer systems. However, the self-employed are actually more likely to use the Internet for training purposes than any other size group (23.6% compared with 22.0% of large firms), highlighting its importance as a learning tool for the smallest businesses. When it comes to sales and marketing, the differences in Internet usage between small and large firms are relatively small. In purchasing and procurement, micro firms and the self-employed are more likely to use the Internet than are medium or large firms.

Usage rates of internal computer systems and/or external internet in business processes, among firms of different sizes (%)

		Full time staff at site					
		Self-employed	1-19	20-49	50-249	250+	Total
Accounts Management	Internal System	84.9	94.3	97.6	98.2	98.5	94.8
	External Internet	5.9	7.1	7.1	9.2	3.7	7.2
Record Retrieval	Internal System	78.2	90.7	92.3	93.3	94.5	90.5
	External Internet	6.4	7.9	7.8	7.5	8.6	7.7
HR/Employment records	Internal System	27.9	77.7	88.4	94.5	97.0	79.5
	External Internet	3.2	2.9	4.2	1.9	2.3	3.0
Training	Internal System	38.0	56.6	68.7	79.1	88.1	62.0
	External Internet	23.6	17.1	15.2	13.7	22.0	17.0
Sales/CRM	Internal System	63.8	77.1	82.1	85.3	84.2	78.3
	External Internet	22.3	23.6	21.3	26.0	28.1	23.5
Marketing	Internal System	60.6	66.7	66.3	68.2	73.7	66.6
	External Internet	41.2	43.3	38.7	45.9	44.1	42.6
Purchasing	Internal System	42.0	65.8	79.2	82.7	82.7	69.5
	External Internet	40.5	34.0	25.6	26.7	27.6	31.6
Design and Production	Internal System	52.3	59.7	66.2	73.4	78.6	62.9
	External System	11.3	14.9	13.4	14.0	12.5	14.1
Exporting	Internal System	9.8	28.6	38.7	46.3	50.0	32.3
	External Internet	11.2	13.8	14.3	12.8	14.0	13.5

2.3 Mobile Working

The majority of businesses (53.5%) now report that on average, some of their staff work from more than one location for at least one day a week. However, in over half of this group, the share of employees working remotely is 10% or less. In contrast, 43.1% of businesses say their staff are purely site-based. On a sectoral basis, the industry sectors where it is most common to find all staff working on site every day are hotels/restaurants and retailing/wholesaling.

The construction sector and professional services sector have the highest share of staff who work in multiple locations each week. 22.0% of construction firms say that more than half of their staff work at more than one location for an average of one day a week or more, as do 17.0% of professional services

firms. Meanwhile, only 3.1% of manufacturers of consumer goods and 3.7% of manufacturers of investment goods say more than half of their staff work at multiple locations.

Proportion of staff working at more than one location for one day or more a week on average, by percentage of total respondents

Staff	Share of respondents %
None	43.1
1-10%	27.6
11-25%	8.1
26-50%	6.3
51-75%	4.2
76-100%	7.2
Don't know/NA	3.4
Total	100.0

3.0 Part II – Business Broadband

3.1 Broadband uptake

Broadband availability has increased markedly in the past year. Oftel reports that around 70% of the UK has access to broadband via DSL and around 45% via cable modem. Fixed wireless connections have the potential to provide access to around 12% of the UK while satellite has the potential to deliver broadband across the entire UK.¹⁰ Actual take-up of broadband by smaller companies has significant growth potential, with Oftel estimating a 16% penetration rate.¹¹

Our survey shows that the percentage of Chamber members (of all sizes) connected to Internet via broadband has risen dramatically since our survey last year, more than doubling from 19.0% to 39.0% of total respondents. This rise is even more startling when it is considered that this year's survey was administered in the same (primarily paper-based) manner to roughly the same mix of businesses as the 2002 BCC survey of ICT use. Large companies (more than 250 employees) are most likely to be broadband users, while sole traders are least likely.

As a percentage of total respondents (including broadband and non-broadband users), the most common type of connection is ADSL (25.7%), followed by high speed leased line (5.1%) and cable (4.8%). Satellite and wireless broadband are used by 1.2% and 1.0% respectively, and only 0.4% of firms had 3G/2.5G mobile phone connections. A further 3.0% of businesses are not sure what type of broadband connection they use. Larger firms show a greater tendency to use high-speed leased lines than do smaller firms.

Comparing this with other methods of accessing the Internet, dial-up is the most popular method (35.7% of all respondents), followed by ISDN (29.0%). A further 2.4% of businesses are not sure what type of slow connection their business use, while 1.4% of respondents have no Internet connection at all. A third of non-users (32.5%) plan to acquire a connection as soon as it is available, while one in six firms plan to acquire broadband within a year. 35% of non-broadband users have no definite plans to acquire a broadband connection, though less than 2% say that they will never acquire a broadband connection.

Share of businesses using Internet connection technologies (% all respondents)

	Share of firms by group (%)					
	ALL	Self-employed	1-19	20-49	50-249	250+
Non-broadband						
No connection	1.4	2.3	1.7	0.8	0.6	0.7
Dial-up modem	35.7	57	39	28.2	22.5	18.7
ISDN (64k or 128k)	29	14.3	25.6	34.6	44.3	33.8
GPRS mobile phone	2.4	2	2.2	2.4	3.2	2.9
Don't know	2.4	0.6	1.9	3	3.6	7.2
Other slow connection	0.7	0.6	0.5	0.4	1.9	1.4
Broadband						
ADSL	25.7	13.5	26.5	29.9	27.3	17.3
Cable	4.8	9.9	4.6	2.1	3.3	6.5
Satellite	1.2	0.5	0.8	2.5	1.9	0.7
Wireless	1	-	0.9	1	1.5	1.4
Leased Line	5.1	1.5	2.9	5.1	12.6	20.9
3G/2.5G mobile phone	0.4	-	0.4	0.4	0.6	1.4
Don't know	3	0.9	2.7	4.3	2.5	7.9
Other	1	0.9	0.8	1	1.5	2.2

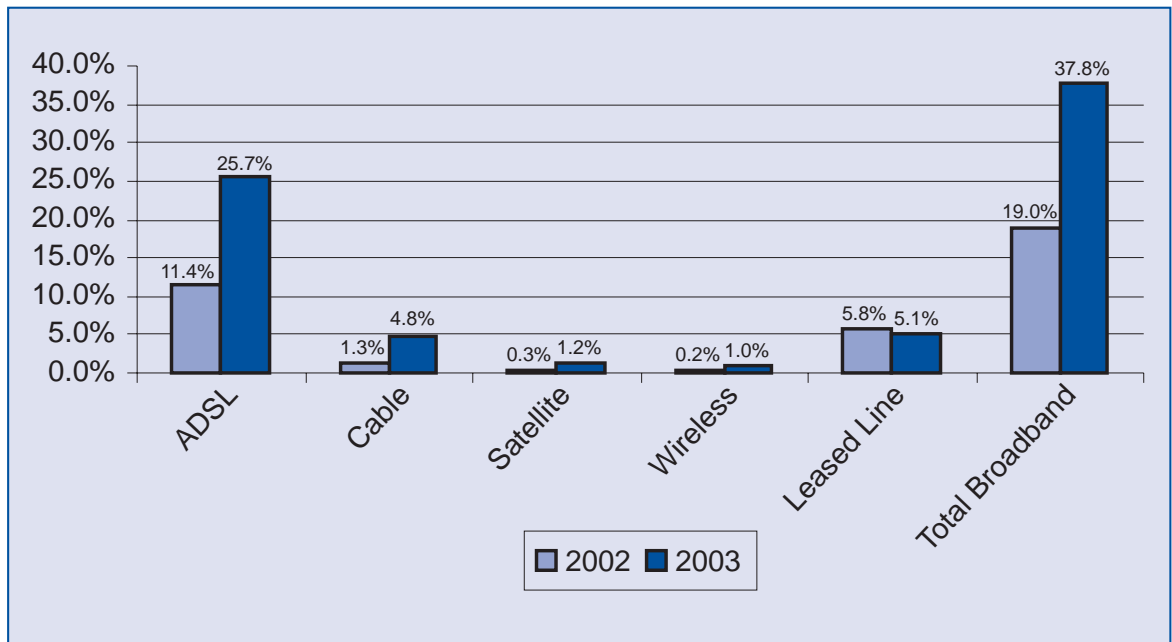
Respondents were asked to choose more than one connection where applicable

¹⁰Oftel Internet and Broadband Brief, June 2003.

www.oftel.gov.uk/publications/Internet/Internet_brief/broad0603.htm

¹¹Business use of the Internet – Oftel small and medium business survey Q12, February 2003

Broadband growth 2002-2003 (% of all firms)

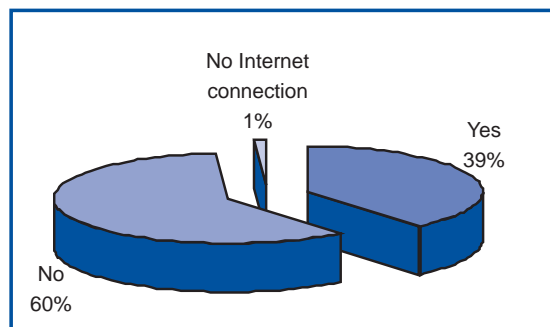


Note: In 2003, firms were asked to mark all connections that applied, while in 2002 firms were asked to mark only one.

When do you plan to acquire a broadband connection

When	Share of firms by group (%)					
	ALL	Self-employed	1-19	20-49	50-249	250+
As soon as it is available	32.5	37.8	33.4	34.1	24.8	24.7
Within a year	16.4	14.6	17.4	14.6	17	11
Within 2-3 years	7.1	5.3	7.5	7.4	6.5	5.5
No definite plans	34.4	34.6	34.2	33.6	36.6	31.5
Not ever	1.6	2	1.4	1	2.4	2.7
N/A	8.1	5.7	6	9.4	12.7	24.7

Broadband internet connections (% of all firms)



3.2 Satisfaction with broadband

We asked existing broadband users how satisfied they were with eight aspects of their broadband connection and service. All eight aspects are considered satisfactory by more than half of users surveyed.

Consistency of speed received top marks. More than 83% of companies are quite

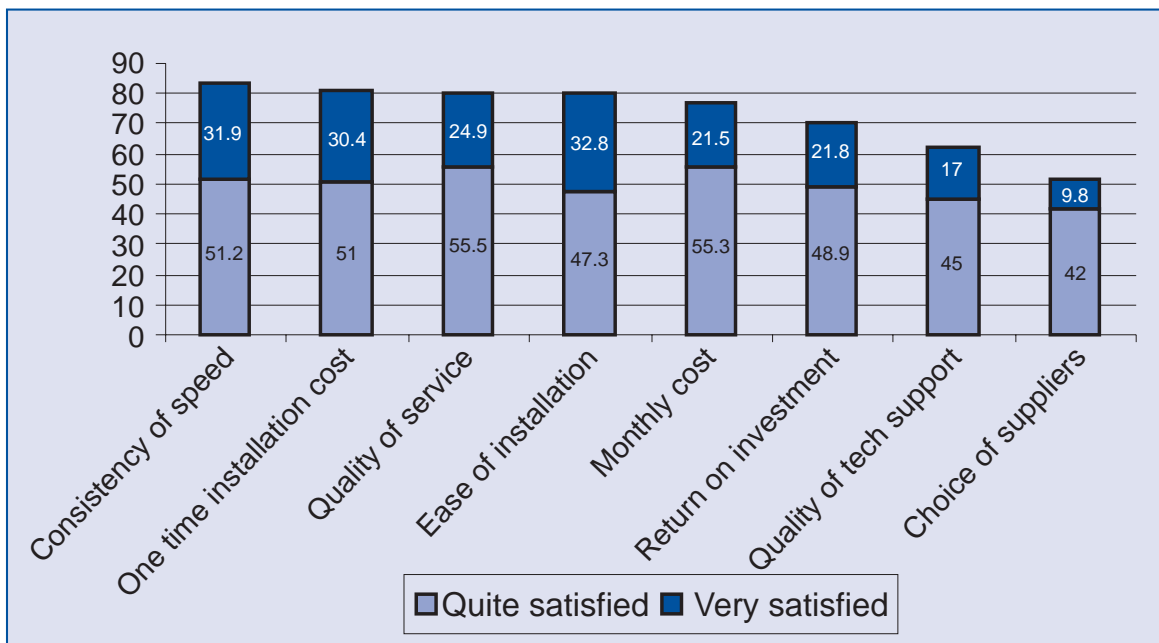
satisfied (51.2%) or very satisfied (31.9%) with this aspect of their connection. Not far behind are satisfaction ratings for one-time installation cost (81.4% of respondents are quite satisfied or very satisfied), quality of service (80.4%), and ease of installation

(80.1%). Meanwhile more than three quarters of companies (76.8%) are satisfied with the monthly cost of their broadband connection, and over 70.7% of companies are satisfied with their return on investment in broadband.

Broadband users are least impressed with the quality of technical support and choice of suppliers, which receive positive ratings from 62% and 51.8% of broadband users respectively.

Results are similar across all size groups. Professional services show the highest degree of satisfaction with all aspects of their broadband connection.

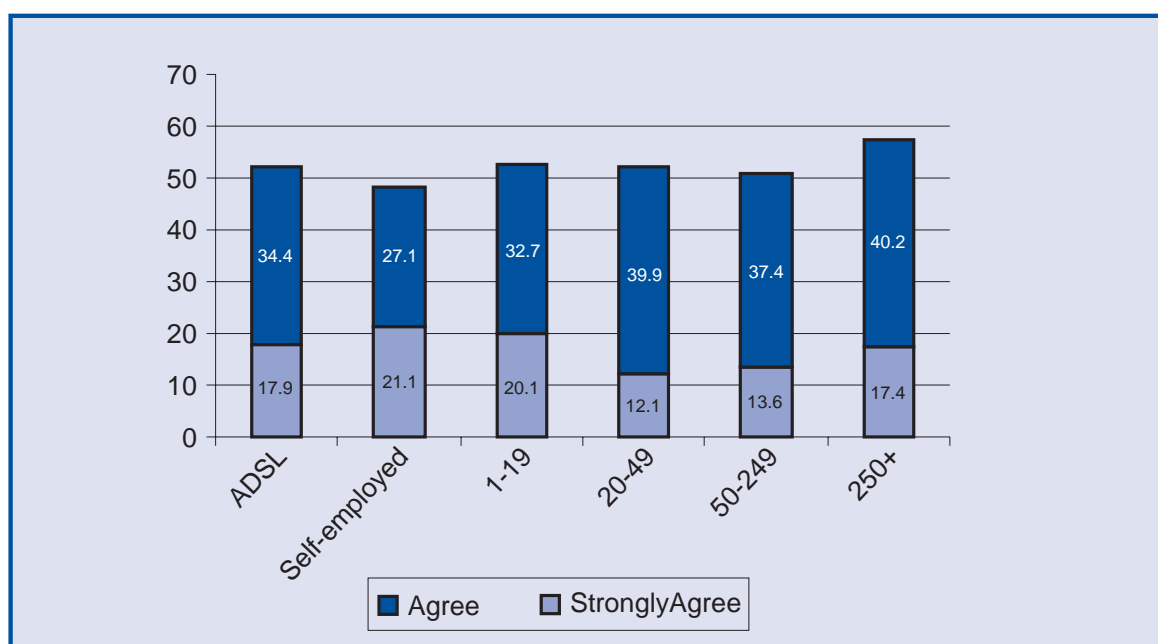
Satisfaction with broadband connection (%)



Business perception of broadband benefits (%)

	ALL	Share of firms by group (%)				
		Self-employed	1-19	20-49	50-249	250+
More effective communication	60.8	55.6	61.7	62.8	60	51.2
Improved business productivity	46.4	47.8	47.4	43.5	46	43.4
Reduced Costs	45.3	38.5	46.1	46.8	44.2	45.7
Flexible working	28	22	27.4	27.5	31.7	40.3
More efficient procurement	26.2	23.3	25.9	27.4	27.9	25.6
Competitive advantage	21.1	22.7	22.1	20	17.5	20.9
Better access to e-learning	20	23.3	18.6	19.4	22.5	27.1
Increased Sales	13.4	14.9	14.3	11.9	12.4	7.0
No perceived benefits	8.4	11.5	8.9	6.5	6.4	9.3
Don't know	8	10.6	7.1	8.8	7.8	10.9
Reduced requirement for specialist IT skills	6.6	10.6	7.1	8.8	7.8	10.9
Other	3.6	3.1	3.9	3	3.6	2.3

Firms that agree broadband is critical for their business to succeed



3.3 Business perceptions of broadband benefits

Lack of understanding of the wider broadband value proposition is often cited as a major barrier to uptake. In order to gain more insight into this theory, both broadband users and non-users were asked about what they perceived to be the benefits of business broadband. They were asked to choose all options that applied from a list of more than a dozen, including a write-in option.

Overwhelmingly, companies of all sizes and sectors see more effective communication as the biggest benefit of having a broadband

connection for their business: 60.8% of firms rate this as beneficial. Improved business productivity is the next most frequent benefit, chosen by 46.4% of respondents. Reduced costs is third, with a similar share (45.3%). However, costs are a greater priority than improved productivity for manufacturers, retailers and distributors.

These three benefits clearly lead the pack, followed by a second tier of responses rated by 20-30% of respondents. These are: flexible working (28.0%), more efficient procurement (26.2%), competitive advantage (21.1%), and better access to e-learning (20.0%).

At the lower end, 13.3% of firms perceive increased sales to be a benefit of having a broadband connection, meanwhile 6.6% of firms rate reduced requirement for specialist IT skills as a benefit. Only 8.4% of all companies surveyed (broadband and non-broadband users) believe that broadband offers no benefit to their business.

An analysis of the benefits written into the survey by firms reveals an overwhelming theme – speed. Time saved thanks to “quicker access,” “speed of service,” “speed of web searches,” “less waiting for downloads,” and “faster and cheaper communication” was cited as a broadband benefit in almost two-thirds of write-in responses. In stark contrast, less than two percent of write-in responses mention rich content services such as video conferencing and Internet telephony. As one respondent aptly put it, many businesses view broadband as a method of “simply speeding up what [businesses] do now.” For large and small companies, the results did not vary widely.

Regardless of business perception of the benefits that broadband has to offer, there is consensus on its value to business. More than half of all respondents (52.3%) agree or strongly

agree that broadband is critical for their business to succeed. Almost a fifth (17%) have no opinion on the matter, while almost a third of firms either disagree (21.4%) or strongly disagree (6.6%) that broadband is critical.

3.4 Importance of broadband in choice of business location

When asked how significant broadband is in choosing a business location, nearly half of all businesses (46.1%) surveyed (users and non-users) believe it to be very or quite important. Broadband access matters slightly less for large companies (44.0%) in choice of business location than for self-employed (35.3%) and micro (40.2%) businesses.

3.5 Pressure from customers and suppliers

An important driver believed to be encouraging broadband adoption (and frustrating firms that cannot readily gain access) is pressure from customers and suppliers to use broadband-enabled applications. Survey results clearly support this hypothesis.

Firms were asked whether or not they thought their business would face pressure in the next

Importance of broadband in choice of business location

Importance	Share of firms by group (%)					
	ALL	Self-employed	1-19	20-49	50-249	250+
Very important	21.9	24.1	24.2	17.3	15.7	20.5
Quite important	24.2	22.6	24.3	25.3	24.1	23.5
Not very important	23.3	16	22.8	25.1	27.7	22.0
Not at all important	17.8	19.3	17.4	18.4	17.7	22.0
No opinion/NA	12.8	18.1	11.3	13.9	14.7	12.1

Columns may not sum to 100 due to rounding differences

Firms that think they will be pressured to obtain a fast connection such as broadband in the next five years

Pressure	Share of firms by group (%)					
	ALL	Self-employed	1-19	20-49	50-249	250+
By Customers						
Yes	60.9	52.5	60.5	62	64.2	69.5
No	25.7	30.1	26.6	24.4	24.3	16.0
No opinion/NA	13.4	17.5	12.9	13.7	11.5	14.5
By Suppliers						
Yes	47.7	40.9	45.9	50.2	51.4	62.90
No	35.9	36.5	38.7	32.4	33	22.58
No opinion/NA	16.4	22.6	15.3	17.5	15.6	14.52

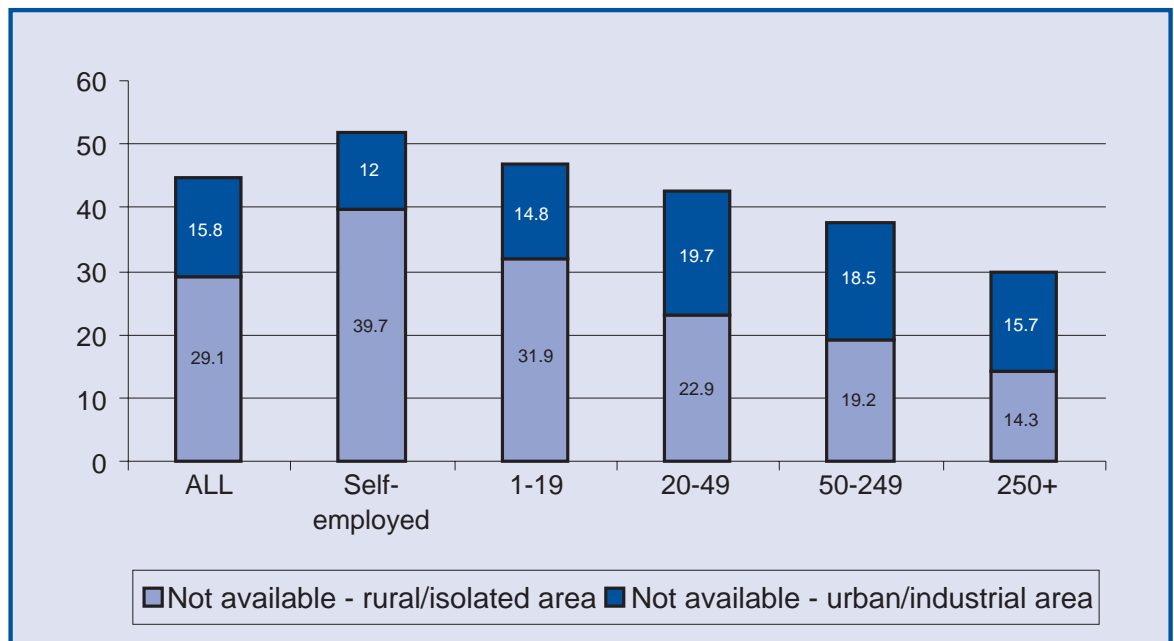
five years to conduct business that requires a fast connection such as broadband. Three-fifths of all firms (60.9%) think they will be pressured by customers in the next five years, and nearly half of all firms (47.7%) think suppliers will exert pressure.

Large firms were the most likely to feel the heat. 69.5% of large firms expect to be pressured to obtain fast connections by customers, while slightly fewer (62.9%) anticipate supplier pressure. Self-employed

and micro firms were the least likely to feel pressured.

In order to realise value from systems enabling high-speed video conferencing, electronic data interchange (EDI) and e-procurement, there must also be a network of customers and suppliers willing to participate. As broadband-enabled applications become a fixture throughout the supply chain, it is likely that this pressure will continue to grow.

Firms not using broadband due to lack of availability (%)



3.6 Barriers to broadband uptake

In addition to exploring what businesses perceived to be the benefits of a broadband connection, we also asked non-users about the barriers preventing them from obtaining a broadband connection. Firms were allowed to choose as many reasons that applied from a list of a dozen.

Lack of availability is by far the top reason for not using a broadband connection. 29.1% of those surveyed say they do not have access to a broadband connection and are located in a rural or isolated area; urban/industrial availability is a problem for almost 15.8% of broadband non-users. This is an increase over 2002 survey results, which indicated that lack of availability is a problem for 26.7% of non-users. It should be noted that the 2003 questionnaire did not offer a distinction between rural and urban/industrial area users.

The second biggest reason non-users give for not adopting broadband is that they are satisfied with their current connection. More than a quarter (26.6%) of firms report this as a reason for not shifting to broadband.

Although perceived high prices are often mentioned as a major barrier to uptake, only 17.3% of non-users say they are not connected because of expense. This is down significantly from last year's survey, where almost two-fifths (38.5%) listed expense as a reason they do not use broadband. Another area significantly improved from last year's survey is information. 13.5% say they do not use broadband because they did not know enough about it, down from 30.2% in 2002.

Other reasons on the list, including the hassle of installation (4.2%), lack of employee technical expertise (4%), poor quality of technical support

(2.5%), and poor choice of service providers (1.6%) only prove to be barriers for less than 5% of non-users surveyed. Additionally, one in ten non-users (9.9%) say they cannot see the benefit of a broadband connection.

Large and small firms compared

Overall, barriers such as availability, expense, lack of information and problems with installation affect small and self-employed businesses to a far greater extent than large and medium size businesses. The main

exception is satisfaction with current connection, which has a greater effect on medium and large size companies in their decision to adopt broadband.

Focusing on rural availability, rural access problems were especially acute for self-employed (39.7%) and micro businesses (31.9%). At the same time, only 14.3 % of businesses employing more than 250 people reported this as a problem.

Why don't you currently use a broadband connection?

Reason	Share of firms by group (%)					
	ALL	Self-employed	1-19	20-49	50-249	250+
Not available (rural/isolated area)	29.1	39.7	31.9	22.9	19.2	14.3
Satisfied with current connection	26.6	22.7	26.4	26.5	30.8	28.6
Not available (urban/industrial area)	15.8	12	14.8	19.7	18.5	15.7
Too expensive	17.3	29.8	19.3	10.4	9.1	5.7
Don't know enough about it	13.5	14.5	13.7	13.8	12.9	8.6
Can't see the benefit	9.9	14	10.5	8.6	6.3	5.7
Don't know/NA	6.6	4.1	4.9	9.1	10.5	17.1
Other reason	5.7	3.7	4.9	6.2	8.4	14.3
Too much hassle to install	4.2	6.6	4.5	3.9	1.4	2.9
Poor quality of technical support	2.5	5	2.7	2.1	0	1.4
Employees lack technical expertise	4	2.5	4.4	3.9	4.5	0
Don't like choice of service providers	1.6	3.3	1.4	1	1.4	1.4

Non-broadband users who have investigated satellite broadband

	Share of firms by group (%)					
	ALL	Self-employed	1-19	20-49	50-249	250+
Yes	19.8	21.3	21.2	16.2	18.9	15.2
No	73.7	73.5	73.3	76.4	72.6	70.9
Don't know/NA	6.5	5.2	5.5	7.4	8.5	13.9

3.7 Barriers to satellite broadband uptake

With the potential to cover 100% of the UK population, satellite is often the best hope of a broadband connection for businesses located in difficult to serve or remote areas. One in five of all non-broadband users (19.8%) have investigated satellite broadband. In order to gain further insight into the barriers to satellite uptake, we asked this group why they chose not to adopt the technology. Respondents were allowed to chose all barriers that applied from a list of five.

Cost is overwhelmingly the greatest barrier to satellite uptake. 57.2% of firms list this as a problem. Other barriers are relatively less important. One in four businesses (24.8%) say they would prefer to wait for a terrestrial wireless scheme. The increased signal delay on satellite service is a problem for 21.6% of respondents, while one in six businesses (16.1%) find planning implications for the dish to be a barrier. Write-in responses by 16.9% of respondents highlight lingering confusion on satellite availability and the installation process.

Barriers to satellite uptake (non-broadband users who have investigated satellite)

Barriers	ALL	Share of firms by group (%)				
		Self-employed	1-19	20-49	50-249	250+
Cost	57.2	68.9	60.2	50.6	24.4	41.2
Problems due to increased signal delay	21.6	24.6	18.2	23.4	30.5	35.3
Prefer to wait for terrestrial wireless scheme	24.8	21.3	23.2	27.3	37.3	11.8
Other reason	16.9	18	15.7	18.2	18.6	23.5
Planning implications for the dish	16.1	21.3	18.8	9.1	6.8	11.8

3.8 Channels for broadband promotion

Knowing where and how to reach businesses is key to effective promotional campaigns by industry, government and other stakeholders. We endeavoured to identify the most important promotional channels by asking all companies (both broadband and non-broadband users) where, if anywhere, they would look for information on broadband Internet. Companies were asked to tick all options that applied from a list of ten.

Unsurprisingly, telecoms providers headed the list, with two-thirds (66.3%) of respondents choosing this option. Internet/website (63.6%) was the second most popular source of information, followed by Internet service providers (42.4%) and IT provider/support specialists (34.1%). With the exception of Internet/website, which can refer to a whole host of potential resources, the top four responses indicated that businesses are most likely to look to service providers when researching broadband.

Word of mouth is also an important resource, with almost 29.2% of businesses relying on friends and colleagues for information on

broadband. Nearly one in five businesses look to their local Chamber of Commerce as a resource for broadband advice, while 10.2% refer to their local Business Link and a similar percentage (8.9%) considers UK Online for Business to be a resource. A mere 4.8% of businesses say that they either do not know where to look or the question is not applicable. It should be taken into consideration that because the survey was distributed by Chambers of Commerce (some of which are affiliated with Business Links), the results for Chambers and Business Links could be biased in their favour.

Large and small firms compared

By and large, the results were similar for companies of all sizes. A notable exception is the reliance on friends and colleagues among the self-employed (42%) and small firms (30.6%). In contrast, only 24% of large firms (23.5%) and 21% of medium sized firms look to friends and colleagues for information. This probably reflects the lack of in-house IT staff in smaller firms; they must rely more heavily on their network of trusted friends and colleagues to provide them with general information and to help them choose service providers.

Where would you look for information on broadband internet?

Resource	Share of firms by group (%)					
	ALL	Self-employed	1-19	20-49	50-249	250+
Telecoms provider	66.3	66.3	66.4	64.1	67.4	71.2
Internet/website	63.6	63.2	63.8	60.8	65.4	68.9
Internet service provider	42.4	47.5	42.1	39.4	42.6	49.2
IT provider/support specialist	34.1	22.1	31.2	39	44.6	43.9
Friends/colleagues	29.2	42	30.6	25.4	21.4	23.5
Local Chamber of Commerce	19	28.2	20.8	15.7	12.2	9.8
Local Business Link	10.2	12.6	11	9.4	7.6	4.5
UK Online for Business	8.9	13.8	9.8	6.1	6.6	6.8
Don't know/not applicable	4.8	5.8	4.6	4.3	5.2	5.3
Other	2.8	5.8	2.8	1.9	2.4	1.5

Appendix: Broadband Survey Questionnaire

For the second year running, the British Chambers of Commerce is undertaking a major survey exploring businesses' attitudes towards information communications technology. This year's survey will focus primarily on Broadband use and its benefits. Your responses will be treated in confidence. Please take a few minutes to complete this questionnaire and return it by 4th July 2003 using the FREEPOST address at the end. Alternatively you can complete the questionnaire online at www.mattersoffact.co.uk/bccitsurvey.

A. BUSINESS PROFILE

1. Which Chamber are you a Member of?

2. What is your principal business activity? *(Please cross one only)*

Agriculture, forestry, fishing, mining, utilities	<input type="checkbox"/>	Transport / distribution / storage	<input type="checkbox"/>
Manufacturing consumer goods	<input type="checkbox"/>	Marketing / media	<input type="checkbox"/>
Manufacturing investment goods/ goods used in the production process	<input type="checkbox"/>	Professional services (e.g. financial, accounting, legal, IT support, recruitment, consulting)	<input type="checkbox"/>
Construction	<input type="checkbox"/>	Consumer services	<input type="checkbox"/>
Retailing / wholesaling	<input type="checkbox"/>	Public or voluntary sector services	<input type="checkbox"/>
Hotels / restaurants	<input type="checkbox"/>	Other services	<input type="checkbox"/>

3. How many full-time equivalent staff does your company employ?

	None – self-employed	1-19	20-49	50-249	250-499	500+
At this site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In total in the UK <i>(if different from above)</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Approximately what proportion of your total UK staff works from more than one location (including home) a day or more a week on average? *(Tick one only)*

None	1-10%	11-25%	26-50%	51-75%	76-100%	Don't know Not applicable
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B. USE OF INFORMATION TECHNOLOGY

5. Which (if any) of the following functions do you conduct on your internal computer system/network and which externally over the internet? *(Tick all that apply)*

	Internal computer system/network	External internet	Don't know / not applicable
Accounts management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Record retrieval	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HR/employment records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sales/Customer Relationship Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchasing/procurement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design & production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please turn over

6. Which (if any) of the following technologies does your company currently use or plan to use? (Tick all that apply)

	Currently use	Plan to use	Don't know / not applicable
Internal e-mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External e-mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Company website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intranet (internal private website)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extranet (provides external web access to part of your businesses network for a restricted group of users)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wide Area Network or WAN (network connecting computers at different external sites)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local Area Network or LAN (network connecting computers on one site)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WiFi or Wireless LAN (allows for wireless access to local area networks or internet)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electronic Data Interchange or EDI (allows for transmission of orders, invoices and payments electronically from different locations via private network)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet Protocol or IP Telephony (allows data, voice and video to be transmitted over a single network infrastructure)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Have any of your employees received IT training in the last 2 years?

Yes No Don't know/ Not applicable

C. BUSINESS VIEWS ON BROADBAND

8. Where (if anywhere) would you look for information on Broadband internet? (Tick all that apply)

Internet/websites	<input type="checkbox"/>	Local Business Link	<input type="checkbox"/>
Telecoms provider (e.g. BT, NTL)	<input type="checkbox"/>	Don't know/not applicable	<input type="checkbox"/>
Internet Service Provider (ISP)	<input type="checkbox"/>	Other	<input type="checkbox"/>
IT provider/support specialist	<input type="checkbox"/>	<i>Please Specify</i>	
Friends/colleagues	<input type="checkbox"/>		
UK Online for Business	<input type="checkbox"/>		
Local Chamber of Commerce	<input type="checkbox"/>		

9. What (if any) do you perceive to be the benefits of a Broadband internet connection for your business? (Tick all that apply)

Increased sales	<input type="checkbox"/>	Ability to create more flexible working arrangements i.e. remote working	<input type="checkbox"/>
Reduced operational costs	<input type="checkbox"/>	More effective communication	<input type="checkbox"/>
More efficient procurement process	<input type="checkbox"/>	No perceived benefits	<input type="checkbox"/>
Improved business productivity	<input type="checkbox"/>	Don't know	<input type="checkbox"/>
Better access to e-learning	<input type="checkbox"/>	Other	<input type="checkbox"/>
Reduced requirement for specialist IT skills	<input type="checkbox"/>	<i>Please Specify</i>	
Competitive advantage	<input type="checkbox"/>		

10. To what extent do you agree or disagree that Broadband is critical for your business to succeed?

Strongly agree	Agree	Disagree	Strongly disagree	No opinion/ Not applicable
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Within the next 5 years, do you think your business will be pressured to conduct business that requires a fast connection such as Broadband?

	Yes	No	No opinion/ Not applicable
By customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By suppliers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. How important is access to Broadband in your choice of business location?

Very important	Quite important	Not very important	Not at all important	No opinion/ Not applicable
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Do you currently have a Broadband internet connection? (For the purposes of this survey ISDN is not classified as Broadband)

Yes **Go to section D** No **Go to section E** No internet connection **Go to section E**

D. BROADBAND USERS VIEW

14. What type of Broadband internet connection do you use? (Tick all that apply)

ADSL (Asymmetric Digital Subscriber Line)	<input type="checkbox"/>	3G/2.5G Mobile Phone	<input type="checkbox"/>
Cable (NTL, Telewest)	<input type="checkbox"/>	Don't know	<input type="checkbox"/>
Satellite	<input type="checkbox"/>	Other Broadband	<input type="checkbox"/>
Wireless Broadband	<input type="checkbox"/>	<i>Please Specify</i>	
High-speed Leased Line	<input type="checkbox"/>		

15. How satisfied are you with the following aspects of your Broadband internet connection?

	Very satisfied	Quite satisfied	Quite dissatisfied	Very dissatisfied	No opinion/ Don't know
One-time installation cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Ease of installation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Monthly cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Return on investment in Broadband	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Consistency of speed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Quality of service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Quality of technical support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Choice of Broadband suppliers in your area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

***You have now completed the questionnaire.
Please return it by 4th July 2003 using the freepost address at the end.***

Please turn over

E. BROADBAND NON USERS VIEW

16. What (if any) type of internet connection do you use? (Tick all that apply)

- | | | | |
|--|--------------------------|--|--------------------------|
| No internet connection | <input type="checkbox"/> | Don't know | <input type="checkbox"/> |
| Dial-up connection Via Modem (56Kb) | <input type="checkbox"/> | Other slow connection | <input type="checkbox"/> |
| ISDN (Integrated Services Digital Network – 64K or 128K) | <input type="checkbox"/> | <div style="border: 1px solid black; padding: 5px;">Please Specify</div> | |
| GPRS Mobile Phone (9.6K) | <input type="checkbox"/> | | |

17. Do you plan to acquire a Broadband internet connection? (Tick one only)

- | | | | |
|----------------------------------|--------------------------|---------------------------|--------------------------|
| Yes – As soon as it is available | <input type="checkbox"/> | No definite plans | <input type="checkbox"/> |
| Yes – Within a year | <input type="checkbox"/> | Not ever | <input type="checkbox"/> |
| Yes – Within 2 to 3 years | <input type="checkbox"/> | Don't know/not applicable | <input type="checkbox"/> |

18. Why don't you currently use a Broadband connection? (Tick all that apply)

- | | | | |
|---|--------------------------|--|--------------------------|
| Not available (this is a rural/isolated area) | <input type="checkbox"/> | Satisfied with current connection | <input type="checkbox"/> |
| Not available (this is an urban/industrial area) | <input type="checkbox"/> | Don't like choice of service providers available | <input type="checkbox"/> |
| Too expensive | <input type="checkbox"/> | Can't see the benefit | <input type="checkbox"/> |
| Don't know enough about it | <input type="checkbox"/> | Don't know / not applicable | <input type="checkbox"/> |
| Too much of a hassle to install it | <input type="checkbox"/> | Other | <input type="checkbox"/> |
| Poor quality technical support | <input type="checkbox"/> | <div style="border: 1px solid black; padding: 5px;">Please Specify</div> | |
| Employees lack technical expertise to make full use of it | <input type="checkbox"/> | | |

19. Have you investigated obtaining satellite Broadband?

- Yes No Don't know/ Not applicable

20. If yes, why did you choose not to take it up? (Tick all that apply)

- | | | | |
|--|--------------------------|--|--------------------------|
| Technical problems due to increased signal delay | <input type="checkbox"/> | Prefer to wait for a terrestrial wireless scheme | <input type="checkbox"/> |
| Cost | <input type="checkbox"/> | Other | <input type="checkbox"/> |
| Planning implications for dish | <input type="checkbox"/> | <div style="border: 1px solid black; padding: 5px;">Please Specify</div> | |

Thank you for taking the time to complete the questionnaire. Please return it by 4th July 2003 using the freepost address below. The results, which will be released this Autumn, will help to shape future government policy. If you would like further information on the survey please contact Melissa Ream at BCC on (020) 7654 5800 or email m.ream@britishchambers.org.uk.

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