

# The Ofcom Internet and Broadband Update January 2004

## 1. Key statistics

### Internet access<sup>1</sup>

- 59% of UK homes have a PC
- 50% of homes (around 12.5 million) have Internet access
- 68% of small businesses have Internet access

### Broadband<sup>2</sup>

- 3.2 million broadband connections
- 1.82 million DSL connections
- 1.36 million cable modem connections<sup>3</sup>
  
- 12% of homes have broadband
  
- DSL is available to 85% of UK homes and businesses<sup>4</sup>

## 2. Key developments

### BT introduces new pricing structure for ADSL Exchange Activate

On 2 January 2004, BT introduced a new pricing structure for ADSL Exchange Activate, the solution designed to deliver ADSL broadband to small communities.

ADSL Exchange Activate allows a community of users to purchase from BT Wholesale (via a service provider) the network capability to provide high speed internet access to 30 end users. When it was launched in July 2003 it was charged as a single up-front payment of £45,000 for 30 users for a three year period. The new wholesale pricing model reduces the up-front payment to £25,000 and introduces connection and monthly line rental charges at the same rate as BT IPStream Home 500.

### Ofcom announces spectrum allocation

On 29 December 2004, Ofcom announced the allocation of spectrum intended to deliver a new kind of low-cost wireless broadband connection to the most remote communities in the country.

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<sup>1</sup> www.ofcom.org.uk (market research will be published at the end of January 2004)

<sup>2</sup> Data collected by Ofcom directly from operators. Ofcom validates this data by cross referencing to Ofcom market research and companies' financial statements.

<sup>3</sup> Partially based on Ofcom estimate

<sup>4</sup> BT estimates that 85% of people live in areas where an exchange has been upgraded. It advises that technical limitations mean 97% of the population within an enabled exchange area can get broadband services.

The new services will be licensed by Ofcom under a light touch licensing regime. This will enable service providers to offer the service at a nominal licensing cost of £1 per terminal installed per year (subject to a minimum cost of £50 per year).

Wireless broadband services based on the newly-released 5.8GHz Band C spectrum range will offer significant benefits to people who live and work in the UK's rural communities, many of whom are unable to access fixed-line broadband infrastructure. The first 5.8GHz Band C services are expected to come to market through 2004.

### **DSL available to 85 percent of UK**

At the end of 2003, BT announced that DSL was available to 85 per cent of UK homes and businesses<sup>4</sup>.

### **Oftel and Ofcom publish proposed regulation of Wholesale Broadband Access Market**

On 16 December 2003, Oftel and Ofcom agreed on a joint draft decision on the regulation of the UK's wholesale broadband access market.

Oftel and Ofcom have found that:

- The market for broadband internet services is distinct from that for dial-up internet access. The wholesale broadband market should therefore be considered in its own right. The regulators also found that the wholesale broadband market is national in nature.
- BT has Significant Market Power (SMP) in the UK wholesale broadband market (excluding Hull). Oftel and Ofcom are therefore proposing a number of regulatory obligations on BT including requirements not to unduly discriminate, to provide quality of service information and to have accounting separation.

Oftel and Ofcom also found that BT should be required to provide its DataStream products on a retail minus basis. This means BT must allow sufficient margin between the price it charges for its IPStream products and the price charged for the DataStream products. The actual retail minus margin will be set following consultation in the first quarter of 2004. Full details of the draft decision can be found at <http://www.ofcom.org.uk/consultations/current/wbam>

## **3. Take-up**

### **Take up of narrowband Internet packages by residential users**

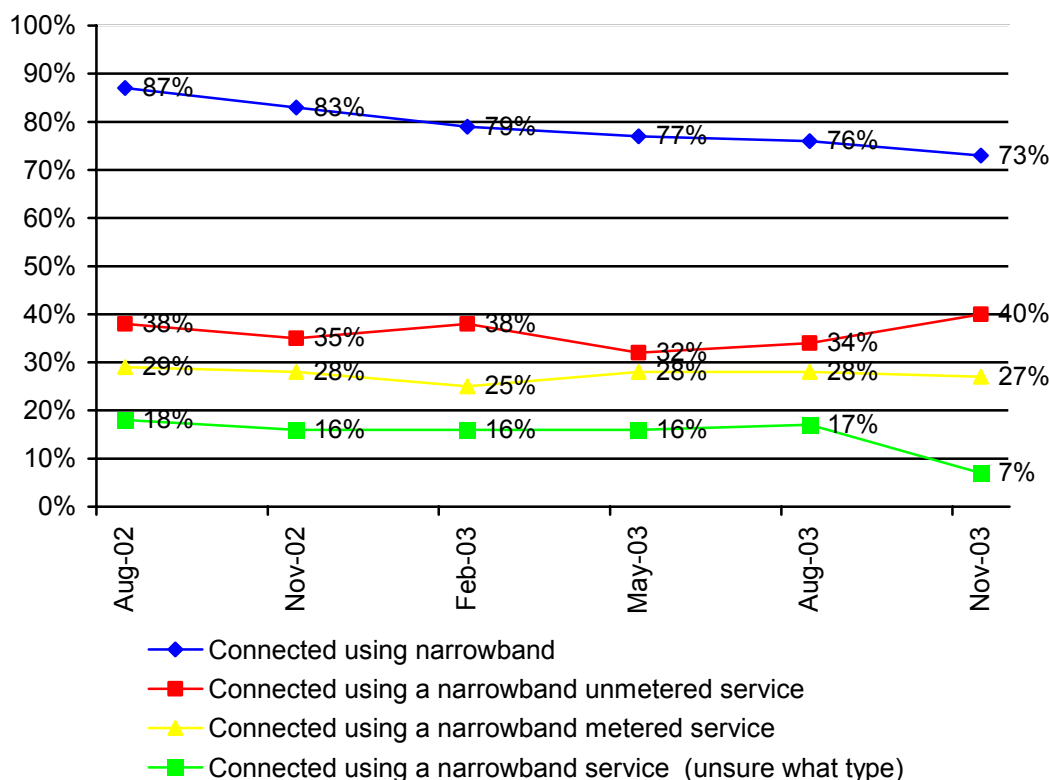
According to the latest market research survey commissioned by Oftel, 50% of UK homes are connected to the Internet, of which:

- 73 % connect using narrowband
- 40% connect using a narrowband unmetered service
- 27% connect using a narrowband metered service

- 7% are unsure what type of narrowband connection they have<sup>5</sup>

The decline in the use of narrowband services continues to fall as consumers upgrade to broadband, although a proportion of new Internet users may have connected straight to broadband.

**Figure 1 Trends in Internet take-up among UK homes**



These figures are based on Ofcom market research. November 2003 figures are based on a total sample size of 1028 UK homes with Internet.

Source: published by Ofcom [www.ofcom.org.uk](http://www.ofcom.org.uk) (to be published end January 2004.)

### Take up of narrowband Internet packages by SMEs

According to the latest market research survey commissioned by Ofcom, 68% of UK SMEs are connected to the Internet, of which:

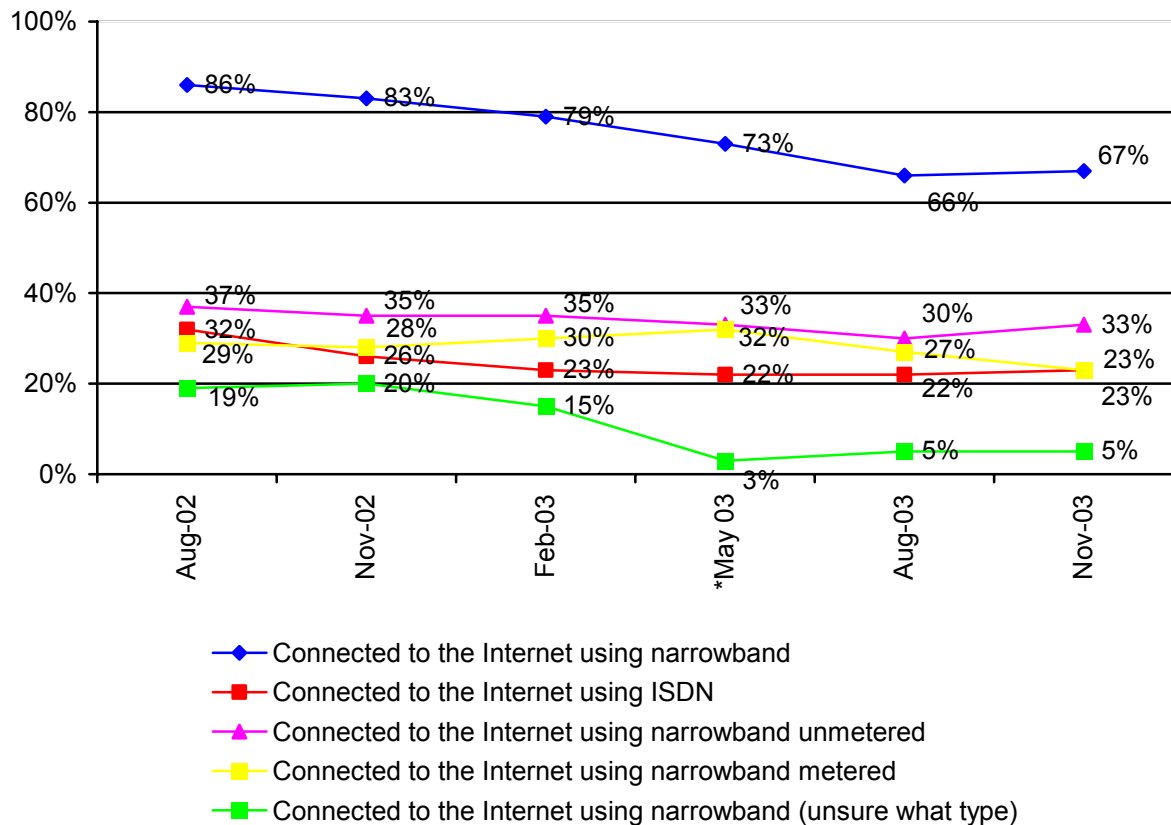
- 67% connect using narrowband
- 23% connect using ISDN
- 33% connect using a narrowband unmetered service
- 23% connect using a narrowband metered service

<sup>5</sup> Due to a slight difference in analysis this quarter the proportion of consumers unsure of what narrowband package they are using is slightly lower. There is no significant difference in the proportions using different narrowband packages.

- 5% are unsure what type of narrowband connection they have

The market has changed little in terms of overall Internet usage by SMEs in the last 18 months, however the trend of switching to faster connection methods continues. This seems to have had an impact on levels of satisfaction which have risen to 92%.

**Figure 2 Trends in Internet take-up among UK SMEs**



These figures are based on Ofcom market research. November 2003 figures are based on a total sample size of 805 UK SMEs.

Source: published by Ofcom [www.ofcom.org.uk](http://www.ofcom.org.uk) (to be published end January 2004.)

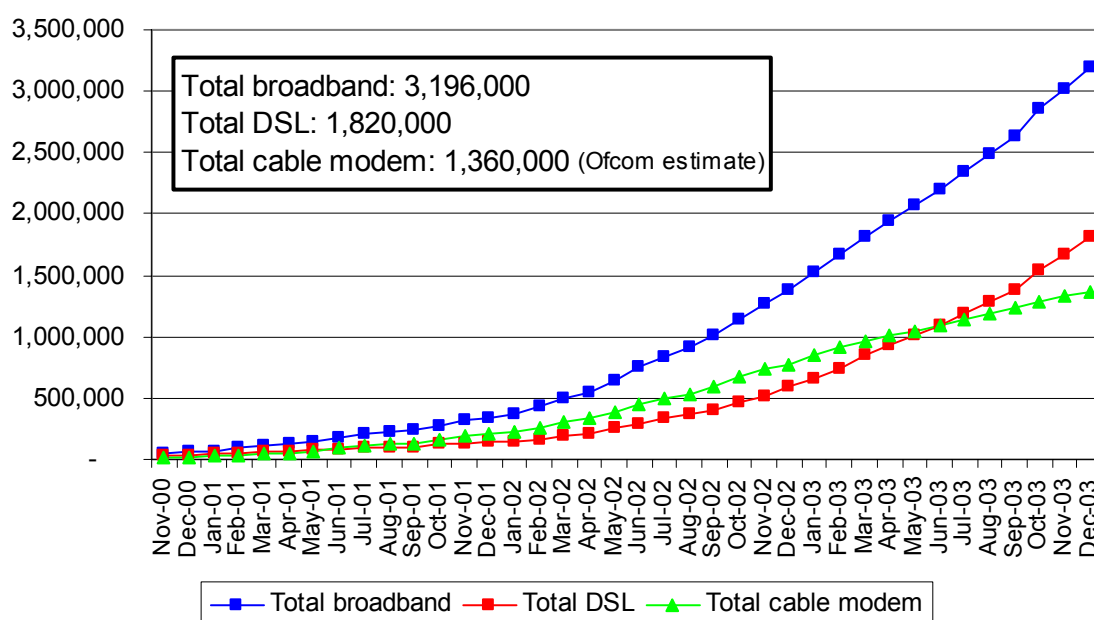
## Take up of broadband by residential users and SMEs at end December 2003

<b>Total broadband connections</b>	<b>3, 196,000</b>
<b>UK homes with broadband</b>	<b>12%</b>
DSL connections	1,820,000
Cable modem connections	1,360,000 <sup>6</sup>
Fixed wireless connections	Over 2,500 <sup>7</sup>
Satellite	Over 6,000 <sup>7</sup>
Unbundled local loops	8,200

These figures are based on data collected by Ofcom directly from broadband providers. Ofcom cross-checks the data it is given with companies' quarterly financial reports and assesses this against other third-party sources of market research.

On the basis of the data provided, at the end of December 2003, the UK had reached almost 3.2 million broadband users, with over 40,000 new connections each week.

**Figure 3 Growth in UK broadband connections**



Source: Ofcom (Underlying figures are confidential)

<sup>6</sup> Partially based on Ofcom estimate

<sup>7</sup> Wireless and satellite figures are underrepresented, as they do not include all subscribers to rural community networks.

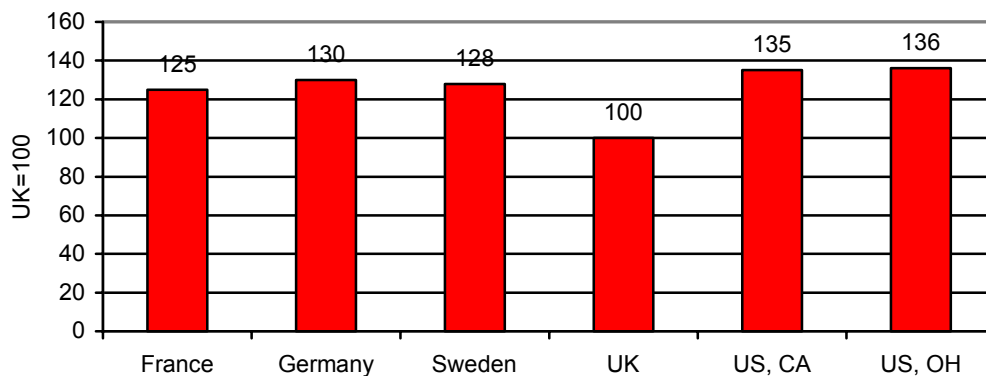
## 4. Prices

OfTel's October 2003 international benchmarking study compares the cost of residential and business Internet access in the UK with Internet services in France, Germany, Sweden and the United States. This study is a follow up to the study published by OfTel in June 2003, based on prices at February 2003.

### Residential and business basic Internet access ('dial-up' or 'narrowband')

The results in the chart below show that, based on the sample of service providers selected for residential consumers, UK prices are significantly cheaper than all other countries for basic, dial-up, Internet access.

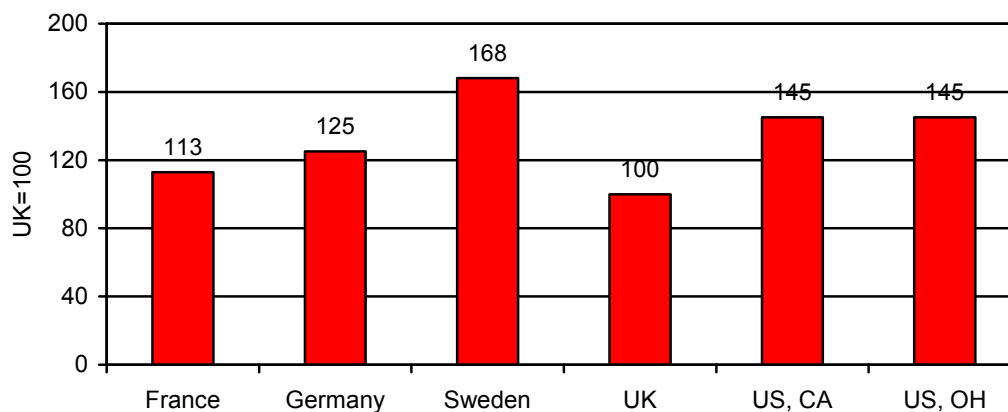
**Figure 4 Comparison of residential basic Internet services, August 2003**



**Source: OfTel International benchmarking report, published October 2003**

Similarly, UK prices for narrowband services aimed at business users are lower than the other countries included in the study.

**Figure 5 Comparison of business basic Internet services, August 2003**



**Source: Oftel International benchmarking report, published October 2003**

## Broadband prices

Of tel's October 2003 study considers two baskets when comparing residential broadband services. These are:

- 'higher speed' broadband services offering speeds of 257 kbps and above; and
- 'entry level' broadband services which take into account the low speed broadband services with a minimum speed of 128 kbps, that are available in most of the benchmarked countries.

## Residential broadband prices

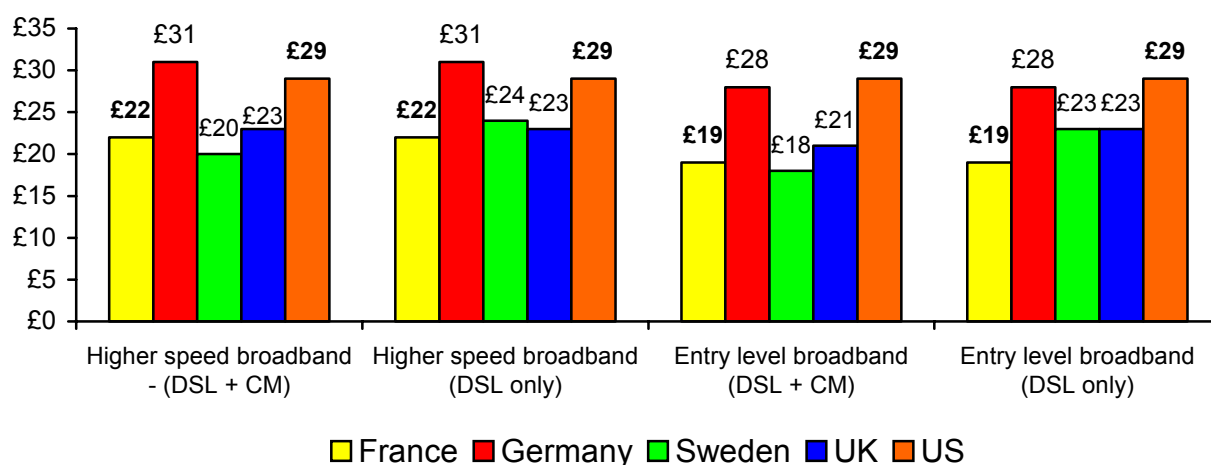
For the residential 'higher speed' broadband basket (i.e. where the consumer has a minimum bandwidth requirement of 257 kbps downstream):

- when cable modems are included prices in the UK are significantly cheaper than Germany and the US, similar to France and only in Sweden are prices cheaper; and
- when cable modems are excluded the UK is similar to France and cheaper than all other countries.

For the 'entry level' residential broadband basket (i.e. when there consumer has a minimum bandwidth requirement of 128 kbps downstream):

- when cable modems are included, UK prices are significantly cheaper than Germany and the US and more expensive than France and Sweden; and
- when cable modems are excluded only in France are prices cheaper than the UK.

**Figure 6 Comparison of residential broadband Internet services, August 2003**



Source: Of tel International Benchmarking study published October 2003

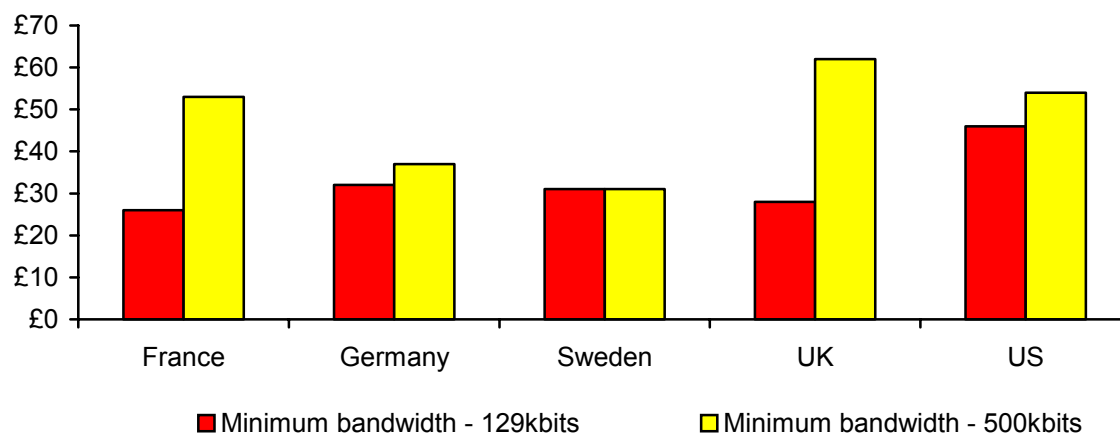


## Business broadband prices

- For the most basic services available to business (i.e. where the business has a minimum bandwidth requirement of 257 kbps downstream), only in France are prices cheaper.
- For business services where a minimum *geometric mean* bandwidth of 500 kbps was required, UK prices are more expensive than the other countries benchmarked.

Since the last benchmark, the UK's relative position for basic business services has improved against all countries except France. When there is a minimum speed of 500kbit/s, the UK's position has also improved since February 2003. However, the UK is still the most expensive country but it is now closer in-line with the US and France.

**Figure 7 Comparison of business broadband Internet services, August 2003**



**Source: OfTel International Benchmarking study published October 2003**

## 5. Availability

Narrowband Internet access is available to all households and businesses with a fixed telephone line. The vast majority of ISPs are available to consumers nationwide.

Around 85% of the UK has access to broadband via DSL and around 45% via cable modem. Broadband fixed wireless access offers broadband to around 12% of the UK and satellite, though not currently a mass-market product, has the potential to deliver broadband across the UK.

### Cable modem availability

Cable networks pass around 50% of UK homes. At present, 45% of UK homes (around 11 million) are passed by broadband enabled cable.

ntl and Telewest are both working to upgrade their networks to deliver broadband services to consumers in all the areas covered by cable networks. Telewest services are currently available to 4.9 million homes, of which 96% are broadband capable. NTL services are currently available to 8.4 million homes, of which 79% are broadband capable.

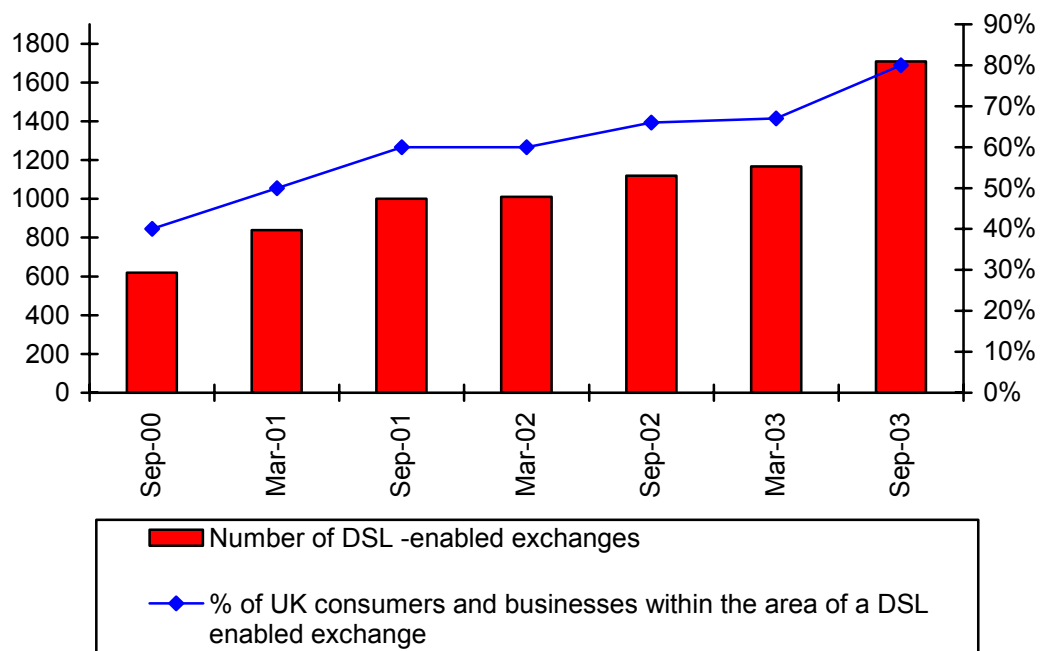
### DSL availability

By the end of 2003, BT had DSL enabled 2114 exchanges across the UK. BT estimates 85% of UK homes and businesses can get DSL services.

**Figure 8 Rollout of DSL across UK**

Month	Number of exchanges DSL enabled	% UK covered
July 2000	516	35%
September 2000	619	40%
March 2001	839	50%
September 2001	1000	60%
March 2002	1010	60%
May 2002	1115	66%
August 2002	1116	66%
September 2002	1119	66%
November 2002	1120	66%
March 2003	1167	67%
May 2003	1322	69%
July 2003	1507	71%
September 2003	1708	80%
November 2003	2000	85%
December 2003	2114	85%

**Figure 9 Rollout of DSL across UK**



Source: Ofcom

In November 2003 BT extended its demand registration scheme for DSL broadband by setting triggers for a further 2,300 exchanges. If all these exchanges are enabled more than 99 per cent of UK homes and businesses would be within the area of a broadband enabled exchange.

Since the web-based registration scheme was launched, more than 680,000 customers have recorded their interest in getting ADSL broadband. By the end of December 2003, around 930 exchanges had been upgraded as a direct result of the scheme. A further 548 exchanges were in build. This leaves 600 of the very smallest exchanges without a trigger level. These exchanges serve around 100,000 households in total and have under 300 customers each.

BT's aim is, with the help of regional and local partnerships, to roll out broadband to 100% of the UK by 2005.

Further information about BT's DSL rollout is available at [www.bt.com/broadband](http://www.bt.com/broadband)

### **Wireless availability (including satellite)**

#### **Broadband fixed wireless access (BFWA)**

Current broadband fixed wireless access base stations have the potential to cover around 12% of the UK. These are mainly in urban areas where line of site is needed from the base station to a customer's premises.

#### **Community wireless networks**

At a regional level, a growing number of groups are developing community wireless networks, especially in areas where ADSL and cable modems are not available. These services are being used by both residential and business users.

#### **Wi-Fi hot spots**

Wi-Fi hotspots are based on the 802.11b standard, and allow anyone with a wireless-enabled PDA or laptop to surf the Internet and send e-mail at high speed, without having to plug into a network. Wi-Fi hotspots are being built throughout the UK and Ireland at locations such as railway stations, airports, business parks and coffee shops.

Currently there are a number of operators offering services, including BT Openzone, T-Mobile, Megabeam and UK Explorer. In January 2004, BT Openzone reported it had 1,700 operational wi-fi sites in the UK.

#### **Satellite**

Two-way and one-way satellite access is also available throughout the UK, offering the potential to reach those parts of the UK outside of the reach of ADSL or cable modem services. There are over 70 satellite service providers in the UK.

Satellite also has the potential to provide backhaul for community broadband providers.

Further information about satellite in the UK is available at [www.rabbit-broadband.org.uk](http://www.rabbit-broadband.org.uk)

## **6. Government targets**

The Government's target is for the UK to have the most extensive and competitive broadband market in the G7 by 2005. The DTI measures the UK's progress every 6 months based on an index developed jointly by Government and the Broadband Stakeholders Group (BSG). Towards the end of the 2003, the Government reported on the UK's progress:

- Based on the extensiveness index, which combines coverage and the addressable market, the UK moves up to third equal with the USA.
- Based on the competitiveness index, which measures choice, price and regulation, the UK is ranked third.
- Based on the take-up index, the UK is joint sixth in the G7 ranking for take-up with Italy.

## **7. Definitions**

'Dial-up' or 'narrowband' Internet access is used in this brief for access speeds up to and including 128 kilobits per second (kbps).

'Broadband' is used in this brief to refer to higher bandwidth, always-on services, offering data rates of 128 kbps and above.

This definition of broadband is used by Ofcom for the purposes of measuring take-up in order to capture the dynamic range of services available to residential and business consumers that are classed by the industry as broadband. This definition gives Ofcom data that is comparable with broadband take-up figures published by other countries in Europe.