



Internet access to go

Mobile broadband and Wi-Fi hotspots explained

With mobile broadband, you're not restricted to using the internet at home or work. For a fee, you can surf the web from a laptop computer on trains, in cafés and even on the beach.

O2, Orange, 3, T-Mobile, Virgin Mobile and Vodafone all offer mobile broadband services. They'll provide you with a small internet modem, or 'dongle', that you plug into your laptop's USB port. Using the same technology that offers fast internet access on mobile phones, you'll get broadband wherever there's a third generation, or '3G', mobile signal. The 3G signal covers up to 90% of the UK population – you can check coverage maps on providers' websites.

The 3G signal is strongest in well-populated areas – but coverage can drop in and out while you're moving.

Which? wanted to find out how the services work for a typical customer – see p37 for our findings. We've also surveyed members to find out how you rate mobile broadband services (p38).

Costs, caps and speeds

There are two types of mobile broadband tariff: pay monthly and pay as you go (PAYG). You can buy PAYG credit

that lasts from one day to one month, and you'll need to buy the dongle upfront. For frequent users, a monthly contract will usually be cheaper. Longer contracts may include free dongles. Your computer will need to meet certain specifications for mobile broadband to work – check with the mobile broadband provider before you sign up.

Providers can limit the amount of data you download – 3 gigabytes (GB) a month is a typical cap. This is plenty for most people – it's enough to use the internet for six hours a day, send and receive 300 emails a week and download 90 music tracks a week. Exceeding these limits can be pricey. Most providers charge for each additional megabyte (MB) used (see table, p38), but costs for each additional GB can be between £15 and £200. As technology improves, caps may rise and prices may fall.

Maximum speeds aren't as fast as traditional broadband. Speed also depends on connection type. High-Speed Downlink Packet Access (HSDPA or 3G+) is the fastest type of connection, followed by standard 3G. Outside 3G regions, speeds may be equivalent to using dial-up internet. See p39 for details of alternatives to mobile broadband.



ONLINE
Want to find out how fast your broadband really is? Visit
www.which.co.uk/broadbandspeed

OUR RESEARCH

Between October and December 2008, nearly 16,000 Which? online panel members told us about their broadband experiences.

In October 2008, Which? bought a mobile broadband service from 3, O2, Orange, T-Mobile, Virgin Mobile and Vodafone. We chose the cheapest PAYG (3) or one-month contract (O2, T-Mobile and Vodafone) where available, or the cheapest long contract (Orange and Virgin Media). We didn't assess price or usage limits, so the length of contract wasn't important.

Since our test, Orange has introduced a one-month contract. T-Mobile and O2 have introduced pay-as-you-go packages.

We tested each service for setup, speed, usability, customer service and ease of cancellation during October and November 2008. Our user test represents the experience of one customer. See www.which.co.uk/mobilebroadbandtest for full details of our research.

Mobile broadband put to the test

Which? broadband expert Ceri Stanaway (pictured) took the six mobile broadband providers for a test drive at home, at a London station and on the train to Brighton

Which? wanted to test whether mobile broadband makes it easy to get online when you're on the go.

We looked at **speeds**, **usability** and **customer**

service. We found that we were able to do simple tasks, such as web browsing, but downloading a piece of software while travelling was impractical,

as the internet connection wasn't reliable.

Full results of our test can be found online at www.which.co.uk/mobilebroadbandtest.



MOBILE BROADBAND SETUP

Easiest



Mobile broadband installation across the board was easy. It usually took around 10 minutes from getting the mobile broadband dongle out of the box to getting online.

Orange, O2, T-Mobile and Virgin Mobile let us set up our

Hardest



monthly contract payments online when we bought our dongles. Vodafone didn't – we had to call the company once we'd received the dongle and we had some problems accessing the dedicated phone number.

MOBILE BROADBAND USABILITY

Best



Worst



Once we'd installed the software, each service had a user interface that popped up to let us connect,

disconnect and access tools. We felt the most important tools were a help document, a data usage tracker, and an indication of signal strength and connection type (eg whether we were in a 3G area). Virgin Mobile let us do all this, and its help document was the most user-friendly. We thought Orange's interface was very basic – it lacked a data usage tracker and we couldn't locate a help menu.

MOBILE BROADBAND SPEED AND CONNECTION

Fastest

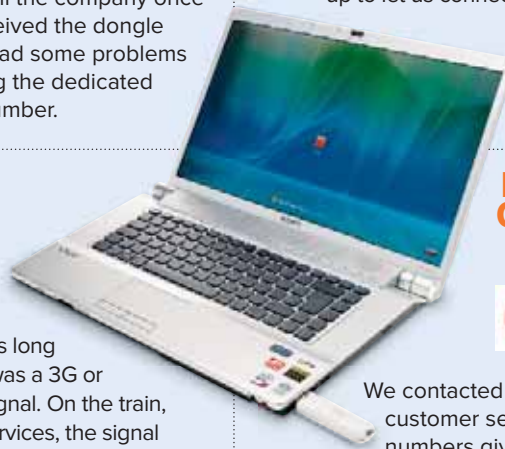


Slowest



The speeds below are the average of four successful tests at home, two tests at London's Victoria station, and one or two tests on the train. Every service delivered acceptable internet

access from a stationary location as long as there was a 3G or HSDPA signal. On the train, with all services, the signal dropped out regularly. If you want to use mobile broadband while moving, be prepared for frequent disconnections.



MOBILE BROADBAND CUSTOMER SERVICE

Best



Worst



We contacted the customer service numbers given in the paperwork that came with each mobile broadband dongle to ask about using mobile broadband in New Zealand and setting a security Pin on the dongle. We wanted to find out how knowledgeable staff were and how quickly our queries were answered.

O2 was efficient, with all questions answered in a

four-minute call. Virgin Mobile provided the best mobile broadband customer service, with comprehensive answers delivered in a friendly manner.

We thought 3 gave the worst advice – its representative initially gave us information on using contract mobile broadband – rather than PAYG – in New Zealand, and told us how to set a Pin on a mobile phone rather than the internet dongle.

	Contract	Dongle (£)	Cap (GB)	Monthly cost (£)	Average download speed (Mbps)
	30 days	39.13	n/a ^a	19.57	1.8
	18 months	Free	3	14.68	1.1
	18 months	Free	3	14.68	0.6
	PAYG	39	1	15	0.5
	1 month	29.35	3	14.69	0.5
	PAYG	48.93	1	10 ^b	0.4

a 3GB fair usage limit b PAYG credit valid for 30 days. Prices correct on 2 Feb 2009

CANCELLING SERVICES

Once we'd finished our test, we cancelled all services except 3 (as it was PAYG) in line with company policies that allowed a full equipment and service refund. For Orange and T-Mobile, this was the minimum

seven days required by the Distance Selling Regulations. Other providers offered a longer cancellation period. See www.which.co.uk/mobilebroadbandtest to find out how we got on.

How you use mobile broadband

Around 7% of Which? online panel members (see 'Our research', p36) have a mobile broadband service. A further 12% of those surveyed plan to get it or are considering getting it.

Nearly two thirds agree that with mobile broadband it's much easier to get online on the go. Four fifths of those surveyed have used it while travelling in the UK, and three in 10 have used it abroad, risking high costs.

Mobile broadband isn't set to overtake fixed-line broadband soon, though. Less than 1% of members

surveyed have mobile broadband as their main internet service, with most users in our survey preferring it as a supplement to fixed-line broadband. And more than half say that they won't give up fixed-line broadband until mobile broadband usage limits increase.

Low satisfaction

The table below shows how Which? members rate mobile broadband providers and gives details of the cheapest 18-month contract from each one. Members don't rate any provider highly enough to award a Best Buy.

Your least favourite provider is Orange, with a Which? customer score of just 37%. And even the highest-scoring provider – O2 with 44% – couldn't come close to the impressive Best Buy scores that it and Zen Internet achieved in our fixed-line broadband survey (87% and 85% respectively).

You can read more about our satisfaction results for fixed-line broadband at www.which.co.uk/broadband.



Pros and cons

Is it worth investing in a mobile broadband contract? Here are some key points to consider

PROS

- It doesn't rely on a home phone line, so there's no need to pay line rental.
- With PAYG mobile broadband there's no need to sign up to a monthly direct debit agreement.
- Some mobile broadband providers offer discounts if you have a mobile phone contract with them.



CONS

- With like-for-like usage, mobile broadband is costlier than most fixed-line broadband (see www.which.co.uk/broadband).
- Speeds, usage caps and fair usage limits are fairly low compared with fixed-line broadband.
- Costs for exceeding usage limits are high.
- Although you can use it on the go, the 3G signal can be sporadic.



USING THE TABLE

Package We have chosen the cheapest 18-month pay-monthly package with a free USB dongle. See www.which.co.uk/mobilebroadband for full details. **Speed** The maximum download

speed the equipment can reach. The actual speed you can reach will typically be much lower. **Costs above limit** What you will be charged if you go over your usage allowance. Further high charges will apply if you

use the service abroad. **Hotspot access** O2 and T-Mobile services give you access to The Cloud and T-Mobile fixed-line wireless hotspots respectively. **Which? ratings** Star ratings represent

how highly Which? members rated providers for each aspect. The more stars the better. Sample size in brackets. We did not have enough responses to rate Virgin Mobile. **Connection reliability** Based on

scores for reliability of connection and frequency of problems when connecting. **Which? customer score** Combines overall satisfaction with provider and likelihood of recommending to a friend.

18-MONTH PAY-MONTHLY MOBILE INTERNET PACKAGES

PROVIDER	PACKAGE COSTS AND FEATURES					WHICH? RATINGS BY PROVIDER					WHICH? CUSTOMER SCORE
	MONTHLY COST	SPEED (MBPS)	USAGE CAP (GB)	COSTS ABOVE LIMIT	HOTSPOT ACCESS	EASE OF SETUP	VALUE FOR MONEY	CONNECTION SPEED	CONNECTION RELIABILITY	CUSTOMER SERVICE	
O2 (78)	14.69 ^a	7.2	3	19.6p per MB	✓	★★★★	★★	★★★★	★★	★★★★	44
THREE (251)	9.79	3.6 ^b	1	9.8p per MB	×	★★★★★	★★★★	★★★★	★	★★★★	41
VODAFONE (308)	14.68 ^c	7.2	3	£14.68 per GB	×	★★★★	★★	★★★★	★	★★★★	40
T-MOBILE (107)	14.68	7.2	3 ^d	n/a	✓	★★★★	★★	★★★★	★	★★★★	38
ORANGE (70) ^e	14.68	3.6	3	1.43p per MB	×	★★★★	★★	★★★★	★	★★★★	37
VIRGIN MEDIA	14.68	3.6	3	1.43p per MB	×	n/a	n/a	n/a	n/a	n/a	n/a

^a Discounts on O2 home broadband available to mobile broadband customers ^b Dongle with maximum download speed of 7.2Mbps available for £9.78 ^c Deal also available on 12-month contract ^d Fair usage limit ^e Package available online only

Wi-Fi hotspots explained

There is another way to get online while you're out and about: Wi-Fi hotspots give you access to fixed-line broadband at a range of locations across the UK. You pay for the time you're online, but you don't have to pay for equipment, and typically there are no usage limits. Hotspots are normally quicker than mobile broadband for browsing and downloading.

In general, the more people that live in an area, the better the hotspot coverage. However, if you're travelling, coverage will probably be patchy.

How to access hotspots

You can get free Wi-Fi (see box, right), but for the best coverage you'll need to pay. BT Openzone, T-Mobile and The Cloud are the main Wi-Fi hotspot providers in the UK. All three offer a choice of monthly subscriptions or short-term access vouchers. For more information on how to connect to a Wi-Fi network see www.which.co.uk/wifihotspots. BT and The Cloud's hotspot access is available with minimum requirements of Windows 98 or OS 9 for Macs.

BT Openzone

BT Openzone gives customers access to around 3,000 Openzone hotspots, including mainline train stations and British Airways customer lounges, and more than 120,000 'BT FON' locations in the UK and Ireland (see box, right). Access to more than 1,000 T-Mobile hotspots is included in some monthly plans. Short-term access starts at £5.88 for a 90-minute

voucher. Pay-monthly deals start at £5.75 for 500 minutes of access each month, and are only available on 12- or 18-month contracts.

T-Mobile

T-Mobile has more than 1,000 UK hotspot locations, including Starbucks coffee shops, Heathrow Express trains, Southern railway's London to Brighton rail routes and BAA airports. T-Mobile's monthly plan gives you 30GB usage on T-Mobile hotspots and includes 300 minutes on BT Openzone. It costs £19.57 a month (£9.79 a month for pay-monthly mobile customers). T-Mobile's short-term vouchers are similarly priced to BT and The Cloud's – a 60-minute pass costs £5.

The Cloud

The Cloud gives you access to 6,500 UK hotspots, including Best Western and Crowne Plaza hotels, BAA airports and First Great Western railway stations. Short-term vouchers start at £4.50 for an hour. If you need regular access, The Cloud's pay-monthly deal is reasonably priced, at £6.99 a month for unlimited access – you're tied in for only a month at a time. Unlimited access to The Cloud is also included in O2's mobile broadband packages and iPhone packages.



Free Wi-Fi

Some cafés and restaurants now offer free hotspot access. Pret A Manger has free wireless internet in 130 branches, and McDonald's also provides free access in selected restaurants.

Check www.free-hotspot.com to find other free hotspots in your area. Users should be wary of security threats, such as scams in which hackers offer 'free' internet access

so they can steal personal information. To avoid becoming a victim, make sure you know the company that runs the service you are logging on to.

Before putting any personal information into online forms, check that the beginning of the web address starts 'https'. This means it is a secure page and no-one else will be able to access your data.

BT FON

Another way to hop on to a wireless network

BT FON is an optional scheme that lets BT home broadband customers share a small amount of their broadband bandwidth with Openzone customers. All of BT's home broadband packages include at least 250 minutes' access to BT Openzone and BT FON.

The FON service gives Openzone customers wireless access in residential areas. However, coverage depends on how many BT customers opt into BT FON and requires participating BT customers to keep their Home Hub wireless router switched on. Download speeds are low (up to 512Kbps) compared with traditional hotspots, so it's best for simple web browsing and sending emails.

ONLINE
Check out our handy video guide to setting up mobile broadband at www.which.co.uk/mobilebroadband/video

Contacts

3 0800 358 6946
www.three.co.uk

BT Openzone
0800 022 3322
www.btopenzone.com

The Cloud 020 7710 6529
www.thecloud.net

O2 0800 230 0202
www.o2.co.uk

Orange
0800 079 2000
www.orange.co.uk

T-Mobile 0800 956 2208
www.t-mobile.co.uk

Virgin Mobile
0800 408 9310
www.virginmobile.com

Vodafone 0808 004 4423
www.vodafone.co.uk

Zen Internet 01706 902000
www.zen.co.uk