

Cable vs ADSL

As broadband fever sweeps across the UK, 60 percent of the population are faced with a serious dilemma: should they go for a fibre optic cable solution or a copper wire phoneline ADSL service from one of the hundred or so ISPs? Guy Dixon investigates

If you live in a part of the UK that is neither an NTL or Telewest cable franchise, nor within the requisite 5.5km of an enabled ADSL exchange, we offer our utmost sympathies.

And to show you how much we genuinely care about your predicament, we've got a feature in next month's issue dedicated to the measures you can take if you're unable to get conventional broadband. This feature, however, is focused on the two thirds of the population that have the luxury of choosing between ADSL and cable.

The popular choice

According to a recent poll on the *PC Advisor* website, if our readers had a choice a majority would go down the cable route. Just under 60 percent (58.2 percent) indicated they would plump for cable broadband in preference to ADSL (41.8 percent). While Telewest claims that eight out of 10 people prefer cable, our poll nevertheless represents a significant fibre optic majority.

Furthermore, the poll result comes despite a barrage of marketing from ADSL ISPs – particularly BT Broadband, BT Openworld and AOL. In fact, cable broadband's popularity would appear to be growing among *PC Advisor* readers. We posed the same question back in the summer and online respondents were split almost down the line – cable still just edged ahead at 51.8 percent compared to ADSL's 48.2 percent.

As UK broadband signups near the two million mark, cable is still holding off advances from ADSL ISPs – especially if you accept NTL's 150Kbps (kilobits per second) customers as broadband users. We estimate there's around a million cable broadband customers compared to 860,000 or so ADSL users.

The UK's two remaining cable firms – NTL and Telewest – find themselves in a similar situation. Both companies are recovering from badly injured ligaments following the breakneck pace of their acquisition sprees. Like BT, they are riddled with debt and see broadband as a means of salvation.

In contrast to ADSL, cable modems don't use a phoneline but run over the cable provider's existing infrastructure. So not only can you use your web connection and phone at the same time, but you can also watch cable TV.

For home usage cable has until recently had the edge over ADSL in terms of speed. Both NTL and Telewest customers have been able to get 1Mbps (megabit per second) services for a year now. Telewest makes broadband cable available to 93 percent of its customers, with NTL trailing at around 85 percent.

To receive a cable-based broadband service, a fibre optic cable must run past your home. Neither company is likely to extend its franchise area any time soon, so if you're not cabled up now you won't be for the foreseeable future – unless you move house, of course.

Natural fit

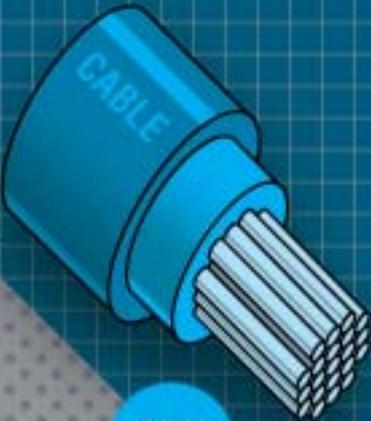
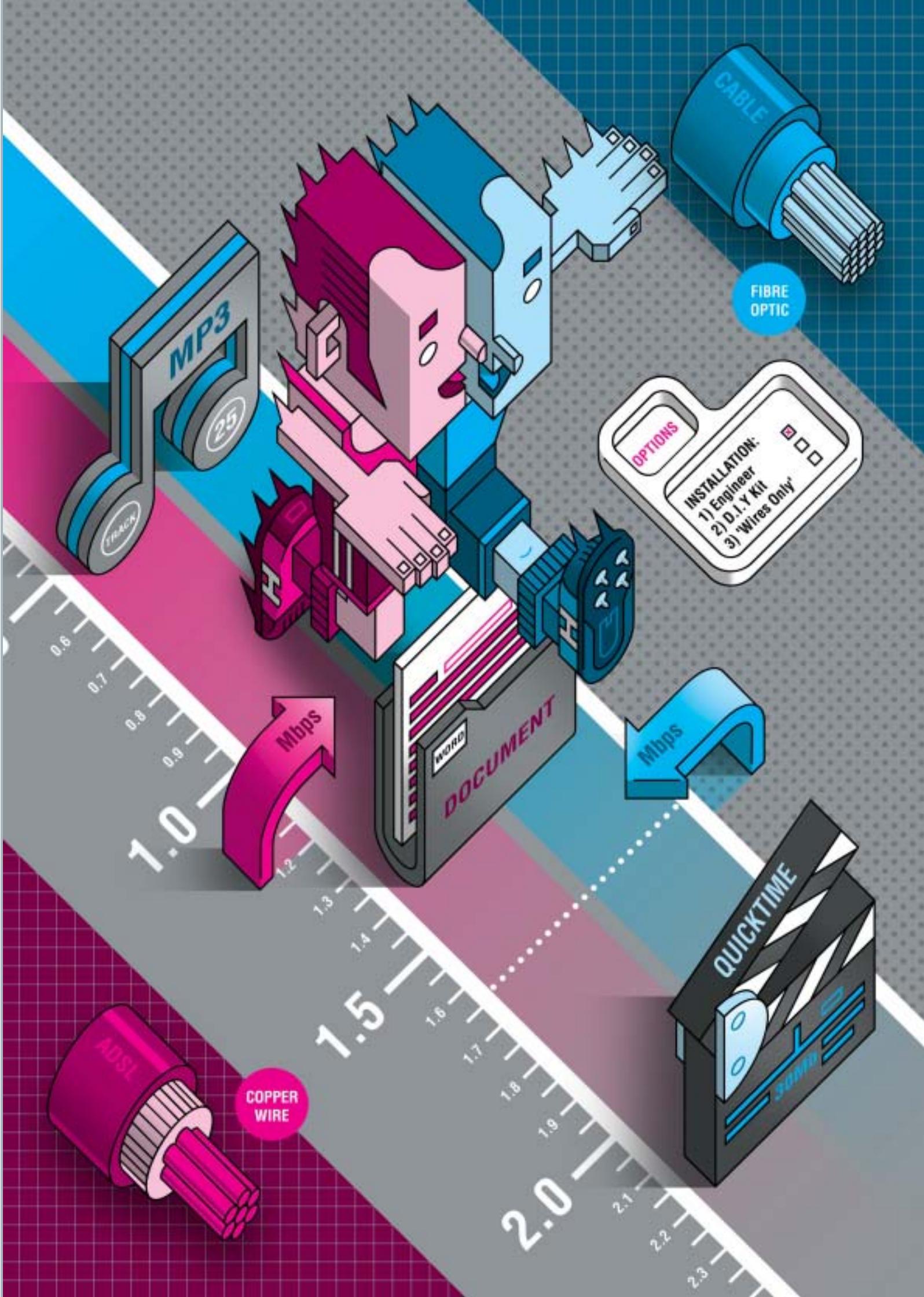
In many ways cable is a more natural fit for broadband. It's not dissimilar to ethernet and, as such, transmits data more easily than BT's copper wires. There's also no major installation work required. Both NTL and Telewest have franchises in different parts of the UK and so aren't in competition with each other. They have even been known to participate in joint marketing campaigns and pass on sales leads to one another.

Now that both companies appear to be moving away from bankruptcy, the long-term smart money is on a merger which will provide serious broadband competition for BT. Analysts believe this could happen within the next 12 months.

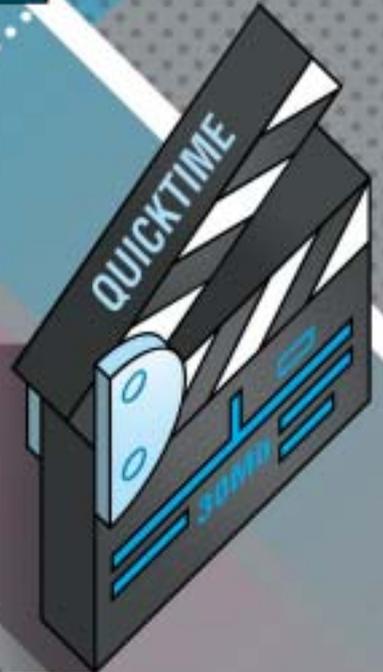
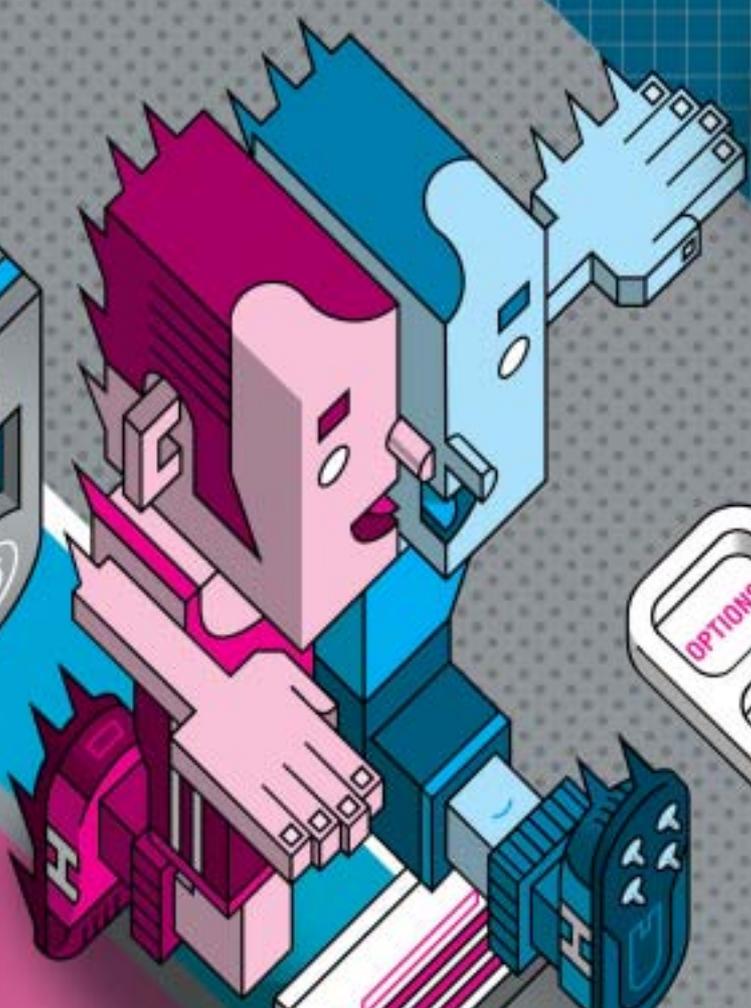
NTL and Telewest offer reasonable 512Kbps and 600Kbps deals. NTL, for example, has a 600Kbps package for £24.99 per month. The same goes for its 1Mbps service, launched back in March 02, for £34.99 per month.

Telewest has a 512Kbps service priced at £24.99 per month for phone customers and launched its £34.99 1Mbps package back in June 02. However, Telewest continues to punish customers who refuse to use its phone services as well – customers pay an extra £5 per month for the company's broadband services.

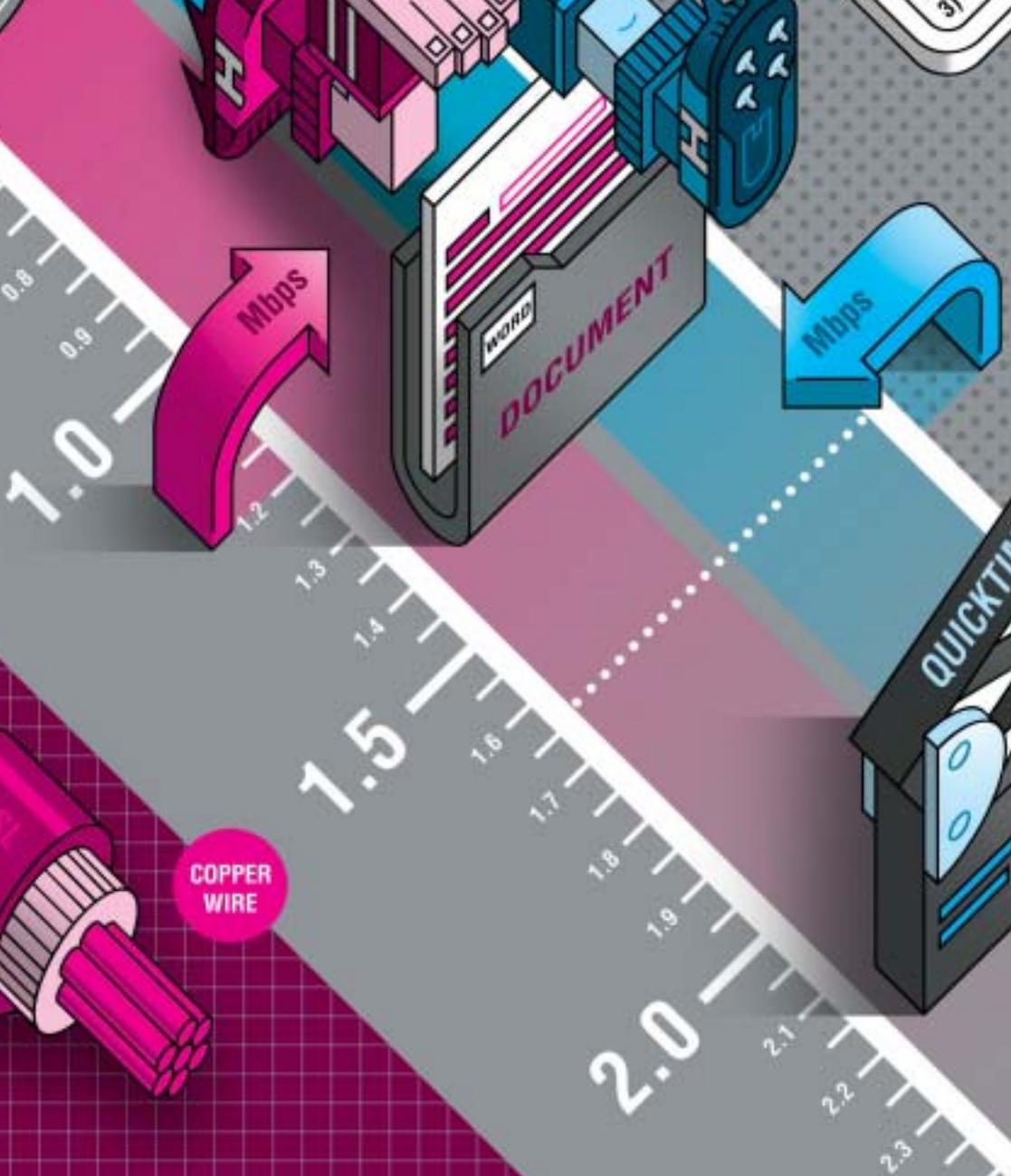
Faster speeds also beckon. In the US, 1.5Mbps connections are already the norm and 3Mbps isn't uncommon. As UK cable broadband grows, both firms could ramp things up at the flick of a switch.



FIBRE OPTIC



COPPER WIRE



The services measure up



Opt for cable and get...

1. Convergence and convenience **Currently only the cable providers can offer consumers a complete broadband internet service combined with interactive digital TV and a phone connection. Many customers find the convenience of one monthly bill and the value offered by such 'bundled' products a major advantage. As the internet, TV and phone platforms converge, customers should benefit from services that make the best of all three – for example, email accounts accessible via the TV.**
2. Ease of speed upgrades **If you want to upgrade from a 512Kbps to a 1Mbps service it takes just a matter of minutes. The cable company sends a quick hit to the local hub which increases the bandwidth segment to the customer in question.**
3. Future speed increases **Cable companies have the technology and will to beat off BT-dependent ADSL rivals in the long run.**



Opt for ADSL and get...

1. A greater range **In the last few weeks ISPs are now selling a wide variety of domestic ADSL services from speeds of 256Kbps up to 2Mbps.**
2. The waiving of upfront hardware costs **The likes of Tiscali have taken a lead in terms of minimising upfront hardware investments. The cable companies say they have no intention of following suit.**
3. Greater upstream speeds **The standard 512Kbps ADSL services on offer provide faster upstream speeds (maximum 256Kbps) than their cable equivalents (128Kbps) – worth considering if you regularly send emails with hefty attachments.**



ADSL and cable both offer...

1. Speed **Both technologies can offer much faster speeds but this will only happen when BT and the cable companies decide it is profitable to offer these services.**
2. Online gaming **Microsoft's recently launched Xbox Live service has chosen both ADSL and cable providers as its broadband partners.**
3. DIY kits **Both ADSL and cable companies offer self-install kits, as well as engineer-install options.**
4. Networking options **Both cable and ADSL broadband users can set up a home network, which means no more fighting over the household's only broadband-enabled PC.**

The current technical disadvantages in comparison to ADSL are upload speeds for the 512Kbps (Telewest) and 600Kbps (NTL) services, which are capped at 128Kbps. Users of the 1Mbps services, on the other hand, can get a maximum upstream speed of 256Kbps. You also can't get a fixed IP address, which means you can't host your own website.

Cheaper costs

Historically, upfront installation costs have tended to be lower for cable than they are for ADSL. Generally customers rent the hardware (included in the monthly payment) and pay £50 for an engineer to install it. But, as with ADSL, special offers abound so keep your eyes peeled. NTL, for example, is currently waiving installation charges for its 600Kbps and 1MB service until the end of June.

If users need a cable modem this is included as a leased item and part of the overall package. Increasingly both Telewest and NTL digital TV subscribers will have a built-in cable modem in their set-top boxes.

If you're not a subscriber, or have an older set-top box, you have no choice but to opt for separate hardware. In both cases you will need a NIC (network interface card) to connect your PC to the modem or set-top box.

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Within the bounds

The beauty of ADSL is that it can potentially be delivered to anyone living within 5.5km of an ADSL-equipped exchange. This summer sees the distance extended to 6km, lifting availability numbers of households and businesses from 93 to 99 percent.

The down side is that BT will only make the necessary investment if it believes there is sufficient demand in the area for it to be profitable. BT has committed itself to providing access to 80 percent of the UK population by mid-2005. If you fall into the remaining 20 percent you will need to look at other means of getting a broadband connection, such as satellite.

To help it sniff out pockets of demand, BT has an online preregistration scheme which allows anybody wanting to sign up for ADSL broadband to record their interest. For a full list of ADSL service providers see www.bt.com/broadband.

The preregistration website shows if an exchange is ADSL-ready; the level of demand currently registered against yet-to-be-upgraded exchanges; and the 'trigger level' BT requires before upgrading it.

A word about speed

Top speeds quoted by ISPs are often theoretical; most will claim to offer 512Kbps (kilobits per second) downstream and 256Kbps upstream. These, however, are maximum speeds and will be experienced in 'bursts'. The service rate adapts when the line is not able to sustain the full downstream 256Kbps data rate, which depends on the length of line between your premises and the exchange. As with cable broadband, the actual download speed will vary according to network congestion and the speed of servers hosting websites.



ADSL can potentially deliver download speeds of up to 8Mbps over existing copper wires. At present, though, the maximum home users can get without taking out an extra mortgage is 2Mbps.

Until recently, cable broadband enjoyed considerable speed advantages over residential ADSL connections. The past few weeks, however, has seen a number of ADSL providers matching or even surpassing the top-speed 1Mbps services offered by cable firms NTL and Telewest.

Freedom2surf, for example, is selling a residential 1Mbps ADSL service for £39.99 per month. The package includes 20MB of web space, 20 email addresses and can be cancelled within a minimum contract period of two months, whereas the cable companies tie you in for a year.

DSL reseller Nildram has stolen a march on its cable rivals by offering both 1Mbps and 2Mbps ADSL products with contention ratios of 50:1 (up to 50 people users will share the same bandwidth).

Nildram's dslXtra1000 service is priced at £39.99 inc VAT – that's £10 more than its standard Home 500 512Kbps service. The 2Mbps service costs £63.99 inc VAT.

Then there's Bulldog, which recently announced similar residential services in the central London area, and Internet Central is offering 1Mbps and 2Mbps deals at affordable prices.

Industry watchers believe such speed hikes will prompt similar moves from a raft of rival ISPs. Steve Horley, ISP and business development director at Tiscali UK, confirmed the Italian-owned ISP would be introducing a 1Mbps ADSL product by the summer. Meanwhile BT Wholesale, which sells DSL to the UK's ADSL ISPs, is also believed to be mulling over the rollout of a Home 1000 1Mbps service.

Joe Coleman, product marketing manager for BT Wholesale, confirmed to *PC Advisor* that BT was looking at a 1Mbps consumer product.

But the vast majority of residential ADSL broadband users connect through BT Wholesale's 512Kbps service and are likely to do so for the foreseeable future. In fact, Coleman said BT is considering a more competitively priced 256Kbps product which would bring ADSL broadband provision below the psychologically important £20-per-month price point.

Having procured their ADSL from BT Wholesale, with the exception of no-frills BT Broadband, ISPs bundle traditional add-ons in the form of web space, email addresses, specialist content and, most crucially, customer service.

They then price their ADSL services accordingly. This can differ by more than £10 per month for a subscription and over £100 for installation costs. Special offers waiving upfront installation and connection

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charges are worth looking out for. The contention ratio is 50:1, and whichever ISP you choose you're unlikely to be offered a lower figure. However, ISPs can decide whether to offer fixed or random IP addresses, so if you want to host your own website check with your provider.

ADSL activation

The upfront costs for installing ADSL have fallen dramatically in the past few months. A number of leading ISPs have started offering free modems and microfilters, while some are so keen to win your custom they waive activation charges. Special offers can end up saving you a tidy sum.

There are three basic ADSL installation options. Firstly you can opt for a BT engineer to visit your house, install a BT ADSL faceplate on the master socket, undertake a line test and leave you with an ADSL modem. Unsurprisingly you will have to pay good money for the privilege (usually £210 ex VAT).

It was thought that this service would be killed off by the burgeoning number of DIY kits and the prohibitive costs. However BT Wholesale is not withdrawing the service until at least the autumn.

Alternatively you can opt for the increasingly popular DIY kit option, which removes the need for a faceplate on the master socket and allows simultaneous voice and data use of the phoneline. To avoid interruptions to your phone service a filter is required for every telephone, answerphone or fax machine.

Finally there are 'wires-only' deals where you buy the modem of your choice, along with a couple of microfilters, and install everything yourself. It's worth pointing out that over 90 percent of ADSL customers now choose either a DIY or wires-only self-install option.

Make your mind up time

ADSL and cable have more common features than outstanding differences, and both technologies offer a faster, affordable future. And in each case the broadband services are sold by companies that have put the worst behind them. Broadband is at the heart of all respective future strategies offering lifestyle peripherals, such as wireless networking kit, revolutionising the way we use computers in the home. ■