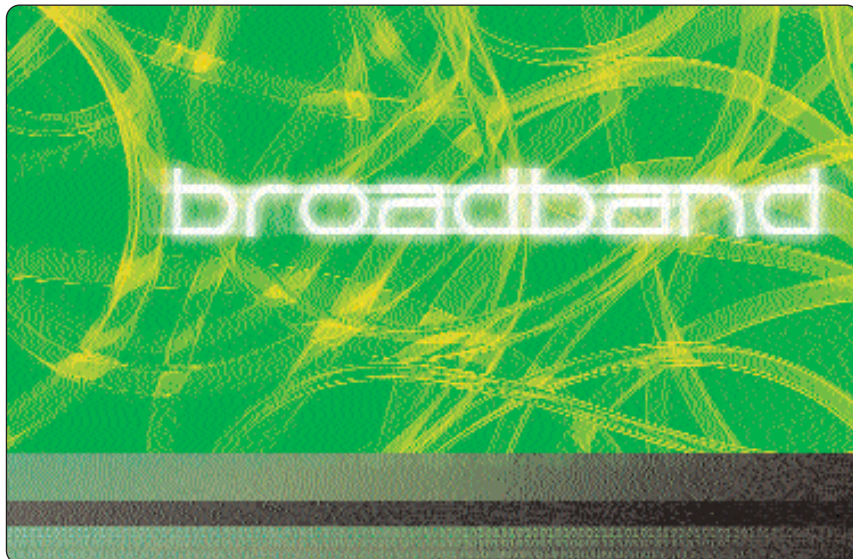# broadband Q&As

Upgrade from dialup

Q **I currently 'enjoy' flat-rate dialup access but am keen to make the move to broadband. My current service provider now offers broadband. Does it make any odds whether I simply upgrade my existing account or am I likely to get a better deal by shopping around?**

A You don't say which ISP you currently subscribe to, but by all means shop around. The only real difference between upgrading an existing dialup account or starting a new account from scratch is likely to be whether or not you get to keep your existing webmail address. However, this isn't definite even if you do upgrade with your current ISP.

Some providers simply add a suffix to your existing username in your email setup but this doesn't affect your email address. For instance, to upgrade to a Freeserve broadband account you must add '@bb. freeserve.co.uk' to your the end of your email address in the settings dialog box.

Keep existing email account

Q **Can I continue to send and receive webmail from my current ISP if I upgrade to broadband?**

A Not easily. Most ISPs require you to be logged on to their server in order to send mail. This way you can be

identified and any breaches of internet protocol attributed to you. Since this is an ISP's only way of controlling users on their network, most service providers prevent access from people trying to log on to their server system from a different network.

To send outgoing webmail over broadband using your dialup address, substitute or, better still, duplicate your dialup account so mail can be sent either from your dialup ISP's server or from the new broadband one. To set yourself up to use the new outgoing mail server, edit the outgoing mail address from 'mail.dialupispname.com' to that of the broadband ISP's mail server.

Ensure online security

Q **I have read that upgrading to broadband will make my system much more vulnerable to attack than a dialup internet connection. Is this true and what can I do to keep my PC secure?**

A The setup discs supplied with most self-install broadband products prompt you to install a firewall. Such protection is even more important than with a dialup account because broadband is an always-on connection. The advantage of this is you don't need to log on via a phoneline every time you want to surf the web. However, being

permanently online can indeed make your PC more susceptible to attack.

We recommend installing firewall and antivirus software as soon as possible. While anything is better than nothing, invest in some dedicated firewall software (ZoneLabs' ZoneAlarm, McAfee Personal Firewall or Norton Personal Firewall are good options) rather than simply relying on your provider's basic protection.

Share and share unalike

Q **I keep reading about contention ratios and how this can affect my ability to get online. What does it mean and how important is it likely to be to me?**

A The contention ratio describes how many other broadband users are logged on to your part of the ISP's broadband server and therefore how many other people you may be competing with for internet access.

ADSL (asymmetric digital subscriber line) ISPs offer a ratio of 50:1 for their consumer services and, in general, just 20:1 for business packages. Some critics think these figures are unacceptable. Cable providers, meanwhile, offer a contention rate of somewhere between 15 and 20:1.

Aside from the guarantees of broadband access at a specified rate – say, at least 500Mbps (megabits per second) – for a minimum of around 95 percent of the time, a low contention ratio is one of the reasons why business accounts costs significantly more than that charged for home use.

Because ADSL takeup in the UK has yet to become mainstream, contention issues haven't really kicked in. Industry experts, however, believe it is just a matter of time before users with 50:1 contention rates connected to busy exchanges start to notice a deterioration in their service.

Modems of old

Q **Can I use my existing external modem to get online and use a broadband service rather than shell out for a new ADSL modem?**

We're afraid not. The 56Kbps (kilobits per second) dialup modems we were all buying about five years ago are now effectively redundant. Don't throw it away just yet, though. If you install your broadband software and experience difficulties getting online, you'll need to revert to your dialup modem until the problem is solved. Often this is a case of downloading new drivers, so being able to access the internet is a must.

Broadband over several PCs

I want to make broadband access available to several PCs in the same location. The home user packages offered by some consumer ISPs are well priced but they specify that they can only be used with a single machine. I'm loath to fork out a package for each PC. Can I get round this by sharing my broadband access in much the same way I can with a peer-to-peer connection for my dialup web access?

Yes. The clutter-free way is to go wireless. For this you'll need a USB wireless network adapter for each system so it can communicate with the broadband-connected PC. Alternatively, you can go down the ethernet route – you'll need a PCI networking card (around £15) and a hub costing about £40. Check with your broadband service provider for specifics on the number of computers that can be connected in this way and precisely which hardware will be compatible with your ADSL modem.

Telephone trouble

I have no trouble surfing the web now I have broadband, but using my telephone line is a real no-no as there's so much interference and I can't hear what callers are saying. I thought the point of broadband was I could talk and surf at the same time?

This is a common problem with ADSL. Some loss of quality is to be expected – after all, you're using a phoneline for two separate purposes. However, some users have reported that their voice services become unusable.

Try uninstalling and reinstalling the broadband modem and ISP software and then shutting down. Wait at least 15

seconds. Check the wiring at the DSL (digital subscriber line) filters and ensure your modem is as close as possible to the main telephone inlet. This is preferable to it being at the end of a 10m telephone extension cord looped via three or more extension sockets, as it will degrade over distance in much the same way as your broadband service will if it's more than a certain distance from your ADSL-enabled BT exchange.

If none of this helps, get BT to run another line check and, if necessary, to come out and confirm your setup is correct. Replacing the DSL filters often helps too.

Red alert

Why do the lights on my USB modem flash red when I first boot up my PC?

This is almost certainly caused by insufficient power being pumped to the modem while your PC goes through its setup routine. It's nothing to worry about (assuming you get steady green lights once the PC is up and running) but you can get round it by plugging in your modem after bootup if you prefer.

Broadband downloads

I want to download movies and other large files using my broadband connection, but I don't want to have to sit up all night checking on its progress. Is there a way that I can set my home PC to download and monitor its progress from my office PC?

Large downloads such as full software applications and multimedia files of several gigabytes are more feasible with broadband than dialup, which is one of its real plus points. You could try pcAnywhere and control your home PC that way. Your host computer will need to have pcAnywhere installed over the top of any VPN (virtual private network) server software. And if, as is most likely, you're intending to run the host version from an office PC it will very much be down to company policy, network setup and the type of IP (internet protocol) address you have whether it is possible at all.

If these issues prove assailable, install pcAnywhere on the controlling PC, enter the

relevant IP address and map your home PC so you can, at the very least, get screen updates informing you of the download status and alerting you to the need to reboot or recommence the download should the file transfer process fail.

Long live broadband?

Dialup companies seem to be slowing down their connection rates (56Kbps has dropped from 48Kbps to more like 33Kbps), perhaps in an attempt to force their customers to move over to broadband. How do we know the same thing won't happen with broadband eventually?

It does seem that dialup services are slowing down and cutoffs for surfing longer than a specified number of hours becoming less generous. There are exceptions, such as the handful of unlimited 56K accounts now being offered for around £14 per month.

Contention ratios and the fact that customers are paying for a certain level of service (in the case of business users) and for a particular connection speed in everyone's case, should ensure that as broadband take-up becomes yet more widespread, the service remains constant.
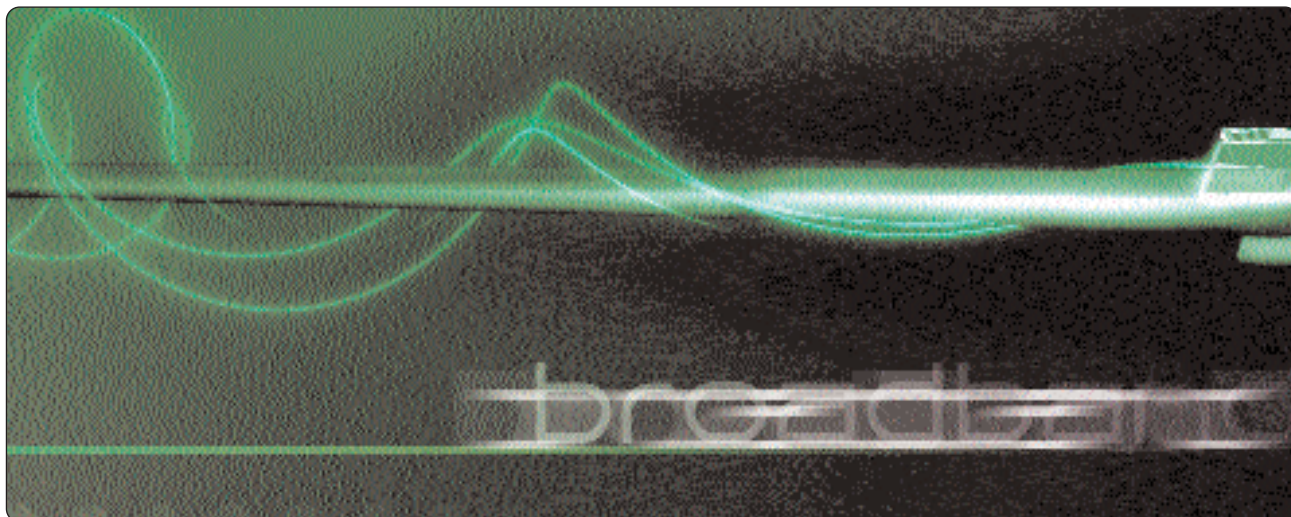
Internal modem woes

I've bought an internal PCI ADSL modem rather than opting for the pricier external USB version but am now having trouble getting it to work. After entering my broadband ISP details the software attempts to dial up but I get an error message saying I've been disconnected from the remote PC.

The PCI route is one we're sure many readers will be keen to try, not least because these internal modems cost as little as £15 compared to the hefty £70-£80 charged for external USB models.

First check you have the latest driver (a common fix for many ADSL setup problems) and ensure you are typing in the complete username and domain supplied by your broadband ISP. As explained in *Upgrade from dialup,* opposite, this tends to be different and is often lengthier than that of your dialup account. Your browser settings will also need to be changed so it never dials up. ■

broadband glossary

- **Access** To make a connection to the internet. If you access the internet from home, this will usually be done via an ISP (internet service provider).
- **Activation fee** The price your ISP charges to ADSL-enable your phoneline. This usually costs in the region of £50. Some ISPs may waive this fee as a special promotion.
- **ADSL (asymmetric digital subscriber line)** Provides high-speed internet access using an ordinary telephone line. The most common form features downstream speeds of up to 512Kbps (kilobits per second) and upstream speeds of up to 256Kbps. ADSL technology allows you to make ordinary voice calls over the phoneline while you are connected to the web.
- **Always-on** A permanent network connection which means you don't have to constantly dial up to access the internet or log off after downloading emails.
- **Bandwidth** The amount of data your internet connection can cope with: the greater the bandwidth the faster the network. Audio and video files require a lot more bandwidth than a text-based email message.
- **Broadband** This refers to an always-on connection into the home, offering speeds between 10 and 20 times faster than traditional 56Kbps dialup.
- **BT Broadband** A no-frills ADSL service from BT that offers a broadband connection to the internet without the usual trimmings.

- **BT Wholesale** The company that sells DSL (digital subscriber line) services to broadband resellers, including other BT ISPs such as BTopenworld and BT Broadband.
- **Cable modem** The UK's two cable companies, Telewest and NTL, provide internet access as well as telephone and TV services. If you don't have a modern set-top box with a built-in cable modem then you may need a cable modem for your computer in order to get a broadband connection.
- **Contention ratio** Broadband users – both ADSL and cable – compete for a share of the available bandwidth with other users. With ADSL each BT gateway has a limited amount of available bandwidth (a gateway is the term given to exchange hardware that handles the ADSL connections). Those people who are connected at the same time on the same gateway are said to be 'in contention'. A contention ratio of 50:1 means you share the available bandwidth with up to 49 other users.
- **IP (internet protocol) address** Every PC connected to the internet has an IP address – a code with four strings. Each time you connect to the web you are given an IP address. Static IP addresses remain the same every time you log on or off. This is useful if you need to connect through a firewall or into a company's private network. With dynamic or randomly allocated IP addresses, you get a different number code each time you log on.

- **Microfilters** These plug in to the phone socket and ensure that ADSL signals do not interfere with ordinary voice signals, allowing the user to simultaneously make voice calls and access the internet.
- **Narrowband** This refers to a traditional dialup connection, where your modem calls your ISP before establishing a 'handshake'. Maximum speeds are up to 56Kbps. Analysts believe the ubiquity of narrowband connections will ensure its survival for many years to come.
- **Personal firewall** Software that can protect your PC from unwanted attacks.
- **Registration scheme** If you don't live in an ADSL-enabled area, you can register your interest online. BT Wholesale has set up a registration scheme via its partner ISPs and once the number of registrations reach a predetermined 'trigger' level for your telephone exchange, you will have the opportunity to place a formal order with your ISP. Subject to the usual surveys and investigations, broadband services are then made available.
- **SDSL (symmetric digital subscriber line)** SDSL should soon be widely available to businesses offering up to 2Mbps (megabits per second) in each direction – upstream and downstream – and is generally contended at 10:1. It's symmetric because the data rate is the same in both directions.
- **Wires only** Many ADSL resellers simply provide line activation and support, allowing the customer to hunt around for their own modem and microfilters. ■