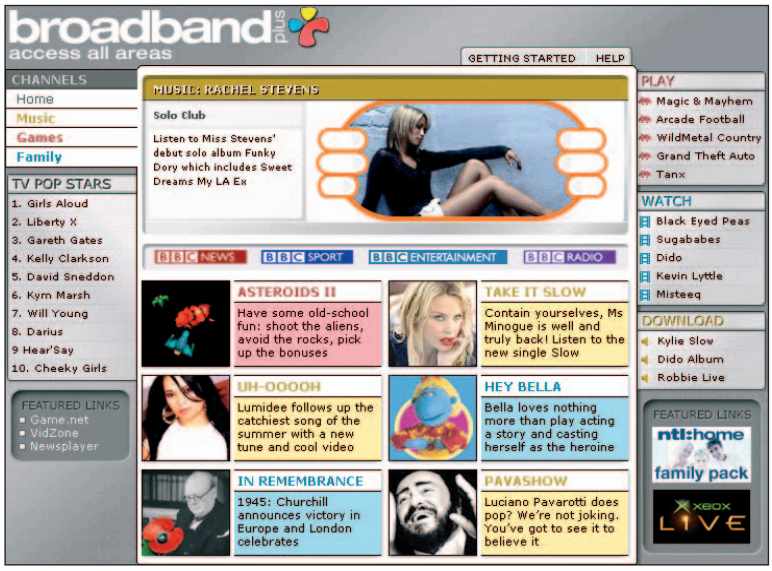
A contentious issue

Not content with tapping broadband users for up to £35 per month for high-speed internet access, broadcasters and ISPs are now hoping to sell top-up content packages. Guy Dixon reckons it will prove an uphill battle



Attempts to get broadband punters to cough up monthly subscriptions for so-called 'premium' broadband content have begun in earnest. Channel 4 got the ball rolling with 4Broadband, which costs £4.99 a month and provides interactive add-ons to TV programmes such as *Big Brother*. Back in November Sky Broadband – the TV broadcaster's ISP arm – crept aboard the bandwagon with the launch of Sky Scape, asking for £5 per month for non-Sky customers and £4 per month for existing TV subscribers.

Hoping to milk its Premiership football rights even further, the premium service is primarily aimed at fans of the beautiful game who feel the need to replay last night's goals on their office PC – irritating both colleagues and bandwidth-sensitive IT managers in the process.

Broader broadband

The most comprehensive attempt to crack the broadband content subscription nut came in December, with the arrival of NTL's Broadband Plus. Offered exclusively to customers of its 600Kbps (kilobit per second) and 1Mbps (megabit per second) services, on the face of it Broadband Plus looks like good value for money. Ironically NTL's 150Kbps broadband isn't deemed sufficiently fast to handle the company's latest broadband bundle.

Bringing together 15 separate broadband content sellers under one roof, including MTV Live, Game, Frost.tv, Pure World Cup and Encyclopædia Britannica, the broadband channels would cost £30 per month if bought on their own. NTL is charging £3.99 per month.

So why now? With three million households in Britain already paying up to £34.99 for NTL's top-speed 1Mbps service, why are ISPs asking them to dig deeper into their pockets when a combination of Google and a dozen Favorites appear sufficient for the average broadband user?

NTL points to a fundamental change in the way customers are using the internet. Driven in part by the BBC's promotion of timeshift on-demand radio, the cable company has witnessed a massive surge in the use of streaming across its network over the course of 2003.

Between the end of May and the middle of July, media streaming jumped 36-fold – from 19GB per week to 683GB. It also makes a lot of sense for the UK's biggest cable company to bundle a TV-style package in this fashion. It can handle the hosting, marketing, billing and payment – all the content provider has to do is provide the content.

Content conundrum

The problem for Broadband Plus is that, although it provides exclusive entertainment, users can get similar content elsewhere. And not just on the web. The arrival of timeshift on-demand radio is whetting the appetite of a time-poor nation hungry to see the same benefits applied to their TV viewing.

Personal video recorders from Sky and Freeview set-top box manufacturers are vying for eyeballs with Broadband Plus.

If you have a choice of watching your favourite artists on MTV – recorded at the same level of quality as the original digital broadcast – whenever you want or over a broadband connection, we predict most will opt for the former.

But Broadband Plus is interactive, NTL cries. Well so, increasingly, is digital TV. Having invested more than £100 million on the internet in the past financial year, the BBC is now putting fresh emphasis on BBCi. It offers up-to-the-minute sports news and results, 24-hour and five-day forecasts for home and abroad, an *EastEnders* video catchup service on satellite, play-along quizzes such as *Test the Nation*, voting opportunities such as *The Big Read*, extra audio and video services – all available at the click of a remote.

NTL has got its work cut out. For years we've been reading about how broadband internet usage eats into TV viewing time. Armed with interactive, hard disk-based set-top boxes and electronic programme guides, 2004 will be the year TV fights back. ☒

21st-century verification

Microchipping your cat or dog is all very well but are you ready to implant a similar device into your body? Wendy Brewer looks at the benefits of human radio-frequency tagging

A few years ago the idea of implanting microchips into our bodies for identification purposes was science fiction. But US chip manufacturer Applied Digital Solutions has crossed the line between fiction and reality with its VeriChip – an implantable miniature radio frequency device.

The chip, which measures 12x1.2mm, contains a unique identification number and other selected data. Inserted into the upper arm by a doctor, the whole procedure takes about two minutes and requires only a local anaesthetic. The VeriChip has found its way into around 30 volunteers so far.

Utilising an external scanner, radio frequency energy passes through the skin. This energises the dormant device, which then emits a signal transmitting an identity number. The chip's data can be transmitted via telephone or the internet to compliant secure-data storage sites accessible to authorised personnel.

The idea of implanting machinery into our bodies horrifies most of us, conjuring up images of *Star Trek's* half-man half-robot Borg community. But doctors have been putting metal devices into humans for years. Having a pacemaker or the odd pin or bolt fitted seems almost normal now. But we would probably be last in the queue for a small microchip in our arm – unless, of course, it was something necessary or useful.

Stop and scan

ADS spokesman Matthew Cossolotto says several main categories of application – from safety and personal identification – have been identified, but one of the most important is emergency healthcare. People who suffer from specific illnesses would benefit from microtagging. Instead of leafing through medical records, doctors could simply scan an arm to reveal its owner's history.

Many critics have pointed to the dangers of hackers replicating chips. Cossolotto says the manufacturing process has been designed to prevent replication, from the physical structure of the chip to the incorporation of a multilayer database. In many cases, extra pin numbers or identifying features would soon highlight a fraudulent user.

"It seems far-fetched to expect thieves to perform minor surgery on people to extract a chip," Cossolotto says, dismissing concerns over theft.

He also points out that we all happily walk round carrying sensitive information such as bank details and driving records in our wallets, which can be stolen easily. The chip would remove the need to carry any cards, storing all necessary information safely under the skin instead.

Cossolotto goes on to add that the chip is safer than current biometrics systems such as iris recognition which can be tricked by sunglasses or so-called 'pink eye'. VeriChip wearers can also opt out of the scheme. With biometric systems, once the user's information is stored it cannot be retracted. However, once the VeriChip is removed the ex-owner can no longer be tracked.

The chip will cost approximately £120 and will need replacing after 10–15 years. As the chips are still under test they only contain an ID number, with all the data required for various applications held on a secure database. In future, the chip will be updatable from external sources and could incorporate GPS capable of keeping track of the wearer's every move.

Current GPS systems are too large for the chip, but as with all technology it's only a matter of time before they become small enough.