

Gordon Laing is fed up with **Bluetooth promises** when there's already a wireless standard out there.

Bluetooth-ache



Everyone talks about getting connected, but it's not much good if you haven't got the right plugs or don't know where to stick them. Countless hours tearing out what little hair I have left is why I'm currently very excited about Bluetooth,

which, with any luck, will get all manner of devices talking to each other without a cable or connector in sight.

It was a couple of years ago that the rather impressive quintet of Toshiba, IBM, Intel, Nokia and Ericsson got together to hammer out a short-range wireless communications standard. The system would let two or more suitably equipped devices wirelessly connect at distances up to 10m, and at speeds approaching 1Mbit/sec. Proud of their unification of IT and telecoms companies, the standard was appropriately named after the Viking king Harald Blåtand, who achieved peace in Denmark and unified Scandinavia.

Bluetooth was born, and all was happiness and light

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— well apart from the fact there are still no devices for sale. Every year at trade shows we're told stories of how great Bluetooth will be, and that products will arrive in, ooh, let's see, about six months' time. Trouble is, I've been assured about this six-month window for about two years now. In fact, only the other day I was told that Bluetooth products would arrive some time this summer.

This endless waiting game, while not uncommon in the IT industry, has got me slightly nervous. I'm convinced that Bluetooth could revolutionise the way our portables communicate with each other, our networks and desktop peripherals, but fear that, if we're not careful, we could have a replay of infrared.

Yes, while we 'ooh' and 'aah' at undeniably groovy concept-Bluetooth applications, let us not forget that we already have a perfectly good, but tragically neglected wireless standard. Okay, infrared only works between two devices at a time and demands that they be pointing at each other, but is that so bad? Security-wise it's a

benefit as, after all, line of sight virtually eliminates the possibility of eavesdropping. Bluetooth may also boast 1Mbit/sec at launch, but infrared speeds along at 4Mbits/sec on almost every notebook. If that's not good enough, then 16Mbit IR is already here, and developers speak of 100Mbit over longer distances using lasers.

So if infrared is so good, then why don't we see it fitted to devices as standard? OK, most notebooks and PDAs are suitably equipped, as are many high-end mobile phones, but what about PCs, printers and network hubs? Each and every Bluetooth preview talks of strolling into a room with your portable and instantly connecting to a network, or being able to fire off pages on a printer. Sounds great, but this could already be done with infrared if manufacturers bothered to fit it to their PCs and peripherals. Apart from HP's brief flirtation with a handful of LaserJet printers, no-one has fitted infrared onto any desktop mains-powered device I know of.

Ah, but the Bluetooth posse cite wide industry support as confirmation of eventual success. Indeed, the original founders have since been joined by 1,200 others, including the recent arrivals of heavyweights Lucent, 3Com, Motorola and (at last) Microsoft, but I'd argue that this is far from a stamp of surefire success. Infrared already has backing from most of these big companies, but only finds itself fitted on a very limited range of devices; why will Bluetooth be any different?

To be fair, Ericsson has already shown a hands-free wireless Bluetooth headset and clip-on module to equip some of its mobile phones, but where are the other devices? While we're at it, I've not heard much about the high-level user experience either. The next time you hear someone describing how Bluetooth lets a group of notebook users instantly create a secure, wireless network, ask them exactly how this would work in practice. Will a collection of Bluetooth laptops really start talking to each other and automatically configure themselves into a wireless LAN the instant they're placed within a 10m radius? I'd like to believe it could be that easy...

I love technology predictions as much as the next person, but as release dates continue to be pushed back, I want to stop hearing about blue-sky predictions and start seeing some hard evidence. That and some guarantee that they'll appear on more than just mobile phones and portables. I'm sure Harald Blåtand would agree.

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Barry Fox has had enough of clueless users who email large, zipped files – **complete with virus.**

Foot in mouth disease



It's been called the electronic plague. The disease is spreading because PCs are now sold as a mass market commodity like VCRs, television sets and personal stereos. Getting onto the Internet and sending email has never been easier.

But Internet sign-up discs or the PCs themselves don't come with a health warning on how easy it is for a virus to burrow inside a macro, or animated greetings card, springing to life as soon as the file is opened. The virus can then bury itself in whatever messages the recipient sends out as binary files, before trashing the PC's hard disk. Those who should know better, don't.

PR people employed by high-tech computer firms often send me JPEG images, without asking whether I want them. They zip files to compress them, thereby making it more difficult for anti-virus software to scan them. Even if the software is updated each week (and how many people do this?) new viruses can slip through.

I now have a standard email reply that politely reminds anyone sending a binary that it is the words that count, not the fancy layout and fonting. Word or PowerPoint inflates a few hundred words of safe ASCII text to many hundreds of kilobytes. This really matters when you are downloading by an expensive GSM cellphone link at 9.6Kbits/sec.

I also get sent MIME messages, which some email systems cannot handle. These messages are often headed by a list of other recipients, which infringes privacy and wastes even more space.

It's often not the sender's fault. No-one has told them how to cut and paste, save an attachment in plain text, or use BCC (blind carbon copy) to head each message with only one address. Unfortunately, some are too proud to admit and learn. The knee-jerk defence is that no-one else has ever complained. Anyone at the receiving end of this kind of brush-off may like some reassurance that they are most definitely not alone and the risks are real.

ELSPA, the European Leisure Software Publishers' Association, sent out emails telling how its crime unit had busted a company at ECTS, for selling a cartridge that allows a PlayStation console to play copy discs. It wasn't surprising that this story received so little coverage. ELSPA's publicity people emailed the short press release as an enormous file that included photos, and was then

zipped down to 360KB. The text was in MIME, too. I asked ELSPA for plain ordinary ASCII text, with no pictures. Back came more zipped MIME. So I asked again for ASCII. They finally gave up and faxed me a printout.

Lucent Technologies, formerly Bell Labs, bulk-emailed a press release that contained a macro virus. It was one of the recipients, not Lucent, who spotted it and sent a warning message to all the potential victims. Lucent then sent out an apology – accompanied by another binary file.

Soon after that I got a bloated binary publicising 'The Future On Line' an Interactive Event staged by BAFTA. Even before I had the chance to ask for ASCII, another email arrived: 'IMPORTANT MESSAGE – PLEASE READ', it shouted. 'Please disregard the email sent to you earlier; we understand it contained a macro virus.' And yes, you've guessed it, the second message was also sent as a bloated binary attachment. I asked for ASCII and got nothing, until they too gave up and faxed me a printout. Then, without a flicker of apology, BAFTA's promotions people bulk-emailed a Virus Alert message, admitting that it had 'detected a virus on our system' and advising everyone on its mailing list to install anti-virus software.

This problem is not going to go away. Although new PCs may come with anti-virus software pre-loaded, there is often no advice on how to update the virus signatures.

Internet sign-up discs or the PCs themselves don't come with **A HEALTH WARNING on how easy it is for a virus to burrow inside a macro**

Most upgrades, except from newcomer Panda, cost money after a free taster.

The real irony is that the UK Government's DTI Action 2000 team spent a small fortune of our money scaring the public witless about the largely non-existent Millennium Bug. All that was really needed was one clear reminder for those large companies with old mainframes that they had to fix their systems or go out of business.

The Y2K campaign was a golden opportunity to inform and educate the mass market about the wider implications of working with PCs, the risks of virus infection and the simple rules for avoiding it. But the DTI blew it. Worst of all I doubt they know enough to understand what they blew.

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Although the mobile phone has become ubiquitous, **the PC reigns** over the web, says Brian Clegg.

Upward mobility



It had to come. The yuppie's icon is now an everyday companion. Where once the sight of anyone cradling a mobile phone caused envy and irritation, now it's a common sight that we take for granted.

This mobile explosion – over 40 per cent of the population now use mobile phones – has excited IT strategists. PCs remain an expensive option; as technology develops, mobiles could be the new gateway to the Internet. Mobiles have greater penetration and built-in (potentially lucrative) networking. You can almost hear the virtual cash registers chinking.

It would be unwise to underestimate the mobile phone's potential. You only have to look at a website such as Mobile Explorer (www.mobileexplorer.com), dedicated to the impact of mobile communications on business, to see what is possible. But the pundits are jumping on a bandwagon that is moving slower than they realise. About three years ago, some were predicting doom and gloom for Microsoft and Intel. A respected

Ananova (see www.ananova.com), an animated newsreader developed by the PA News agency. Ananova will deliver the news to your phone's screen, but even she's a retrograde step compared with the rich mix of multimedia and personal selection that the Internet offers today.

Part of the attraction of the web, unlike TV, is that it's a two-way process. It's not practical to deliver this on a phone with a QWERTY keyboard designed for human fingers, so the great hope for making the mobile the information appliance of the future is speech. It makes sense. After all, speech is what phones were designed for. And some of the components are already here. Speech recognition and synthesis have advanced remarkably in the past five years. A new web technology, Voice XML (see www.voicexml.com) is being developed to make it practical to access websites using a speech interface. Fronted, perhaps, by the lovely Ananova. And yet I remain sceptical.

What would happen to the rich experience of dealing with the Internet? Take a brief excursion I made recently. I glanced at 15 emails (deleting some obvious spam without reading them), then popped into the BBC news site (news.bbc.co.uk). There I glanced over the headlines and pictures, following up one story that interested me. Next I switched to BookBrain (www.bookbrain.co.uk), the online bookshop comparison service, and entered a book title. At a glance, I chose the best

shop on delivery and price. I then clicked through and made sure it was really the book I wanted (I had guessed the title) by checking the cover and reading part of the blurb. Finally I bought the book.

A phone equivalent would be much clumsier. It would take longer to get through the emails. The news headlines would be equally slow, especially without high-quality pictures. I couldn't take in all the information about the different bookshops without making notes or scrolling back and forth. And it would have been significantly harder to make sure I was buying the right book. I'm not saying that having it on the phone wouldn't be useful, particularly if I was stuck somewhere without access to a screen. However, just as people don't put up with 12in monochrome TVs, despite their cheapness, I'm not convinced that speech will win millions away from the visual experience.

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Mobile phones have a long way to go before they can **KNOCK PCs OFF THEIR PERCH, particularly in business**

industry analyst commented that 'their growth and profits – even their viability – will be under severe threat'. The reason? We would all abandon our PCs for network computers. We've seen similar predictions for TV set-top boxes. I'm not holding my breath in the face of these threats, or the challenge from the mobile phone.

The fact is that mobile phones have a long way to go before they can knock PCs off their perch, particularly in business. While many private individuals and small companies consider a mobile phone part of normal life, large companies still consider them tainted with a hedonistic air of unnecessary expense. They're not a typical office asset – they are too personal and uncontrolled. More importantly, though, there are questions to be asked about the functionality that can be provided on a mobile handset. Until we can project holographic images onto empty space, a mobile's tiny screen will be severely limiting. Perhaps the best hope is

David Fearon worries we may not be able to **see the wood for the trees**, technologically speaking.

WAP's-a-daisy



It's encouraging to know that, in a world festooned with acronyms, even the people promoting them don't know what they mean half the time. The acronym in question is GPRS, a great technology with a boring name. After a recent

press conference at the launch of BT Cellnet's WAP-based mobile Internet Phone service, I was handed a folder with four separate releases containing three different definitions of the term. But although the company can't decide if the P in GPRS stands for Pack, Package or Packet, GPRS is one of the most interesting developments connected with buzzword of the moment and probably the silliest acronym of the last couple of years, WAP.

Now WAP, contrary to popular belief, isn't simply a pared-down version of HTML. Cut through the acronym and look at what those letters stand for – wireless application protocol – and you can see it's a whole lot more. It does include an HTML analog in the

needing to dial up – the connection is effectively permanent. This means that when you're browsing WML pages you needn't clock-watch: you'll be paying for the data you transfer, not a per-minute charge for the connection itself.

A further advantage is the fact that you'll get data transfer rates to equal or better ISDN, depending on the quality of your signal, as opposed to GSM's maximum 9.6Kbits/sec. This paves the way for daft videophones and all sorts of stuff that everyone knows we're supposed to have, now that we've reached Space Year 2000. And the good news is that BT Cellnet confidently announced that GPRS will be available for business use from the middle of the year, and for consumers some time in the autumn.

All ostensibly fairly cool stuff, but the press conference did have its dark side. The first was the video playing when we entered the conference room: a wonderfully tacky little vision of the future, including a day in the life of a businessman with a black box seemingly glued to his ear, into which he was talking constantly. And I mean constantly. Booking tickets, asking for the latest prices on his stocks and shares, scheduling meetings and the like. All apparently done by his wireless box of tricks with voice recognition, and without once talking to a real person or, in fact, looking up from the floor while scuttling around airports and hotels.

But the scariest part, back in the real world, was a couple of BT Cellnet employees. At least I assume they were employees, but it was hard to tell. Both were gripping HP Jornadas, with wireless LAN PC cards sticking out of the sides. I glanced across to them a few times, and not once did I see either of them look up from the machines or release the grip on the styluses they were using to stab at the screens every few seconds. This, you must remember, was happening in the middle of a room full of actual people who were talking to each other without – I can hardly bring myself to say it – any technological assistance whatsoever. Perhaps we were just too fleshy for them.

Sometimes you need to see something like that to remind you that technology is supposed to be a means, not an end. Being permanently connected is great, but if it means you're permanently somewhere else, it's time to think about leaving the kit at home once in a while.

When browsing WML pages YOU NEEDN'T CLOCK-WATCH: you'll be paying for the data you transfer, not a per-minute charge

form of WML (wireless markup language), but it also includes a whole plethora of other acronyms beginning with W, including WMLScript, which offers the ability for WAP devices to run simple server-based applications. Check out www.wapforum.org for all of the gory technical details.

Currently, BT Cellnet's Internet Phone service, based on Nokia's 7110 and Motorola's P Series WAP-enabled phones, has to run over GSM, which is circuit-switched. The phone dials up a standard connection to get Internet access, and you're effectively leasing a whole channel of the network for your private use for the duration of the connection. But GPRS, as its name suggests (when you've got it right and arrived at General Packet Radio Services) is based on IP and is thus packet-switched. So you'll be able to open a virtual socket to a server and your phone can simply chuck packets out onto the network and receive them as required without

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