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REAL BUSINESS GUIDE: USEFUL TELECOMS

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Broadband, wireless, cost savings through communications technology. We bet you've heard a lot of noise about these. Here's a few ideas about making them a reality.

REAL BUSINESS GUIDE

BROADBAND

After a shaky start, broadband internet services are arriving. According to Ofcom's latest survey of smaller company internet access, only nine per cent of UK smaller companies have the two most common broadband technologies – digital subscriber line (DSL) and cable. Many, however, do use expensive ISDN and leased lines for the internet.

There have been problems with the technology, too. ADSL has distance limitations in terms of line length to the exchange; wireless and satellite solutions can require expensive kit; cable has limited distribution. Some "always on" connections have "crashed" in parts of the network – sometimes leaving users with no service for several hours during the business day. That means going back to a much slower dial-up connection – and sod's law dictates that it's the time when you want that big file download.

But, heck, this is new technology. Most businesses have been pretty pleased with broadband. For small businesses that need to send and receive files and browse the web – say, for research purposes – the entry-level broadband options should increase productivity and cut bills, especially if you've been using ISDN or ordinary dial-up connections (where, unless you have an unmetered package, you have to pay for the time the line is connected).

Event management firm Silver Leaf Productions installed Easynet's ADSL service. The company had been using dial-up connections to get onto the internet but, says founder Renae Akroyd-Stuart, "for our businesses to grow we needed to have real-time, online capabilities without the inhibitions of long dial-up waits, delaying our response to clients."

Easynet is one of several internet service providers (ISPs) to locate its own DSL equipment at a BT exchange. But the problem facing many businesses in the sticks is that their local exchanges haven't yet been included in the ADSL roll-out (and they are also outside the range of Telewest and NTL, the two cable broadband operators).

Satellite

Satellite and wireless broadband operators are helping to plug the gaps. Satellite has the potential to cover the widest "footprint." Four operators are active in the UK.

Wiltshire-based marketing firm, Outside the Square, opted for a two-way satellite system from Bridge Broadband. This allows a maximum download speed of 2Mbits a second, but

the transmission speed back-up is just 128kbits a second. The company was keen to cut out high ISDN call costs for file downloads and web browsing, but is keeping its ISDN line as a back-up for sending files. The cost of the satellite service ranges from £169 to £799 a month, depending on download speed.

Wireless broadband

Wireless broadband – where transmissions are made by ground stations – is appearing. Tele2 was an early player. It offers businesses a 99.9 per cent uptime guarantee.

The fast-growing construction firm, Benson Group, also chose ISDN as a back-up. It employs 250 employees across seven sites. It uses leased lines to connect some of the firm's larger sites, but opted for a business ADSL package from supplier Via Net.Works to link into its London office. "Our leased line annual fees are £3,000 to £4,000, depending on distance. And that's just for a 64k kilostream line," says IT manager Daniel Piggott. "For £2,500 a year we can reckon on a minimum 100k for the ADSL link with the chance of much higher bandwidth." The capacity of ADSL lines is shared – Via offers a 20-to-one contention ratio on a line that could potentially go as fast at 2Mbits a second. In contrast, a 2Mbits-a-second leased line connecting two sites many miles apart would be prohibitively expensive for most smaller companies.

Like many growing businesses, Benson wants to centralise operations, such as e-mail and financial systems. This mixed leased line/ADSL network offers a way for employees to be permanently online to systems in one location – and at reasonable cost. At peak times – say, first thing in the morning when everyone checks their e-mail – bandwidth gets gobbled up quickly. ADSL, says Piggott, is ideal for getting a new office up and running quickly – vital in construction, where you often need to set up temporary sites.

Benson's network faces pretty standard smaller-company demands – keeping accounts up to date, sharing marketing information and collecting e-mail. A broadband network can also carry voice traffic, but this would mean upgrading the switchboard technology in all sites. So far just one has such capability.

Once broadband is more widely in use, voice, video-conferencing and real-time supply chain systems will become more common. Remotely hosted applications and services are also on the up. Cable firm Telewest offers a hosted Microsoft Exchange service; indeed any application can potentially be outsourced and accessed over a broadband link. You can store databases on remote servers. But how resilient are the broadband technologies? Benson endured a six-hour "outage" one day last year (there was a fault on the main network). The incident was enough to convince him to maintain ISDN back-up.

SDSL is an alternative in some towns (the initial "s" stands for "symmetric"). It allows traffic to flow at equal speeds upstream and downstream. Advantages? It makes it easier to host a service where suppliers and customers can participate in real-time collaborative applications, or run video-conferences.

All businesses should get on the bandwagon, says Andy Williams, campaign manager of pressure group Broadband4Britain. All of the smaller companies that Williams speaks to are using e-mail and the web – with most using the web for research – and a large majority are already receiving important customer communications by e-mail. "With broadband we're not talking yet about anything particularly exciting – just accessing the internet at normal working speeds." But users, he says, will quickly take to using richer materials: "Take the Sage accounting system, which many businesses use. The company is offering online training and system maintenance, which works a lot better in a broadband environment. There will be a gradual clustering of benefits like these."

Broadband4Britain – which claims to represent 300,000 individuals – is putting pressure on BT to enable more DSL exchanges around the country. It says that 50 users make it viable, not the 200 that BT likes to quote. Williams is collecting pledges he can take to service providers. Coverage for many firms is crucial, he says. "Take an estate agent I know with a dozen branches. He wants to make images from a central server available to all offices. They can't do it yet as ADSL is available only at a handful of branches."

MOBILE WORK

Businesspeople would rather have their trusty mobile handset with them than a change of underwear, said a recent Vodafone survey. Another found that people would rather lose their wallet than their phone.

Mobile telephony has become as "business critical" as e-mail. One of the present trends is for data and messaging applications. The new generation of mobile networks, for which the operators paid such huge sums to own, are mooted to generate all manner of new applications to support business life on the move.

Hands up all of you that have a hotch-potch of mobile phone contracts in your company. Well, you could save money by striking a company-wide deal with a single service provider

to enforce some control. But before you sign, investigate the call patterns made by your staff and make sure you get an appropriate deal. You could find, for example, a package that allows free minutes to be shared across a group of mobiles, or one that allows minutes to be carried over into the next billing period.

GroupWorker from O2 lets you use your mobiles as office extensions. You can create a dialling plan for mobiles and allow them to be dialled from other mobiles as if they were extensions. Preferential rates are given for calls from the mobile to the office, and mobile to mobile, within the plan. But it stops short at allowing people in the office or externally to dial through to mobiles. For that you need a direct link to O2's network – only worth it if you're spending more than £45,000 on mobile calls a year.

Data and messaging are creating a lot of excitement, but don't be fooled by the hype. Operators are a long way from making big sums from advanced mobile applications. Ring tones, logos and SMS messages are the main revenue streams at the moment.

And certain types of application simply don't need high-capacity communications. A basic field service despatch system can work quite happily with one of the SMS messaging systems already on the market. The integration work needed to link into operational systems is fairly complex right now but that's starting to change as tools that can make in-house data available to field workers become more affordable.

Computing goods distributor Westcoast gives its field salesforce PocketPC personal digital assistants (PDAs) that tap into the stock list held on a central system. Salespeople used to take a stock list with them on the road, says Richard Jones, Westcoast's IT director. "But this information changes so frequently throughout the day that it can be out of date by the time they get in front of the customer, resulting in our sales team making phone calls from the field to HQ. That's a lot of calls when you're shipping 400 orders a day."

On the move

But if salespeople or field engineers need to download high-quality graphics or complete manuals on the road, rather than just an appointment or part number, then the higher data speeds of the new networks will come into play. Orange's enhanced data service, High Speed Data, delivers higher data speeds over its existing cellular network. Daily Mirror photographer John Shenton uses it to send digital snaps back to the picture desk. Peter Phillips, MD of presentation products firm Phillips, receives e-mail and fax in his car – and offers three such vehicles to clients, complete with driver.

The next step-up in mobile data is GPRS, now coming on-stream from all four of Britain's cellular operators. It's the equivalent of low-end broadband for mobiles, except that the operators are charging rather more for the amount of data sent across their networks.

There's a new standard, multimedia messaging service (MMS) on the way. It's like SMS but able to transmit packages of pictures, text and sound, although you won't see much even on the new colour handsets. MMS, and the ability to connect to the internet at faster speeds, is more likely to be of value to those using PDAs, laptop computers, or smart new devices such as the Blackberry, an e-mail tool available to businesses from both O2 and Vodafone.

Okay, so you've been able to access e-mail on the move for a while using a phone and laptop/PDA combination – but it hasn't been an easy process to set up. E-mail Made Easy from Orange configures your phone and PDA to handle e-mail in just 30 minutes, or so they say.

Yes, "killer apps" are on the way, but it's going to be a while before they generate substantial revenues.

COST SAVINGS

There's so many service offerings and tariffs around that you could be forgiven for taking one look and running as fast as you can in the opposite direction. But it is worth persevering. You could be better off just by switching your supplier.

You could try to find savings by changing from the main incumbent supplier – BT – to another carrier, such as Cable & Wireless. A small company looking to make immediate savings can opt for the simple measure of installing a small Cable & Wireless box between phone and outgoing BT line. Calls are routed via the Cable & Wireless network and cost less than standard BT tariffs. "Most companies will achieve ten to 20 per cent savings compared to BT basic rates," claims Chris Wilson, director of independent telecoms supplier Alternative Networks.

But price isn't the only issue. Service is also important. And changing from BT to, say Colt or WorldCom, won't necessarily provide better customer service. Alternative Networks profiles a company's telephony needs, puts it on the most appropriate network, and acts as a single point of contact for all service issues. It also offers some reassurance. Wilson: "If we put you on WorldCom, we can also use Colt or C&W as a back-up if WorldCom has a service interruption. Staff just press eight instead of nine to switch between networks."

But be careful not to let anything slip through the net. It's easy to forget about various fax lines, directors' telephones, modem lines and so on when making a switch. "Typically, we reckon ten per cent of a company's calls are leaking outside their main system," says Wilson.

Sporting Index, a client of Alternative Networks, uses a combination of freephone numbers and call analysis to target its resources to service the punters. While Telewest offers smaller businesses a hosted "centrex" service that carries out the features of expensive switchboard equipment at exchange level, it also has features such as direct dial in (DDI), ring back, voicemail and call distribution.

Another hosted service that's been making its mark is unified messaging. Call Sciences' Personal Assistant system gives a single phone number that forwards calls to wherever you are and takes messages if you're unavailable. You can also access e-mails from a mobile phone and faxes can be sent to an e-mail inbox.

Many smaller companies with more than one office already network their data traffic. The logical next step is to incorporate voice calls. Voice calls can be digitised and sent over private leased lines or via the public network – if you put enough cash into your technology.

One company that has taken the plunge is Michelsons, a maker of "neckwear" for retailers such as Harrods and John Lewis. It uses a voice over IP solution between two offices in London and Kent. This makes big savings from its previous use of a £3,600 per year leased BT voice line and extra calls made over the public network. Now both voice and data traffic is routed over a leased kilostream line between the two offices using Alcatel's OminiPCX Office equipment, supplied by Alcatel business partner, Caterham-based ACT.

"The OmniPCX Office has enabled us to achieve major cost savings by allowing multiple calls over IP between the sites," says Michelson's IT manager Rob Dobell. "And it has improved our customer service. Clients that call our direct dial numbers in London at peak times no longer receive a busy signal, but are routed over IP to the central operator at our head office."

So should you head for this new converged world? There's no doubt that there are big savings to be made on voice calls between branches, but you're talking technology upgrades. You could be equally happy with the costs savings of implementing "least cost" routing – choosing a supplier that can always give you the best rates for calls.

Contacts

[Click here to view the Real Business Guide list of contacts in pdf format](#)

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Another useful source of information:

If you're committed to wireless, you should consult Going Wireless 2 (produced with IBM). It's a fascinating guide to the real potential of wireless. Please email Sarah-Jane Bagnall on sjb1@caspiantpublishing.co.uk for further information.

WIN A WIRELESS OFFICE

If your company has 15 employees or fewer, you could win, courtesy of HP and Insight Direct Worldwide, a wireless office. Our generous friends will not only provide thousands of pounds-worth of equipment, they'll also come along and get it all working properly for you. To make your office wireless you'll need an access point (provided by Insight), which acts as a base station and connects to your server. Then through the magic of Wireless LAN and the clever technology of HP, your computer will be able to talk to the "access point" and off you go. This will work over a range of up to 30-40 metres internally meaning that you can work from the kitchen, the boardroom or even the bathroom – so there's no excuse for

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- 1 WL410 WLAN Access Point
- 5 H3760 iPAQ Pocket PCs
- 5 PCMCIA Expansion Jackets
- 5 Evo Notebook N160 PIII
- 10 WL110 WLAN PC Cards
- 10 EVO D500
- 10 WL210 PCI Adapters
- 10 Monitors

(Technical specifications may vary depending on building structure and location of the winner.)

How to enter

In order to win this prize for your business please tell us in no more than 100 words why your company deserves HP's wireless technology.

Send your entries in to Jenny Dickinson by e-mail at editors@realbusiness.co.uk by post to Real Business, Millbank Tower, Millbank, London. SW1P 4QP.

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HP's Home and Small Office Wireless LAN solution provides 11Mbps wireless networking for home and small business users. The HP solution enables users to easily and inexpensively set up a high-speed data network that allows them to share resources like files, scanners and printers, without wires. It also enables multiple users to share the same internet connection and to connect anywhere in a home or small office.

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