Talking shop

THE TELECOMMUNICATIONS INDUSTRY HAS BECOME BIG BUSINESS. JOHN LEYDEN GUIDES YOU THROUGH THE MYRIAD ALTERNATIVES OF CARRIERS AND TECHNOLOGIES IN THIS CRUCIAL COMMERCIAL AREA.

It's good to talk – but not to pay through the nose for the telecommunications services that, these days, play a central role in the running of almost every small business. What once was a formality is now a complex commercial decision.

Most operators charge different rates at different parts of the day for local, national and international services. The picture is further complicated by the plethora of discount schemes and rental packages available, not to speak of the burgeoning array of alternative carriers.

The telecommunications market is mutating largely because the biggest area of growth is in data communications, driven by the widespread adoption of the internet as a business medium. Potential competitors to dominant telcos such as BT include wireless network operators, Internet Service Providers (ISPs) and even satellite operators. Bill Gates and US cellular magnate Craig McCaw have personally invested in Teledesic, a worldwide satellite network intended to deliver bandwidth to anyone prepared to pay for it.

Already, alternative operators, such as Level 3 and Primus Telecoms, with lower overheads – and cutting edge technology – have been able to cut margins and offer a better deal to enterprises. The cable operators, such as Cable & Wireless (Communications) and NTL are also fortunate in that the relatively few exchanges they run are new.

Unfortunately, for the small business sector, so far the sweetest deals have gone to those at the top end of the enterprise food chain. For example, the Major Energy Users Council, which is made up of 180 UK companies including Ford and British Aerospace, awarded a £150m preferred supplier contract to the relatively unknown carrier, Primus Telecoms. Primus, which was selected for the three-year contract ahead of nine rival bidders, will be recommended to members of the council for a cost-effective telecoms service.

Illustration by Simon Downs

For small businesses today, the choice of telecommunications provider boils down to a choice between BT, a cable operator such as Cable & Wireless (Communications) and the emerging range of alternative carriers whose services are often restricted to a specific geographical area.

An important point to bear in mind is that while one telco may be good for some businesses, it will not be the right choice for everyone. A crucial factor here is deciding your specific requirements for internet connectivity and freephone numbers, as well as voice communications. Quality of service is vital so it's also important to consider a service provider's track record on fault-handling — particularly related to billing, a frequent source of disputes.

When choosing a service provider, small businesses need to be mindful of the pitfalls that may bedevil smaller players. Ionica, which was launched in 1993 with the aim of providing local loop wireless telephony services, ended up in the hands of administrators. Its problems centred on an inability to find as many customers as it needed to be viable. It also ran into difficulties with its network capacity in its two target regions, the East of England and the Midlands. By the time it had a software solution, its technology was already dated.

For business people often too hard pressed for time to wade through rate cards of service providers, one very useful source of information is an online tariff comparison service (Toll) that can be accessed through the web site of the Telecommunications Managers Association (TMA). Toll includes national and international PSTN business rates, as well as international and national ISDN tariffs. Discount schemes are also covered. The service, which acts as a guide to rate card prices of major suppliers, cuts out the need for small businesses to do time-consuming research and comparisons themselves.

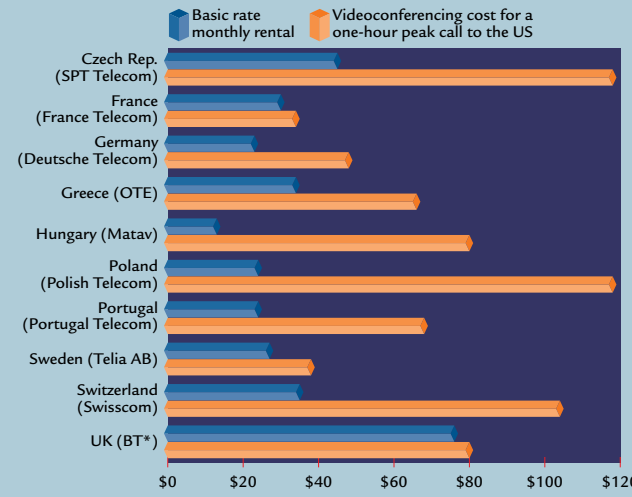
For heavier telephone users, technology provides a way of saving money by choosing between the carriers that offer the cheapest route — a process called least-cost routing. Finding the least-cost route requires not only a set of rules relating dialled numbers to possible routes, but also that the rules be updated frequently. There are companies that will rent you devices to implement least-cost routing, or, if you have lots of outgoing lines, perhaps even reprogram your PBX. The set of rules contained in the box can be updated remotely from a central control centre by placing a modem call to it overnight. The catch is, users have to sign up for connection to all the carriers whose service they might use.

The way around this is carrier pre-selection (CPS). CPS allows customers to select in advance which phone company they want to use to carry certain types of calls, without having to dial any prefix codes or change their phone lines.

BT has been criticised for using Y2K as an excuse to delay providing extra choice through CPS to its users. Through Oftel, BT has requested a deferment from the European Commission of its 1 January 2000 deadline for the introduction of CPS. BT said it needs to concentrate on Y2K and national number changes.

But an SME must also consider quality of service and support — a vital differentiation for small businesses that analysts say is frequently lacking. 'SMEs don't have a telecoms specialist, and telecommunication carriers are not very well equipped to provide hand-holding,' says Peter Hall, senior consultant at telecoms analyst, Ovum. 'SMEs are just treated as in-bound business and they would be well advised to go to a distributor who could provide pre-sales support.'

Small businesses often have inadequate knowledge of advanced telecoms services and can be left in a quandary when things go wrong. 'It's so easy to feel out of your depth when you don't understand the technology,' says



ADVICE FOR SMALL BUSINESS

1 **Consider** your business requirement for voice telephony, call forwarding, data communications and links to the internet.

2 **Don't be afraid** to consider using more innovative services, such as freephone numbers.

3 **Check** what telecommunications service options are available in your area.

4 **Seek advice** from groups likes local Training and Enterprise Councils and the Government-backed Business Links.

5 **Consider** buying a package, rather than trying to put all the components of a telecommunications service together yourself.

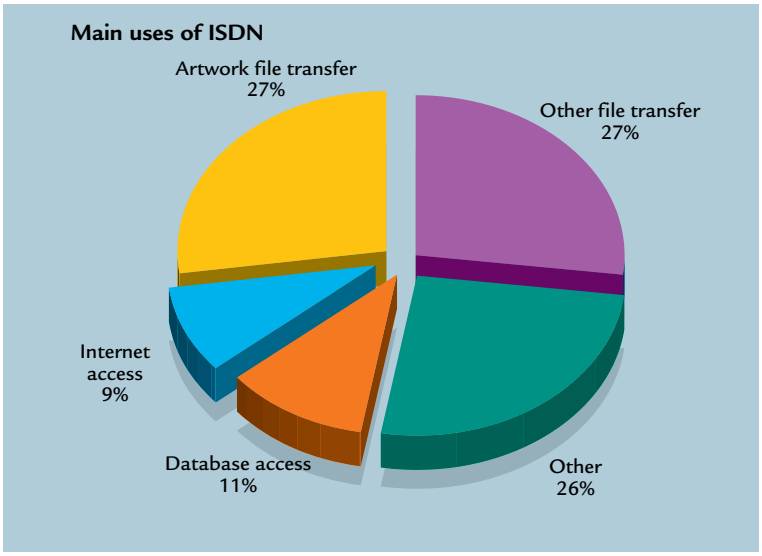
6 **Read the small print** of any contract.

7 **Quality of Service** is vital. Look into how reliable and responsive your service provider is. Billing is key.

8 **Be prepared** to change if a better option exists for your business.

9 **Consider** using least-cost routing to help you minimise your phone bills.

10 **Keep an eye to the future.** New technologies, like internet telephony and third-generation mobile phones, could be a boon for small business.



Anna Pedroza, project manager of Wired Sussex, which aims to help new technology businesses in the Brighton area. 'Until recently we had considerable problems with our exchange which meant clients were mis-directed, received the engaged tone when we weren't even on the phone, and re-directed calls to other companies using the same LAN [Local Area Network]. The main issue for us, and the other companies sharing the LAN, was to track down who was responsible when we had two contractors involved [Siemens and BT].'

According to Ovum's Hall, the degree of understanding of telecommunications technology in the small business sector varies enormously. Buying individual components and trying to piece them together can trip up the unwary. SMEs would be better advised to buy packages to meet typical needs such as remote access and ISDN.

ISDN connection and rental charges for business are up to SIX TIMES HIGHER in the UK than in other European nations

Jaguar Communications, for example, acts as a third party for BT's ISDN services. Jaguar provided a 'virtual' network for Yorkshire-based small business advice service, Batley TeCH.

The TeCH initiative, centred around Batley, West Yorkshire, is designed not only to raise IT awareness among SMEs, but also to offer practical help, with grants of up to 50 percent for equipment, consultancy and training costs for eligible companies in the area.

Diane Ball, chief executive of Technology Challenge Business Solutions (TeCH), says: 'The key for small businesses is to focus on appropriate information and communication technology — technology that will benefit the company and not create new difficulties or simply offer gimmicks.' TeCH itself needed a flexible voice and data infrastructure and chose Jaguar to design, project-manage and support the network. 'We were a new organisation, in effect finding our technological feet, rather as we now see our clients doing on a smaller scale,' says Diane Ball.

What TeCH needed was a communications system that would enable its peripatetic advisors to keep in touch, via mobile phones and laptop computers, and access LAN-based information sources. Jaguar proposed two core BT 256Kb/sec leased circuits, one between the operational centre at Batley and the Bradford Regional Support Unit (RSU), the other between the Batley and Castleford RSUs — all 'green field' sites.

Batley is the hub of the system: all phone, fax and data calls pass through its servers. Further 256Kb/sec lines run to the Business Links computer sites at Brighouse and Bradford, while Wakefield Business Links joins via an existing ISDN circuit.

While this was an effective communications solution in the case of TeCH, BT's ISDN pricing and delivery strategy has been heavily criticised by users and industry watchers. Research by University College, London, shows that only 19 percent of SMEs use ISDN today. More than four in five would reconsider ISDN if price and ease of use were improved.

'Telecoms operators haven't found a way to set up access and meet demand while making a profit, because of low margins,' says Graham Skelton, chief operating officer of Virtual Access, which sells self-configuring ISDN terminal access devices into the SME sector. Skelton believes the cost, complexity and time required to set up installation have held back adoption of network services in SMEs.

London-based consultancy, Phillips Tarifca, has released a report which said that basic ISDN connection and rental charges for business are up to six times higher in the UK than in other European nations. BT's monthly rentals for ISDN are almost three times those of Germany's Deutsche Telekom.

'People aren't moving to the technology because of the huge connection charges,' says Margrit Sessions, Phillips Tarifica's managing director. According to Sessions, the introduction of BT's Home Highway and Business Highway, which reduced some ISDN prices, has not changed matters substantially.

Highway enables BT customers to juggle phones, faxes and internet links on a single telephone line rather that installing separate lines and high-speed internet connections. Customers will have a choice of combining analogue and

Telecommunications carriers

	Amount of fibre optic cable (km)	No. of points of presence	Lowest peak rate call charge (pence per minute)
BT	3,700,000	480	4.6
Cable & Wireless	8,500	N/A	3.7
NTL	8,000	40	5.7
Energis	6,000	200	4.4
Racal	6,000	100	3.8
Redstone	2,500	39	3.0

Source: Redstone Communications

digital connections via two digital data channels (each with a speed of 64kb/sec), one analogue voice channel and one digital voice channel, or two analogue voice channels. The cost of converting an existing analogue line to the Highway service is £99 (or £49 under a special offer until 30th June), with a quarterly charge of £133.75 including free calls worth £57.50. Another plan costs £275 per quarter with a call allowance of £198.75.

BT's plans to use the ISDN D-Channel to carry low-bandwidth, always-on data services has also been the focus of criticism. Users have always had a 'spare' 9.6Kb/sec capacity not used for signalling on the D-Channel of every ISDN connection, but have never been able to use it. In Europe, it's been available for some time. But BT has only recently introduced a tariff for a service using the D-Channel which allows a throughput of up to just 2.4Kb/sec in bursts of two seconds and continuous transfer at just 500bytes/sec.

The introduction of these Highway services has been criticised as too little too late, because its primary-rate offerings are already being overshadowed by talk of 2Mb/sec broadband access services based on Asymmetric Digital Subscriber Line (ADSL) technology. ADSL provides high-speed access to the home or small business via standard copper telephone wires. It's attractive for the user because the growth in data traffic is driving demand for higher network bandwidth.

Britain lags behind the US and parts of Europe in this area. BT has a trial of ADSL in west and north London, but few believe the service will be rolled out nationally because it threatens BT's lucrative ISDN and leased line market. 'It would be cynical to suggest we are dragging our heels over any technology,' says Simon Brooks, BT's Interactive Services Network marketing manager. 'We will only introduce new network services when they are technically and commercially viable.'

Broadband services delivered using ADSL over copper telephone wires are only a commercial reality if you live in Humberside. Kingston Communications is offering four tariffs for internet access at rates of between 64Kb/sec-16Kb/sec (downstream/upstream) and 256-128Kb/sec under its Ultra brand. Prices range from £2,395 a year. Kingston says its services offer twice the speed of an ISDN or leased line connection at roughly half the cost.

The key to why ADSL is not more widely available is, in the view of its many critics, BT's control over the local loop. But now Oftel is undertaking a consultation which could force BT to relinquish control of the local copper loop from exchanges for the first time.

In Thames Valley, a high-speed service has been available that bypasses the local loop, using wireless technology. By 2003, Tele2 plans to build a national broadband wireless network, available to 60 percent of the population, that will offer direct access to the internet at speeds two to three times faster than ISDN.

'The service is always on, and we charge on the basis of the quantity of data sent, like mobile phone talk plans,' says Peter Scrope, managing director of Tele2. 'We start where ISDN finishes.'

While basic rate ISDN operates at a maximum 128Kb/sec, Tele2 offers a three-tier service, with tariffs at speeds of 128Kb/sec, 256Kb/sec and 384Kb/sec. Tele2 claims to be 80 percent cheaper than ISDN and BT's Highway, with prices starting at £65 a month for a 128Kb/sec connection, in a package that includes 5Mb of data per day.

However, these networks will be data only and don't attempt to integrate switched voice and data traffic in the same way as ISDN. And the data speeds are the same as those that will be provided by third-generation mobile services, a standard for which is currently being thrashed out.

Another interesting technology is using the internet to make voice calls, which would mean small businesses can make international calls for just the price of a local call to their ISPs. The technology to provide internet telephony exists today, but the quality and reliability needed for such devices to pass muster in a commercial environment isn't here — yet.

These are technologies of the future. But even for now, small businesses do have some options to get a good deal on their telecommunications, albeit that these are limited or restricted to those in a particular area. These options are worth exploring though, because those brave enough to ring the changes will reap the rewards. ❐

PCW CONTACTS

Service providers
www.bt.com
www.cwc.com
www.kingston-comms.com
www.tele2.co.uk
Telecommunications user groups
www.tma.org.uk
www.tua.org.uk
Integrators
www.jaguarcomms.co.uk
End-users' support groups
www.wiredsussex.com
Telecommunications analysts
wwwovum.co.uk
www.analysy.co.uk