SMALL BUSINESS CAN WIN BIG

Anyone with even half an interest in technology or just the size of their telephone bill will by now have heard of VoIP. Colin Duffy, Director of ITSPA, reports

It's the most important development in the industry for almost 100 years and is what the economists call a 'disruptive' technology.

It has the power to change not only how telephone calls are made and how much they cost but also who provides them and what they do. It makes new products and services possible, and makes those that were un-affordable to all but the very biggest companies, easily accessible to the masses.

Not long ago only governments could sell you a telephone call. Now for the first time in the history of telecommunications, people that don't own the wires can provide telephony services over them; and that is going to change everything.

VoIP is an ugly acronym standing for Voice over Internet Protocol and is simply a way of making calls over the internet instead of the traditional circuit switched network.

What would astonish many is how the internet network deals with a telephone call... because it is utterly preposterous. Unlike a circuit switched network where a call takes up a whole circuit end to end (think of two tin cans connected by string), a VoIP call is converted to digital information, broken up into tiny packets, sent any number of ways across a spider's web of networks, all controlled by routers. Packets arrive higgledy-piggledy at their destination and have to be put back in their correct order, and all in a short enough time to make a sensible conversation. (Think of a Lego house broken into its individual bricks, numbered and sent in individual envelopes to an address overseas. The packets go independently by road, rail, sea and air to be re-assembled at their destination.)

It doesn't take much to see that tying up a whole circuit for the duration of a single phone call is less efficient than allowing many call packets from many calls to find their own way down many different circuits.

This then is the main reason why, over the next five years or so, BT will replace all their switches with routers and by doing so will have merged the telephone network with the internet network and have built the 21st Century Network - or as they say, 21CN.

Sometime soon everyone's calls will be VoIP somewhere in its travels whether we like it or not; in fact many of our calls are already, we just don't know it.
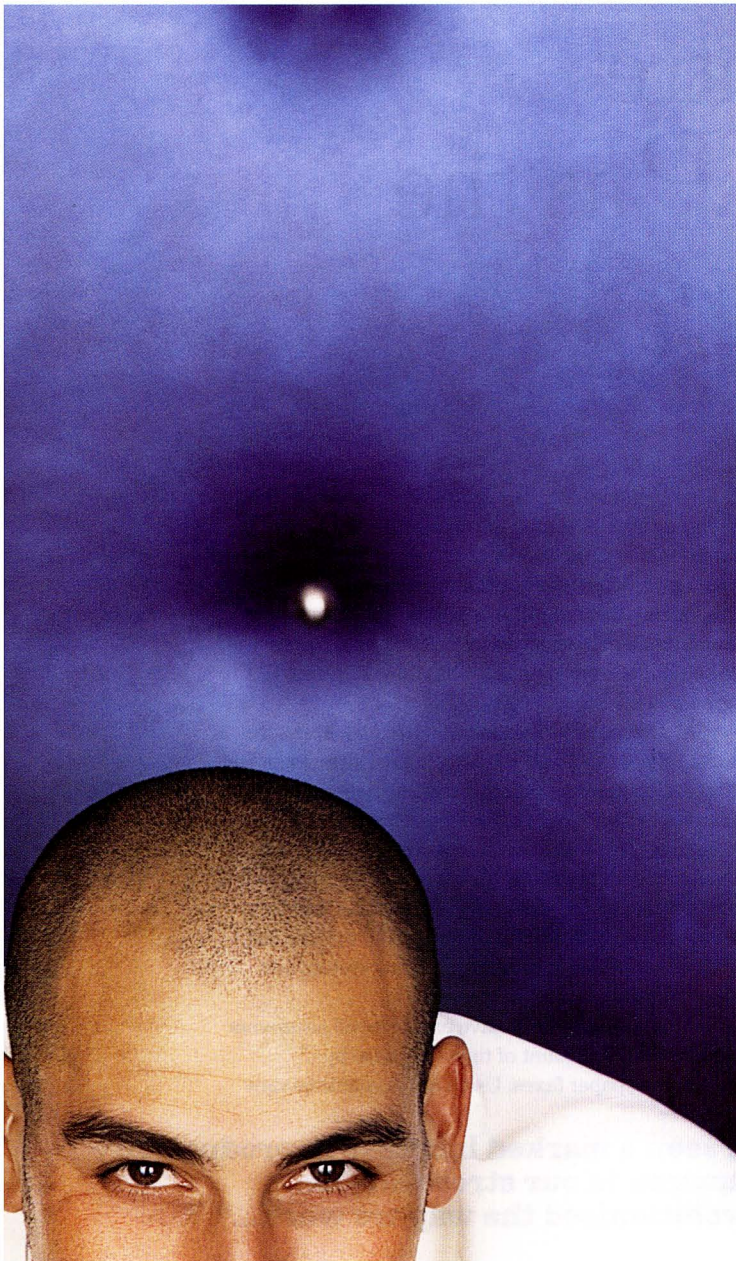
That's great for network operators and big businesses running big networks because it lowers their costs and makes them much more efficient – only one network to manage and only one technology to learn – but what's in it for the rest of us?

Well not much unless we use VoIP at our end of the network, but then it gets really interesting because once we're all VoIPed up too, we can do all sorts of clever things. Before we get into that I want to quash a myth.

People tend to think that VoIP is about cheap calls. It's not; VoIP is about free calls.

In truth, as far as cheap calls

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go, we've never had it so good anyway - an hour long, national 'peak rate' call has dropped in price from almost £5 to almost 5p since 1984. Now, most people, even BT, are predicting that the call will be free very soon.

VoIP calls are free because you've already paid for them in your £19.99 per month broadband subscription (or your VPN if you're a biggish business user). When you make a call over the internet your voice is converted to data and sent like any other piece of data down your internet connection; just like web surfing and email; you don't pay again to use it. So, if you call another VoIP user anywhere in the world, it's a free call - you only pay if you call an old fashioned telephone network which we VoIP providers rather arrogantly, but accurately, call legacy networks.

But the real value, particularly to businesses, is in the new services VoIP makes possible. Because there are now a number of young Internet Telephone Service Providers (ITSPs) which do not have to protect the revenue stream and blue chip lifestyles of an incumbent network operator, there are real innovations coming to the market and it seems that small businesses for once will benefit most.

'Enterprise' scale businesses have had, at some expense, sophisticated telephony services like PBX extensions, DDI, voicemail, call conferencing and so on for many years but now VoIP allows even micro businesses access to those sorts of services; and for a tiny, almost insignificant cost.

This is because it's not just the technology that is different to the new VoIP-based telcoms; the business model and philosophy is different too. The entrepreneurial new ITSPs

need not have city centre flagship offices, sales forces, installation teams and middlemen re-sellers (or channel partners in the argot). They have very low overheads, real time web-based services and modern work practises using a network of experts scattered around the country linked with their own technologies. Think Ikea not Harrods. They provide flat pack, web-based, DIY telephony products for self-assembly.

For example, my company Voipfone, can provide extensions with all the features of a major PBX installation, for less than £1 per month. Those extensions can be in different buildings, even different continents. It's strange to think that a call coming in to one of our customer's London numbers also rings their telephones in Malaysia, the Philippines and Australia, simultaneously and that calls between them are totally free and usually of better quality than a normal landline or mobile.

Sophisticated products for small and even tiny businesses are now coming into the market. A one man company operating from a bedroom in Wigan can have a central London, 020 7 number, an Interactive Voice Response systems - 'press 1 for Sales and 2 Accounts and 3 for our Paris division' with a statistical call queuing system and simple CRM facilities all for less than a fiver per month, just as the multimillion pound multinational can.

If the internet democratised information, VoIP democratises communication.

Remember that once a phone call is reduced to data and no longer tied to the network owner, you can do almost anything with it - and who knows what will be next?

Colin Duffy is the CEO of an independent UK VoIP company which designs and builds products and services sold under the Voipfone brand. He's a BT veteran and Director of ITSPA, the Internet Telephony Services Providers' Association. Email: colin@voipfone.co.uk >> www.voipfone.co.uk