



Fact Sheet

Cheap Internet Telephony - VoIP (Voice over Internet Protocol)

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There's a lot of discussion amongst telecom providers and experienced web users about "VoIP" - but what are the benefits for businesses?

Our E-Business Advisers discuss the pros and cons:

1. How does it work?

VoIP is a technology that allows you to make telephone calls using your broadband Internet connection instead of your (analogue) phone line.

Some proprietary services only allow you to call other people on the same service; others allow you to call anyone - local, mobile and international.

While some services only work via your computer or a special VoIP phone, others allow you to use a traditional phone through an adaptor. In some systems, this might not even entail either party having a PC.

Your voice is broken up by special software into small packets of data, sent through the Internet, and reassembled at the other end - almost instantaneously, with no discernable time lag and at good quality - as good as a landline call.

There are 3 permutations -

PC to PC VoIP -

This requires that you and the person receiving your call both have PC's with the same proprietary VoIP software installed: both need broadband.

You need to both be connected to the Internet: e.g. during office hours. These types of call are normally free, irrespective of where either of you are in the world.

PC to ordinary Phone VoIP -

PC to phone VoIP requires you to have VoIP software on your computer, and to be connected to the Internet via broadband.

You then call an ordinary telephone number, irrespective of where that number is located: the recipient doesn't need broadband.

You can use this service to make very inexpensive outgoing long distance telephone calls, (as little as 1.2 pence a minute to Australia) but you can't receive calls from conventional phones.

Phone to Phone VoIP -

Phone to phone VoIP is the technology probably offering the most promise for business.

You need a special telephone adapter that plugs into your broadband Internet connection or router, (provided by the service provider you sign up with).



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You plug a phone into this adapter.

You can then use phone to phone VoIP for both incoming and outgoing calls.

The cost of both your local and long distance telephone calls is much less than it would be using a conventional land line.

For example, BT offer rates of 10p per HOUR for national calls for this kind of service - and you get 2 additional “virtual” telephone lines as part of the £10 monthly line rental deal.

BT and other telecom providers are committed to moving to this technology over the next few years: it offers them considerable cost benefits too.

Businesses are likely to see this kind of offering becoming much more prevalent too.

2. What's the advantages and disadvantages for a business?

The major advantage for all these systems is much cheaper telephony.

If you call another user on the same system, PC to PC, the call is free - irrespective of duration or distance!

For example, a client with an HQ in the UK also has offices in Nigeria and Kenya, with very high call costs between them.

He was already a broadband user in all three locations.

Switching to a PC to PC VoIP system cut telephone call costs to zero, with potential savings running to several thousand pounds per year.

The (Skype.com) software to do this was free, and downloaded from the web.

His setup costs were the purchase of several cheap headphone and microphone sets - at around £12 each....and some straightforward staff training.

You don't need to have offices as far away as Africa to use a similar setup and benefit from considerable call charge savings - small firms with more than one location, or firms with home based workers can equally benefit.

On many VoIP systems, it is also possible to integrate data into the mixture too - for example, several people in different offices could work on the same document, whilst discussing it over the phone.

However, there are some disadvantages -

- If you use PC to PC or PC to Phone VoIP, on many systems, there is no telephone number attached - ordinary phone users can't phone you.

On PC to PC VoIP, you'll have a user name listed in a directory, so other users of the same system can find you though.

- If you use PC to PC, or PC to Phone VoIP, and there is power outage, you can't use the phone.
- If you use PC to PC or PC to Phone VoIP, you often can't dial the Emergency Services on 999.

To get around the above limitations, you do still need access to a landline or mobile phone.



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3. Useful links:

There are many other possibilities for setting up an inexpensive and cost-saving VoIP Internet telephony system - useful links are:

www.voip.org.uk -
A UK Resource for Internet Telephony

www.skype.com -
The Skype web site where you can download Skype software

www.btbroadbandvoice.com -
The BT offering for home & businesses

Also - see the Fact Sheet on "Skype Internet Telephony"