



5-Point Guide To Voice over Internet Protocol (VoIP)



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WHAT IS VOIP

Call any company and the chances are they will have made the decision to route calls around the office on the same Internet Protocol (IP) network that handles their data. Call up a company or friends and relatives from home or the office and, again, the chances are the call will at some stage travel over an IP network because the technology is now sound enough to form a part of the country's every day telecommunications backbone.

So now you know you are using it, chances are you probably want to know exactly what it is. Traditional telephony is very simple. On a Public Switch Telephone Network (PSTN) two way conversations travel down a telephone line in a straight line, rather like traffic flowing up and down a motorway in opposite directions.

The advent of the Internet gave rise to a different way of carrying information down the line. Instead of sending everything in a constant stream, IP networks take segments of data, which are sent in 'packets' to their destinations. Often these packets will be sent on different routes, aligning themselves in order when they reach the destination. For data this is fine because you are not normally worried over which order the data or the information appears on the screen. With voice, of course, the words you are speaking have to arrive in the right order; hence it has not been until the last few years that the networks have been sophisticated enough to carry voice traffic without any deterioration in quality.

Once businesses and consumers start to make and receive digital calls on the same IP network their data flows in and out on – be that the company LAN or a home broadband connection – a whole new world of opportunities is opened up.

HOW DO THE NUMBERS WORK

A decade or so ago we were told that we would all have a personal number that would follow us around wherever we went. The only trouble was, the line would cost a fortune for others to call and we would be billed for rerouting calls to whichever phone line we were nearest at the time.

Well, it may be ten years or so late but this is effectively what VoIP does, only it cuts bills instead of increasing them.

Once you have an IP telephone number it follows you wherever you are. Whenever you have a broadband connection you simply plug in your phone or laptop and you are ready to take calls. Of course, in a Wi-Fi area, you do not need to wrestle with wires, simply turn the phone or laptop on and you are ready to receive calls – in public areas you will probably need to pay for the Wi-Fi access.

If there is no broadband access, the IP number can be set up to call another number, such as a mobile phone, to ensure the call is not missed.

HOW TO REDUCE YOUR CALLS

One of the first appealing qualities of the VoIP is cost savings. Although a business will need to make an upfront investment to replace or compliment legacy systems, the cost of maintaining a single network is obviously lower than maintaining two.

If a business has linked two or more offices through the IP network, calls between those locations will now be free and calls made from within the network to outside will be charged at a fraction of what the company was likely to have been previously paying for an analogue system.

An interesting aside is that having VoIP changes employee attitudes as they switch from using their mobile phone to logging on and taking calls over IP.

Instead of people always calling a colleague's mobile to reach someone out of the office, they now know they can call on their normal IP number. Those people out of the office also get in the habit of hooking up their laptop and then using their normal IP number themselves. The cost savings to a business can be dramatic.

HOW YOU PICK YOUR GEOGRAPHIC LOCATION

VoIP starts to really make sense to people when they realise that they can have several numbers but more importantly these numbers need not be specific to where they are based.

A company based in Birmingham that is eager to appear local to customers in Newcastle, for example, can easily set up a VoIP number with a 0191 code to run alongside their normal 0121 numbers.

It's a great way of showing people in a city or area of the country where you don't have an office that you still offer a service there. It's a great way of appearing more local than you are and it obviously means clients can call you at local rates.

This geographic freedom can be extended beyond the UK. Although the market for telephone numbers is not completely free outside the UK, some operators can now offer local area code VoIP numbers for the United States and several European countries.

This is not only a useful feature for businesses that want to give clients and travelling staff a cheap means of calling and being called, it is welcomed by consumers wanting to cut the cost of relatives abroad calling them. The beauty of VoIP is your numbers aren't limited to where you physically are.

INTEGRATED VOICE AND DATA

If you use Microsoft's Instant Messenger, or a similar application, you will be used to being able to set your position or 'status' to presets such as 'away' or 'busy'. Well, with VoIP, you can do much the same thing.

Once you start talking over VoIP you can find out instantly if people are available, there's far less picking up the phone and wondering if they're going to be available.

It really comes in to its own if you want to collaborate on something with someone because you can see if they're available, make the call, perhaps a video conferencing call, and put the documents on screen so you can discuss them together.

Other examples of the flexibility offered when voice is treated like data and travels along the same network is synching a calendar with voicemail.

If, for example, somebody receives a call when they are in a meeting and do not wish to be disturbed, the calendar can make sure a message is taken. If the calendar knows that someone is out in the field, away from a broadband connection, it can forward the call to a mobile.

Just as importantly, with VoIP there is far greater control over messages. Instead of being locked in a phone in the office, they can be accessed remotely as well as forwarded to the number owner. In fact, they can even be emailed so they can be played back via a laptop or personal organiser.

ABOUT ACTIMAX

We are a National supplier of IT and Telecoms Infrastructure. We aim to help improve our clients business processes by implementing change, which improves service levels and efficiency while reducing cost.

How we do it

Our strategy for providing solutions for our customers is split into two components. The first of these is infrastructure and we provide Mitel and Alcatel telephony solutions together with Alcatel Data Switches, WiFi Solutions and Cisco routers, to provide a complete infrastructure for our clients.

This infrastructure is then connected to the network by a variety of methods including, ISDN, SIP Trunks and Wide Area Network connections. We also provide as part of our infrastructure offering, Call Recording and Mobile Telephony.

Actimax are able to provide an end-to-end offering for any customer infrastructure requirements.

The second component of our product solution is providing elements of the solution, which we would regard as value added services. These would include Collaboration and Unified Communications, Video Conferencing and Managed Services such as Least Cost Routing, Maintenance, Fraud Detection and various hosted services to provide the customer with value added services to enable them to manage their business on an ongoing business.

Our History

Actimax have won a large number of awards for technical innovation. In 2009 we were awarded the contract for Salvation Army to deploy a voice infrastructure for their business. This followed successes in 2008 with being awarded the contract to be the supplier for the telephone system for the Wimbledon Championships and five Royal Palaces in 2006, including Hampton Court, Tower of London and Kensington Palace.

We have a large number of high profile customers including The Church of England, The Delfont Mackintosh Theatre chain, The National Union of Teachers and The Restaurant Group.

We are Mitel Premier Resellers and direct Alcatel Voice and Data Partners.

We aim to achieve excellence in the solutions we provide and also in our technical accreditations and customer support. We believe this is paramount in looking after our customers.

We have very high staff retention, with around two thirds of our staff having been with the business for more than 5 of our 12 years.