



VNUNet – Beware the Siren Cry of VoIP

By Clive Longbottom, Service Director, Quocirca Ltd

First we had the big move by consumers to the use of mobile phones only, and then we had the massive disruptor of Voice over IP. VoIP offers minimally priced (or free) calls worldwide and it's easy to set up, so only a fool will have stayed away from the use of VoIP, right?

Well, it seems that VoIP still has some way to go. Not only are there millions of consumers and businesses that still haven't heard about VoIP, but there are those who have tried it, and are now wishing they hadn't - particularly in the SMB space.

The kit tends to work. That's a given. VoIP handsets are now pretty much standardised around the Session Initiation Protocol (SIP), which means that you don't require specific handsets with specific systems, although you may find that support is difficult to obtain in a mixed environment.

But call quality isn't just dependent on the vendors' kit; there's a whole host of other issues that need to be dealt with. The main one is that VoIP traffic needs managing, and this has to be end-to-end.

Any break in this management, whether it be handset to Lan, Lan to PBX (if one is being used), on the Wan or from the Wan to the receiving handset, means that there is a capacity for call degradation.

This degradation can be caused by network latency, by packet jitter, by poor bandwidth management or by additional latency being introduced as the call passes from one network owner to another through edge-of-network devices that provide active filtering.

Then we have the need for existing firewalls to be able to understand SIP. If you have a relatively new commercial firewall this should not be a problem. But for a firewall that's two or more years old, you may find that setting up SIP to work at all is difficult, and in some cases impossible.

Then there's the actual functionality of VoIP; having fallen for the siren cry of VoIP a couple of years ago, I spent a chunk of last year looking for suitable solutions for an SMB. With a distributed team such as ours, the solution that made the most sense was an IP Centrex (a hosted VoIP service).

But then we started to find that end-to-end management was not always available, that items

such as conferencing were far short of our expectations (the average was for three callers at one time, and we wanted six), and that for a real solution, we were looking at horrendous costs because each site needed dedicated hardware to manage the quality of service.

This has been borne out through discussions we've had with others; it seems that the average life of a VoIP solution in the sort of SMB that we are talking to at the moment is around three months, and then they fall back to a POTS (plain old telephone system).

Managed VoIP systems for large organisations are definitely on the up; it makes full sense to them and the savings are big, and with Cisco alone getting closer to having shifted 10 million IP phones, the big companies are obviously using VoIP.

However, even these guys seem to suffer when they look at those working from home or who are more mobile. One of our largest customers is reporting that around 10 per cent of VoIP calls originating from home offices are so low in quality that the call needs to be re-initialised.

Does this point to the death of VoIP? Far from it. All it shows is that we need proper managed services to ensure that we get a quality call.

At the high end, companies such as Fujitsu Services are offering a fully managed IP Centrex service to large companies at a pretty much all-inclusive per-user cost, including all national calls, a big chunk of mobile calls and some international calls.

At the lower end, SMBs working from a single site can turn to companies like AlwaysOn for a fully managed service.

If you're in the market, don't just fall for the best looking kit around. Check that the vendor understands the need for QoS/MPLS management (don't worry about the acronyms, just make sure that your vendor understands them), check that the services you really need are available, and don't get rid of the existing kit until you have fully tested the new.

The last thing you want is a system that is nominally cheaper in hard terms, but is losing you customers through poor communications quality.

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