

Never mind the quality – feel the (band)width

By Rob Bamforth, Principal Analyst, Quocirca Ltd

A former university lecturer used to say, “any problem can be beaten to death with pound notes”. Many network managers looking at the impact of voice over IP on their networks might be thinking along similar lines, but is more bandwidth the answer to the performance and quality issues they are currently or soon to be suffering?

It really depends what you’re trying to measure. We all often fall into the trap of making important what we’ve measured, rather than measuring what’s important, and networks management tools measure the things that computers, routers and other network components see – packets, loss and throughput.

That’s great for many ‘bit-shunting’ applications, but not so good for those that have a critical interactive impact on the end user, especially those based around the human senses of sound and sight.

The quality of voice and video is dependent on many more things than the network connection. In particular the final arbiter is the quality when the information hits the eye and ear. We know from recent Quocirca research into collaboration that the quality of visual and audio information is a major factor in the effective use of conferencing systems.

There are many areas that impact quality, and the old IT expression of GIGO (Garbage In, Garbage Out) can be applied when choosing microphones and cameras. Likewise, at the receiving end, the qualities of screens, speakers and headsets play critical roles in making communication clearer, crisper and easier for the receiver.

However these are fixed issues that depend on balancing spend levels with fidelity - choose poor quality and you get what you pay for, choose good quality and it will consistently deliver.

But only if the network does its bit. And this is where the problem lies, and it will become increasingly apparent as more and more applications propel their bits through a myriad of

networks and connections. Especially those applications that depend on how they look, sound and feel to the user.

The problem is that those responsible for the network are often measuring the wrong things. It seems to be performing fine, within tolerances and meeting SLAs, but the users aren’t happy. The network is being measured, but not the applications that run over it.

With some applications, it’s relatively easy to measure response times – round trips for key presses, time to update a screen, time to retrieve search results – and understand their impact on users. Indeed it’s also possible to fool user perceptions of speed, for example the web browsers rendering text while waiting for the slower images to download.

Or as Apple cleverly did with its earlier windowing system, using classic animation techniques like motion lines and blurring to make it appear that windows were popping up faster than they actually were.

The problem with interactive voice and video is that while some gaps and glitches can be masked, they can quickly become irritating and a drain on concentration, individual efficiency and ultimately overall value of the communication. With more voice and video heading down the converged IP pipe, simply throwing more bandwidth at the quality issue, or trying to dodge it by saying, “well the network’s working fine”, will not be acceptable.

That would be bad enough, but many organisations are looking for digital media investments to deliver better quality than their original analogue systems.

Higher fidelity phone calls from the Pretty Awesome New Stuff (PANS) than delivered by the Plain Old Telephone System (POTS), and higher definition video instead of the decade’s old analogue TV standards. That’s the real progress the digital revolution surely promised?

More and higher fidelity network traffic will need to be measured at the application level. Ask those who use the applications, find a way to understand their expectations, and a way to measure performance and quality in the way they appreciate, rather than in the obscure technicalities of the network.

It might not be on the IT network management dashboard today, but the commercial considerations of quality of communication in a business world dependent on global reach, but increasingly environmentally penalised by global travel, will soon put it on there.

About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first hand experience of ITC delivery who continuously research and track the industry and its real usage in the markets.

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation's environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca's mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca's clients include Oracle, Microsoft, IBM, Dell, T-Mobile, Vodafone, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

Details of Quocirca's work and the services it offers can be found at
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