



Why More Bandwidth Can Be A Really BAD Thing !

In today's every evolving broadband Internet space, we are seeing the big players land grabbing for subscribers by offering higher and higher download speeds at lower and lower cost. While this obvious benefit looks like a no brainer for everyone concerned, the reality is that, in certain circumstances, higher download speeds can compromise critical applications such as VoIP.

ADSL provides up to 2mb of download capacity while the upstream speeds are typically capped at 256k. In effect, this means that a 512k ADSL link is as good as a 2mb ADSL link if it's being used specifically for VoIP as the lowest common denominator (i.e. upstream) dictates the quantity of concurrent calls which can be made.

As all ISP's are now moving to ADSL2+ (also known as ADSLMax) this problem is being accelerated due to the way these new ADSL technologies share the bandwidth at the local exchange. Simply speaking, old ADSL used to use a contention policy which basically meant that if you got an amount of bandwidth of a file transfer or a VoIP call, you would keep that bandwidth for the duration of that transfer. Once the transfer was complete, the bandwidth would then be freed up for other users on the network. This contention concept suited VoIP as once a call was initiated, more often than not, the bandwidth was available for the duration.

Unfortunately, this is not the case with ADSL2+/Max. This new technology uses a rate adaption policy which effectively means it can (and does) steal bandwidth dynamically from subscribers as and when required. We have seen upstream capacity decrease to lower than 57k in peak working hours which is simply not viable for a VoIP application. Period.

VCOMM have implemented an assessment tool in their infrastructure to test these circuits for VoIP suitability called MyVoIPSpeed. This tool can be run from a customers web browser and simulate VoIP traffic to assess latency, jitter and capacity over a period of time to ensure the customer broadband service is capable of supporting the amount of concurrent calls required. This is a free service and can be accessed via our management web site - <http://mgt.vcomm.co.uk:8877/voiptest.html>

We encourage everyone who is considering selling a VoIP solution to utilise this free service as sometimes more bandwidth can be a really BAD thing !

Appendix – dsl_contention.pdf – VCOMM findings based on BT's DSL infrastructure

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