

Network Speeds over the years

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Have you ever thought about (or even remember) when we were excited about the speed of ThickNet - the ethernet segment that preceded ThinNet (aka a sort of coax-cable that ran through/along walls and ceilings? The speed was a thrilling 2Mbit/second.

Or can you imagine even being excited by a 1200 BAUD modem?

Are networks ever fast enough? I used to think so - but today I have my doubts - that I will ever be able to install 10Gbit at home. And that is sad, because I used to be content with so much less.

Way back when... Back when I was in high school I was lucky enough to be able to work regularly, via a remote terminal, on a computer running at a nearby (150 km away) university. One of my first speed moments was when we had to wait a few days while new hard disks were installed. We all felt it was worth the wait - because the speed increase (at the terminal) was phenomenal - we must have finally been running at full-speed (110 baud). And just in case you are not really familiar with the importance of 110 BAUD - that is - 1 start-bit, 8 data-bits and 2-stop bits - aka 10 characters per sec.

How about only 18 years ago? Now, as I look at a transfer from my NAS to a USB-3 external disk - that is going to take between 3 to 4 hours (< 200 minutes if I am lucky) and think about a three hour+ file transfer when we finally had an direct connection between countries - I have to admit I have always been too patient - read - I have grown impatient. In 1997 I was happy to have between 1.5K and 2.0K bytes per second - considering it was between the UK and the Netherlands. After all - only a few days before that that had been my top speed in the office. We were now upgraded to UTP 10Mbit and could transfer 1M byte between hosts.

Back to Thin-Net aka coax cable - besides being prone to lost connections it's maximum speed was 2Mbit (or about 2K Byte per second).

And 12 years ago? I also remember - about 12 years ago - when we were re-doing the house, and pulling lots of UTP cable and having 10 Mbit at home - and thinking (100Mbit was the newest thing at the time) - who would ever need more than 10Mbit? And not so long ago - upgrading my switches from 100Mbit to 1Gbit (as I look at a 3 hour+ 90MByte/sec transfer) and thinking - OMG - if I was still at 2Mbit per second. This would be impossible.

In short, I expect network speed will always be behind what we are using - because we chew more.

We have 'grown fat' - data consumption is explosive! The heading is nothing new - we know this. But my memories help me put it all in perspective. Network speeds are not really faster today than they were before. We want to move about so much data that we need more bandwidth. If I compare today with "Way Back When" I was happy with 2Mbit (2KByte/sec) I was also writing programs (in assembly) that were between 200 and 1500 bytes - and easily transferred in a few seconds over a standard 300 BAUD modem.

"A watched pot never boils" So, while I wait for 865G Byte to transfer - I'll finish this blog, have a coffee, and then come back and re-edit the blog to make it, I hope, more presentable.