

IETF Hackathon: Measurement

Tools, Systems, and Projects

Team members:

Al Morton, Len Ciavattone (remote)

Nov. 16-17, 2019

Singapore

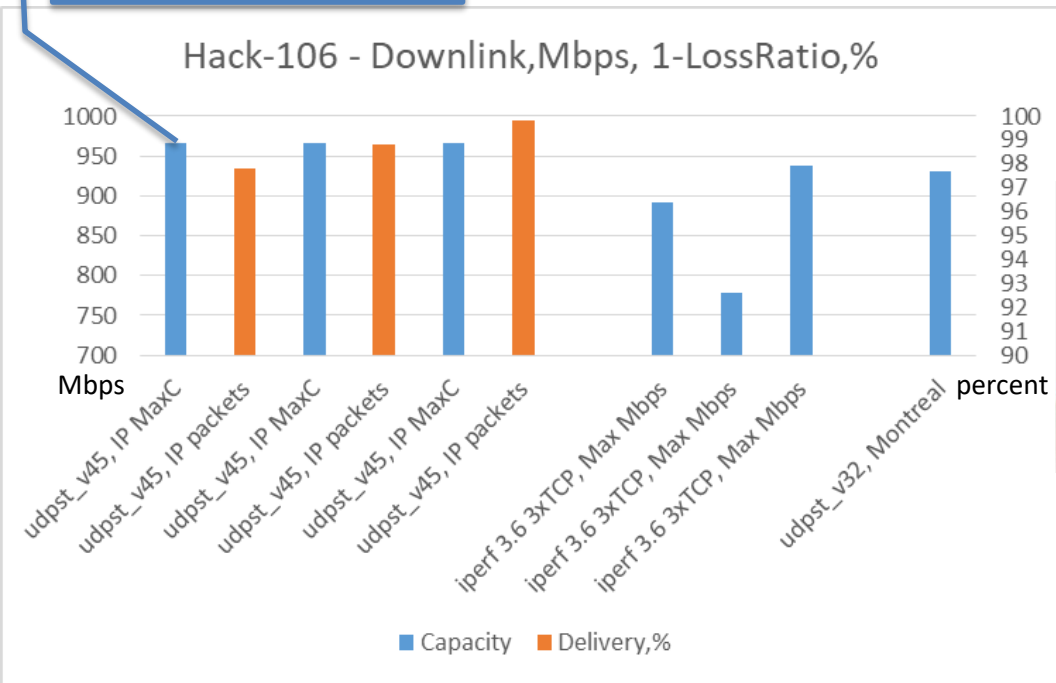


Hackathon Plan

- Maximum IP-Layer Capacity Metric & Measurement 3rd ver:
 - <https://tools.ietf.org/html/draft-morton-ippm-capacity-metric-method-01>
 - Gain UDP-based measurement experience using udpst:
 - Busy 1Gbps Access @IETF-106
 - Compare with TCP Cubic (as found in commercial tools and iperf 3.6)
- Plan: Run tests, iterate measurement parameters or rev tool
- Examine Cross-over to Benchmarking using same udpst tool

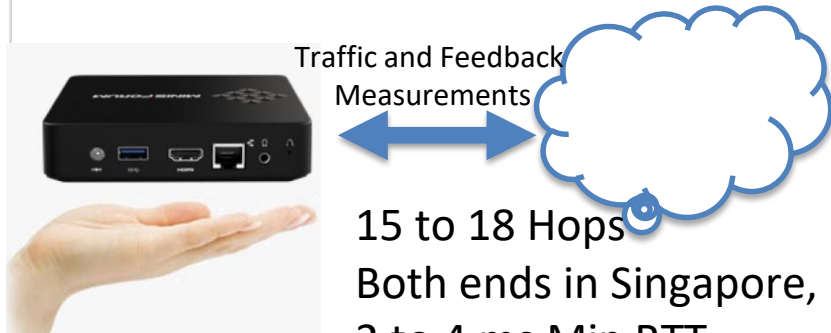
(L3/IP Hdr+Payload)
= 998.60Mbps @
L1/ETH+VLAN

What got done



Minis Forum GN34

Google Cloud VM



udpst and iPerf 3.6 Clients & Servers

What we learned

- Lots of network re-arrangement on Sunday in Singapore! ? !
 - Don't test on Sunday...
- Mini PC was a good baremetal testing platform
- udpst implementation
 - Load Adjustment: Search Algorithm uses Loss and delay variation feedback
 - Need variable Loss threshold for conditions encountered
 - Delay variation was always very low
 - May need longer test durations under Loss-only Conditions
- Action for existing draft: Add the above to Measurement Considerations Section.

Wrap Up

To Do for Next Time (or later this week):

Cross-over to Benchmarking, test with Container Infrastructure Project (Draft in BMWG):

- Fast Feedback measurements reduce testing time.