

Quality of Outcome

Bjørn Ivar Teigen Monclair
bjorn@domos.no

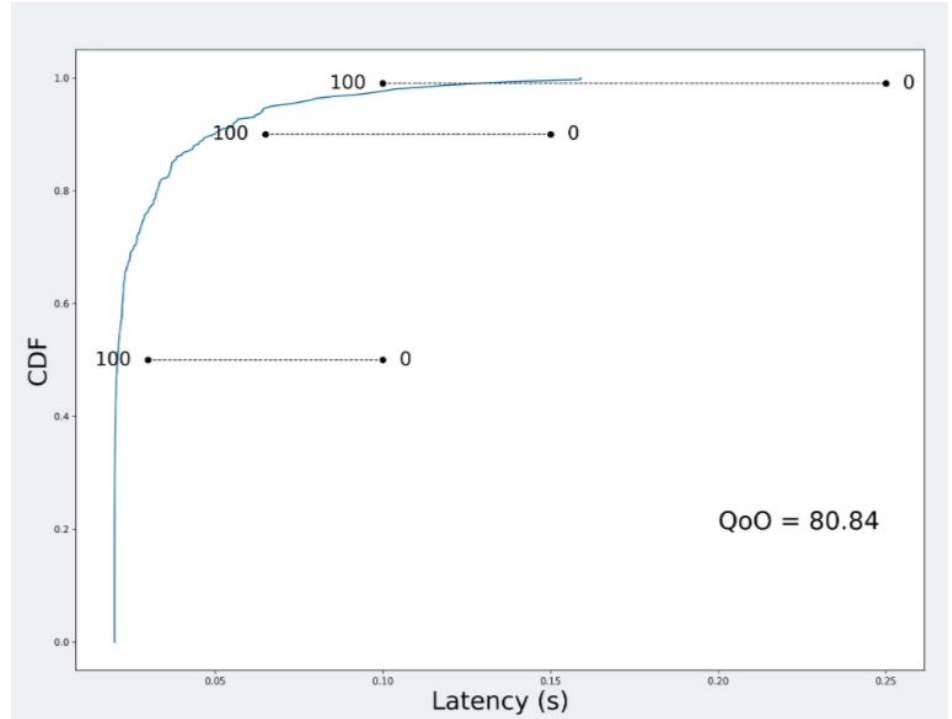
Agenda

- Quality of Outcome for different apps
 - Live streaming
 - Gaming
 - Video conferencing
- Answer this question:

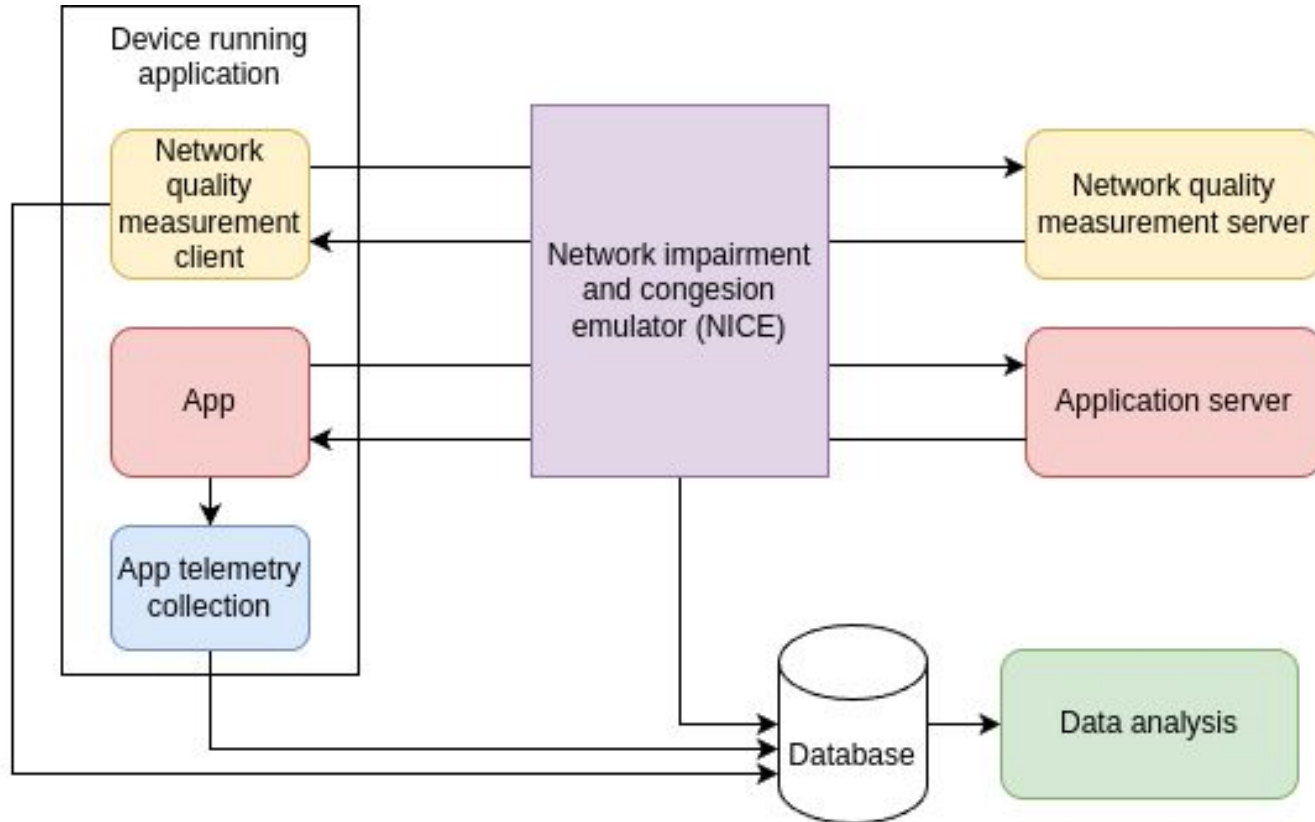
“What are the latency thresholds for perfection and uselessness?”

Refresh on QoO

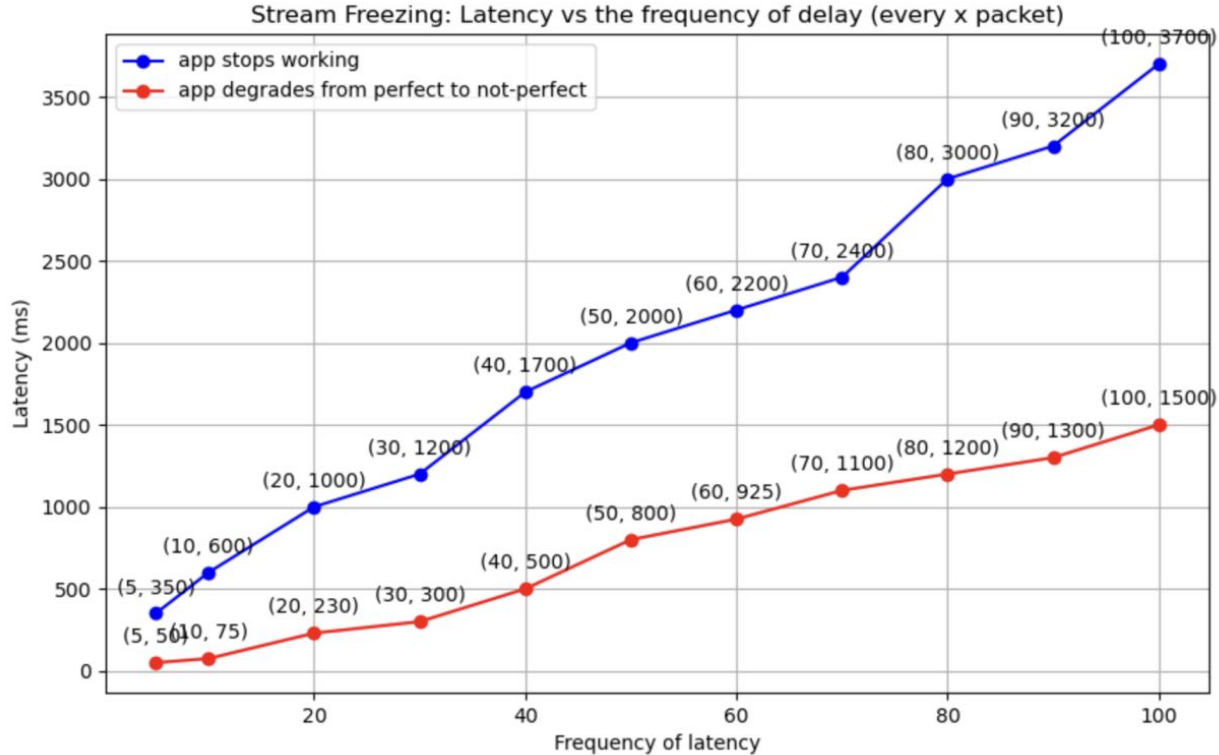
- BBF Quality Attenuation (TR-452.1)
 - Latency distribution
 - Loss as infinite latency
- Two quality thresholds per application
 - Perfection
 - Uselessness



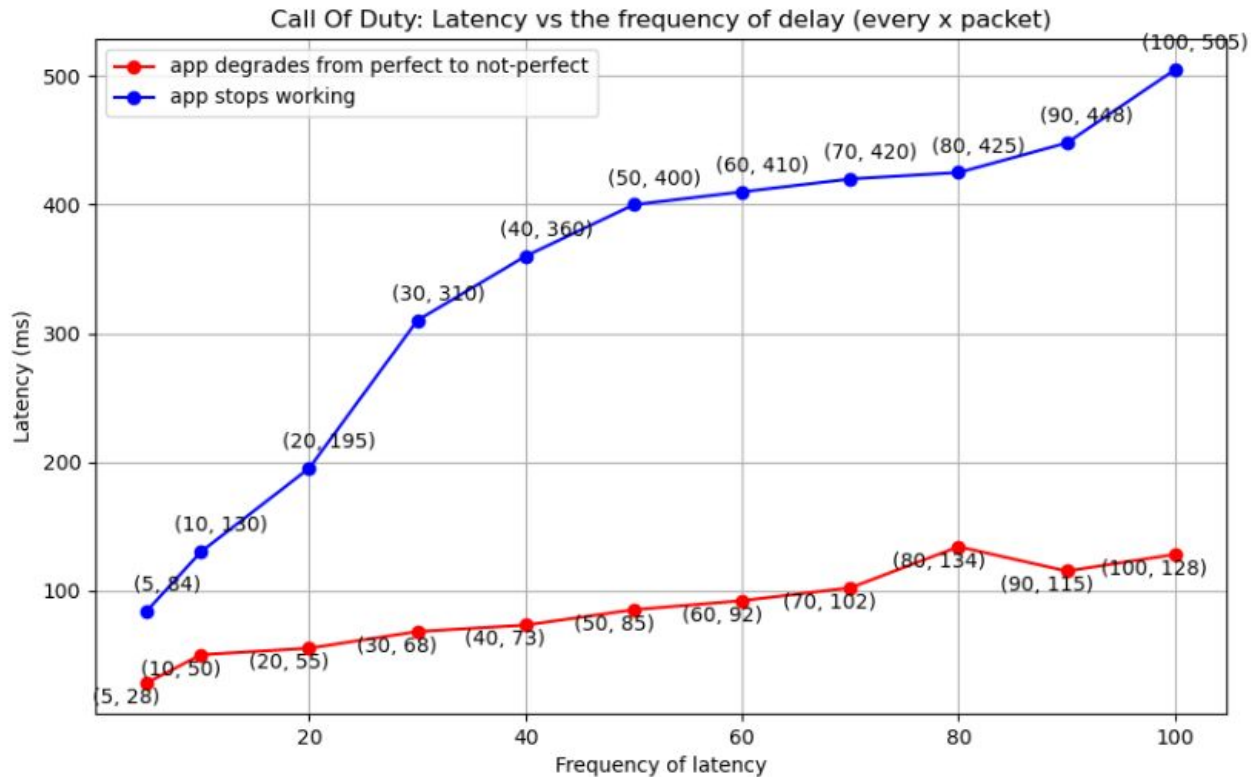
Testbed setup



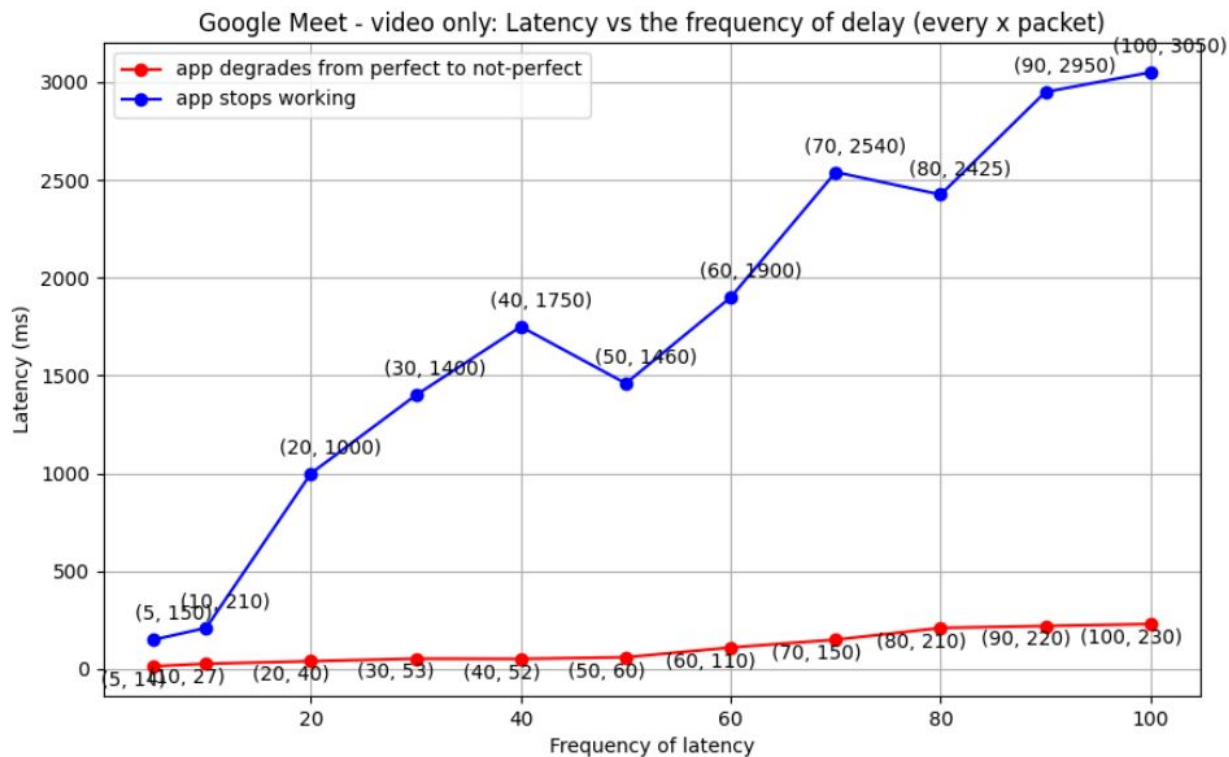
Live Streaming - Twitch



Gaming - Call of Duty on Playstation 4



Video Conferencing - Google Meet



Preliminary conclusions

- The data supports
 - Interactive applications are impacted by relatively rare latency events (1/100 packets), even when the added latency is relatively small (~100-200 ms)
- There may be some neat scaling laws for specific applications, which may simplify the specification of QoO thresholds