Some updates on QUIC deployment numbers

maprg - IETF-106 Singapore - Nov 18, 2019
QUIC traffic at YouTube

• QUIC was 33% of egress as of Dec 2017 [SIGCOMM](#)

• QUIC is now slightly more than 50% of YouTube egress traffic volume

• QUIC is now slightly more than 50% of YouTube video playbacks
QUIC Rollout at Facebook

• 80-90% of API requests from one of Facebook’s major mobile apps uses IETF QUIC with mvfst ([https://github.com/facebookincubator/mvfst](https://github.com/facebookincubator/mvfst))

• Measured at server metrics of request level data based on a sampled dataset of http request metrics

• IETF QUIC version draft 23

• 10-20% non-QUIC traffic is actually a combination of a holdout a/b test group to measure long term impact as well as fallbacks and to a small extent older apps.

• The numbers reflect more about how much Facebook rolls out QUIC so far vs. fallbacks which are a smaller part of requests.
QUIC on DT's fixed broadband

Representative measurement of DT's fixed broadband subscriber UDP/443 traffic, averaged over the last weeks retroactively from Nov 16, reveals:

- QUIC share compared to the overall unicast traffic volume
  - ~10% DOWN link
  - ~4% UP link
- A slight decrease compared to one year ago.
  - See slide 3: https://datatracker.ietf.org/meeting/104/materials/slides-104-tsvwg-sessb-43-markus-amend-multipath-dccp
- Contact: Markus.Amend@telekom.de
QUIC @ Akamai

• Offer QUIC based on User Agent, Geo Location, “CDN Product”
  • User Agent: only Chrome (will qualify other UAs in 2020)
  • Geo Location: 100% in North America, less elsewhere
  • Products: mostly Media products (video, large objects, ...)

• Clients offered QUIC that end up using QUIC:
  • Depends on the geo location
  • In China: only ~20% (UAs on Android always claim to be Chrome but are not)

• Traffic Volume
  • Typically ~1% of total volume for the products for which QUIC is enabled
  • Daily peaks are 600-800 Gbps. Max peak is ~1.8 Tbps.
  • 0-RTT: ~50% of connections
QUIC Versions

New successful QUIC connections per 2 minutes. The anti-correlation of Q043 and Q046 is interesting.