QUIC related protocols analyzers

IETF114 Side meeting feedback

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QUIC related protocols analyzers

- Given the growth of the use of QUIC and related protocols, such as MPQUIC, Multicast QUIC, MASQUE and any MASQUE variant etc,

- There may be a broader benefit in accelerating convergence and development of open network analyzers usable for these protocols.

- The side meeting was intended to explore opportunities for facilitating this convergence and identify ways for ease collaboration

QUIC related protocols

o QUIC extensions
o Multicast QUIC
o Multipath QUIC
o Masque connect-ip
o Masque connect-udp
o Masque capsule
o …

Qlog and wireshark tools status

Qlog supports
>HTTP3
>QUIC Transport

Wireshark
>HTTP3 in progress;
>QUIC Transport;
>Many extensions

See:
>https://github.com/quicwg/base-drafts/wiki/Tools#wireshark
>https://github.com/wireshark/wireshark/blob/master/epan/dissectors/packet-quic.c

Side meeting Discussions

- Requirement to have an analyser that support several of these protocols at the same time

- How the works on related protocols can be //

- Use Qlog hackathon resource to share data ?

- Wireshark support

Summary

- It was a first exchange

- we didn't reach any consensus

- We may need a dedicated ml to organize the works on open source tools

Beyond the side meeting

Establish a design team with the goal of developing requirements for a common use - publicly available - protocol analyzer for QUIC and Masque :

- Study qlog schema + *events applicability to *quic
- Study qlog schema applicability to Masque*
- Developing requirements

Start with a ml ?

open-source tools applicable to Masque

- Example Openbach
  - https://github.com/CNES/openbach-extra/search?q=quic&type=new
  - Evaluating BDP F RAME extension for QUIC
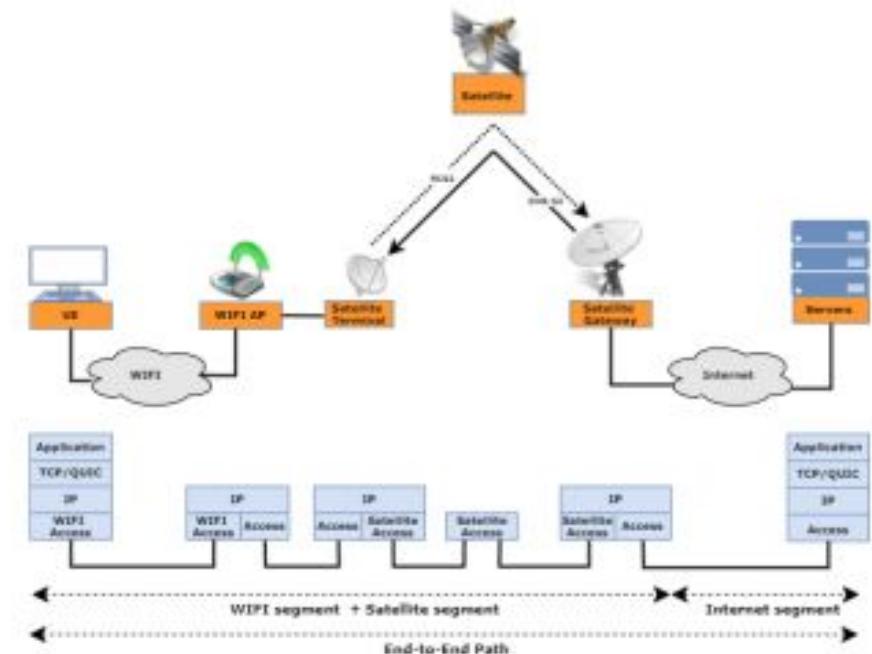 https://oatao.univ-toulouse.fr/28649/1/Kuhn_28649.pdf

Fig. 2.   End-to-end SATCOM broadband access - with QUIC