Measuring QUIC Reachability

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QUIC is a transport protocol that comprises a growing and significant portion of Internet traffic. The protocol is layered on top of UDP, which might prove problematic given that many middleboxes are known to filter UDP traffic. In practice Google have found that QUIC can be used over more than 90% of the paths (Langley *et al.*; SIGCOMM'17). However, they have already reported ossification issues with some firewalls only allowing known versions of QUIC through. This raises many questions: is QUIC traffic treated differently from other UDP traffic? Are there firewalls that only let specific versions QUIC through? Can we expand on Google's dataset?

To begin answering these questions we build upon Ruth *et al.* (PAM 2018), which identified various QUIC servers deployed around the world. We probe those servers from various UK ISPs. This way, we can report the success rate for UK based QUIC hosts when they try to initiate connections with remote QUIC servers. Obviously, this approach has limitations. For example, the hosts we use for probing reside in a very concentrated area and comprise a small number of ISPs. As future work, we would like to increase the number of participants in the experiment, as well as identify other approaches to perform this study.