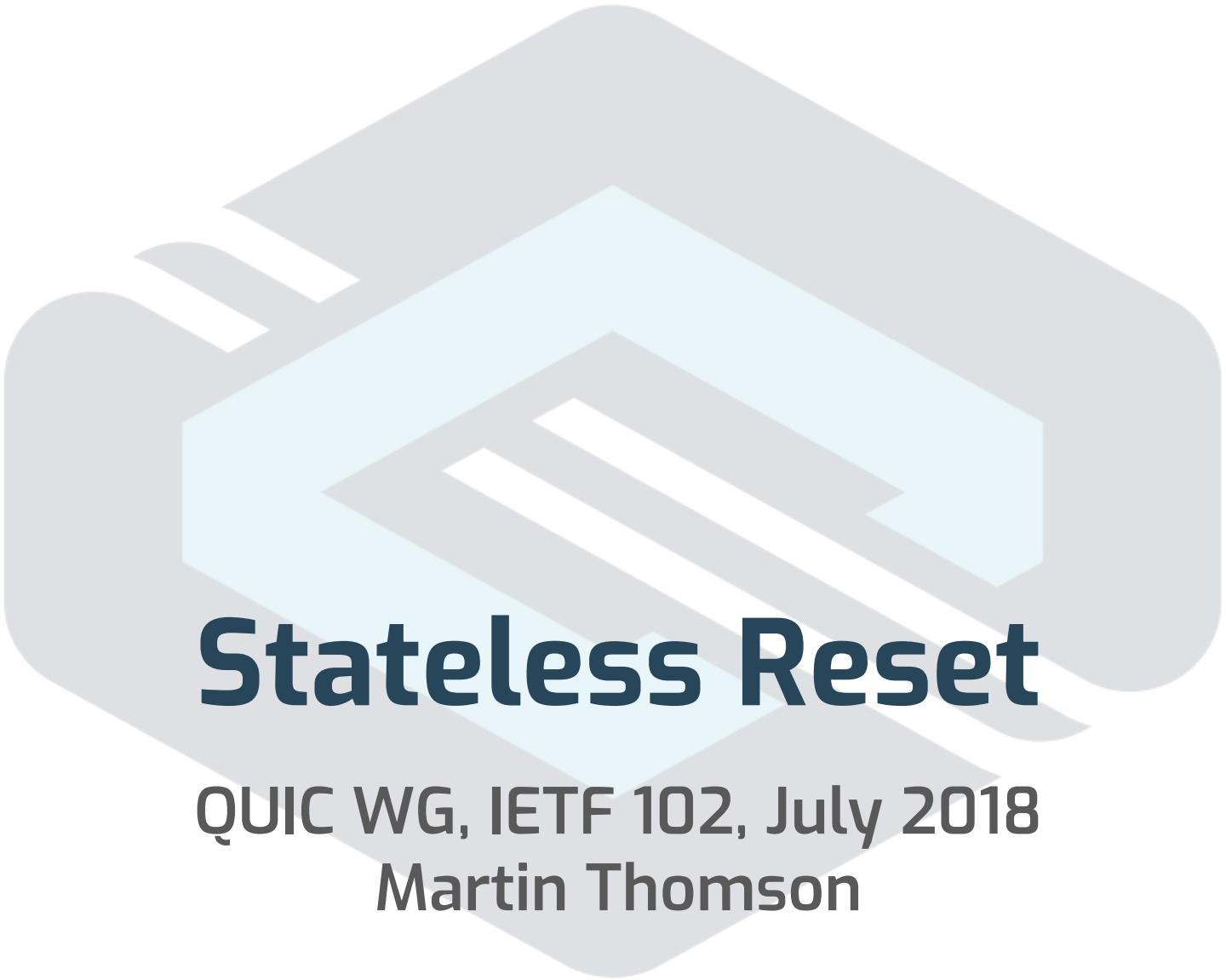


Stateless Reset

QUIC WG, IETF 102, July 2018

Martin Thomson

Problem

Stateless Reset is indistinguishable from a QUIC packet

... that no one can decrypt

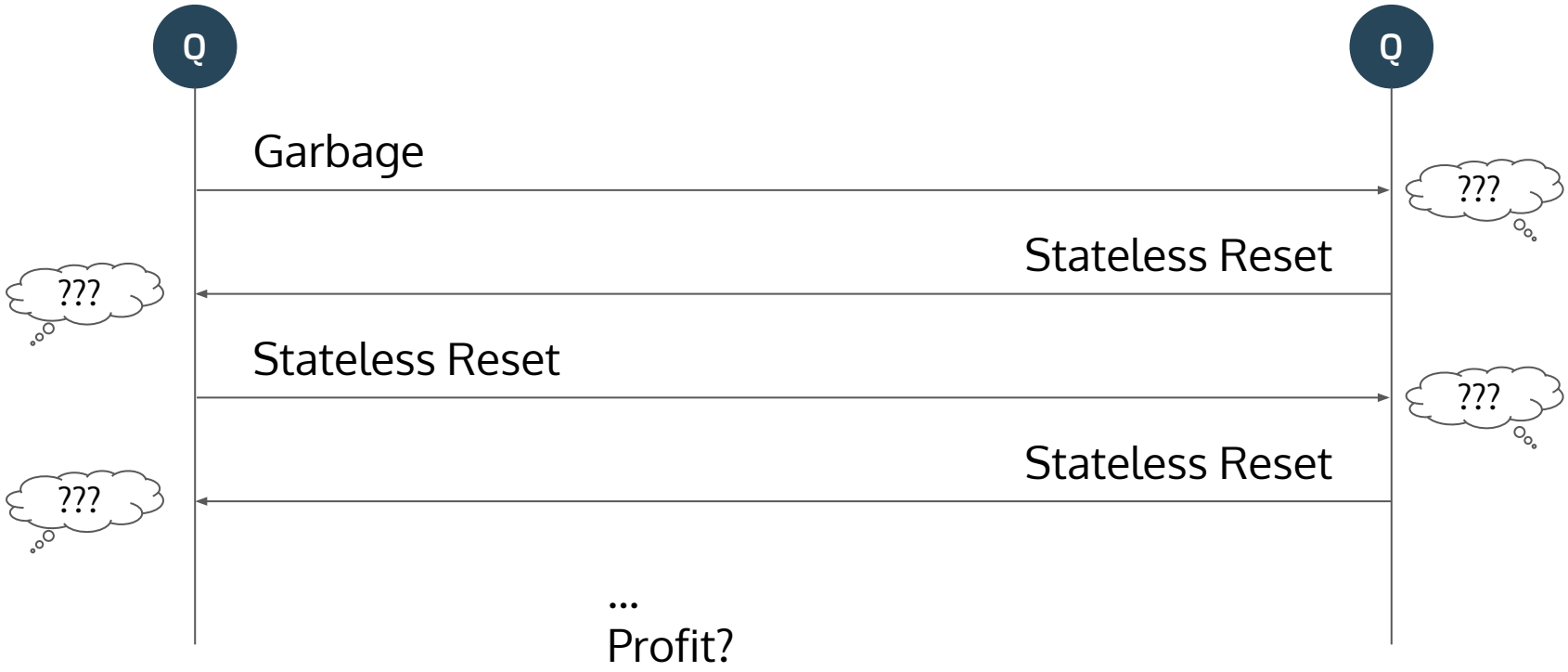
Stateless Reset is send in response to a QUIC packet

... than an endpoint can't decrypt

Wheeeeeeeeeeeeee

There is only one thing that stops the resulting exchange:

There is no amplification, so packet loss ends it



Simple Solution

Stateless Reset is small

Don’t send it if it is smaller than the packet that was received

It isn’t the smallest possible packet though

So really small packets never trigger a stateless reset

Slightly More Complex Solution

Randomly drop stateless reset if it isn't smaller than the incoming packet

For example,

P(ignore) = len(reset) > len(packet)

might become

P(ignore) = (len(reset) - len(packet) + A) / B