

# draft-jaeggli-v6ops-pmtud-ecmp- problem-01

Joel Jaeggli  
For  
IETF 90

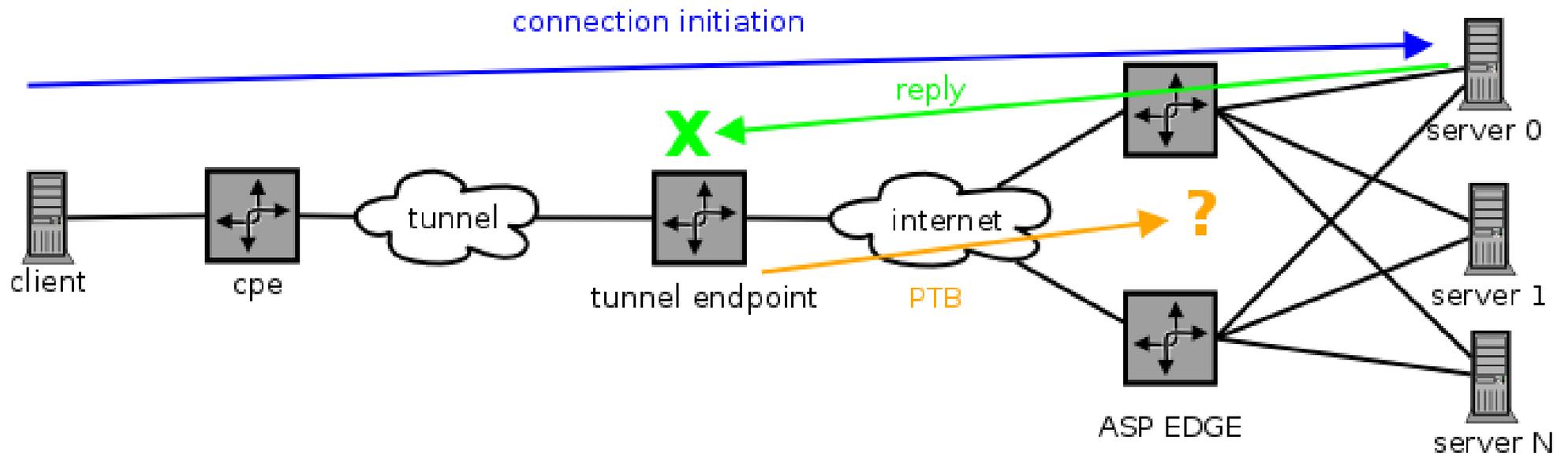
# Goals

- Highlight a problem we encountered
  - Our experience is not unique
  - Nor is the problem specific to IPv4
    - The difference if there is one is a question of frequency in mitigation
- Share the experience with others who may be in a similar situation.
  - e.g. work-arounds are that hard, however they're definitely point-solutions.
- Maybe start a Dialog on protocol changes that could ameliorate this issue.

# Problem

- An ICMPv6 type 2 PTB message generated on the path between a client and an ECMP load balanced server will have the anycast address as the destination and will be statelessly load balanced to one of the anycast servers.
- While the ICMPv6 PTB message contains as much of the packet that could not be forwarded as possible, the payload's IP headers do not factor into the forwarding decision. Because of this, the results of the ICMPv6 ECMP hash do not match that of the corresponding TCP or UDP ECMP hash.

# Problem



# Next Steps

- In band PMTUD
  - RFC 4821
  - maybe it would be nice if it were widely implemented / deployed
- Do something with this document?
  - Useful advice?
  - Serve as an example for to what not to do?