Path Aware Networking proposed RG

Brian Trammell and Jen Linkova, Chairs Thursday 16 November 2017 — IETF 100 Singapore

Note Well

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Agenda

- Intro / Note Well / Agenda (you are here)
- Path Dissemination
- Interfaces for Path Selection
- Provisioning Domains
- ALTO and extensions
- Path awareness for congestion control
- Open Questions -> Discussion

10m, Chairs

20m, Christos Pappas

20m, Laurent Chuat

15m, Eric Vyncke

5m, Sabine Randriamasy

5m, Xingwang Zhou

30m, Brian Trammell + all

Brief review: Why are we here?

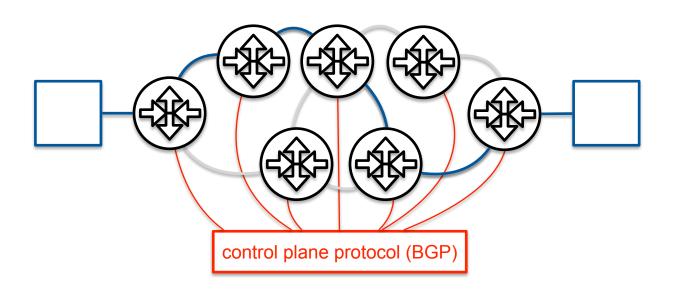
We identified a common theme* of *path awareness* in a lot of research on the edge of standardization in the IETF:

- multipath transport protocols (MPTCP, future QUIC)
- hybrid access approaches (BANANA BoF, MPTCP)
- emerging path control approaches (SFC, SPRING)
- dynamic interface/transport selection (MIF, TAPS)
- work on path signaling (IAB stackevo, PLUS, ALTO)

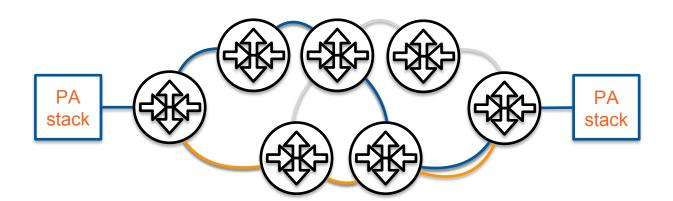
Exploring this theme seems like a job for a new RG.

^{*}please don't feel bad if we missed your favorite path-aware WG

Path Awareness Illustrated



Path Awareness Illustrated



What's so interesting about path aware networking?

In the control plane, of course, all routing is "path aware".

We're interested in how this extends to the edge*.

- Endpoint discovery of paths
- Explicit association of properties to paths by endpoints
- Explicit endpoint selection of paths

This is happening anyway. We should be explicit about it.

^{*}tunnels have endpoints, too

Documents

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draft-trammell-panrg-questions:
open questions in path aware networking (see later slot)
looking for co-authors
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suggested in Prague:

catalog of failed transport-layer signaling approaches

other documents?

Workshop

May propose a workshop on path aware networking for SIGCOMM 2018 in Budapest (this would be our fall '18 PANRG meeting)

Call for papers derived from PRG charter

Interested in serving on the TPC?

Deadline next Thursday.