

PCN Edge Behaviour Drafts

Status as of IETF 75

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Background

- Updated drafts submitted in early July
 - draft-ietf-pcn-cl-edge-behaviour-00.txt
 - draft-ietf-pcn-sm-edge-behaviour-00.txt
- Reflect outcome of last meeting's discussions
 - Also reflect a great deal of off-list discussion
- Issues raised both on- and off-list

On-List Issues

- Need to address problem of identifying an IEA
 - Proposal: not going to vary with the edge behaviour
 - Hence document problem and solution elsewhere, perhaps with reference from edge behaviour drafts
 - Chartered signalling draft milestone the likely place (should have been the architecture document)
- Granularity of flow identification at egress and ingress
 - We can't see a way to avoid DSCP + 5-tuple granularity in IP case
 - Could be DSCP and tunnel ID or LSP in specific deployments

On-List Issues cont'd

- Measurement delays for flow termination (CL case)
 - see discussion of effect of differing round trip times
- Information flows need to be related to use/non-use of resource signalling
 - agreed that flow termination always requires asynchronous messaging from egress node
 - drafts currently assume asynchronous signalling for admission state
 - asynchronous signalling implies requirement for reliability, hence delays for reattempts when message lost
 - should add to current discussion the case where admission state is added to (implicit in?) egress node response to resource signalling

Off-List Issues

- Effect of RTT on flow termination
 - Daisuke has demonstrated interaction between multiple aggregates traversing the same bottleneck
 - Differing round trip times can result in termination biases
 - More of the shorter RTT flows may be terminated
 - Finding has provoked discussion of details of measurement behaviour for flow termination
 - Probably want initial measurement periods just long enough to produce reliable estimates at both egress and ingress
 - ~ 30 unmarked packets, based on statistical rule of thumb
 - Discussion continues over timing and processing of subsequent observations in same episode

Off-List Issues cont'd

- Amount of memory/smoothing needed in the system
 - Averaging per packet or per period or over multi periods
 - Does oscillation matter? If not, don't need much smoothing
 - Discussion continues