Additional Objective Functions and Metric Types in PCEP

draft-ali-pce-additional-of-and-metric-00.txt

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Outline

- Requirements
- Solution
- Next Steps

Requirements

- Network performance criteria (e.g. latency) are becoming as critical to path selection as other TE metrics (e.g., in financial networks).
- Selection of a path that minimizes end-to-end latency and/or end-to-end latency variation is required.
- Even if paths are computed to minimize some other TE metric, it is often required to specify an acceptable latency and/ or latency variation bound as a constraint.

Solution Background

- The METRIC object is defined in RFC5440.
- RFC5440, RFC5541 and RFC6006 define various Metric Types.
- RFC5541 extends the PCEP to include Objective Functions.
- RFC5541 and RFC6006 defines various Objective Functions supported by PCEP.

Solution

- Solution is simple; define new metric types and objective functions for latency and latency variation metrics.
- New Metric Object Types
 - P2P Latency Metric
 - P2P Latency Variation Metric
 - > P2MP Latency Metric
 - P2MP Latency Variation Metric
- New Objective Functions
 - Minimum Latency Path Objective Function
 - > Minimum Latency Variation Path Objective Function
- Other than specifying code points for the new metric types and objective function, the draft does not propose any changes to PCEP

- There is an overlap with draft-dhody-pce-pcepservice-aware.
- Authors have agreed to merge the documents.
- Will like to request WG feedback.

Thank You.