Motivation

• Use cases like end-2-end 1+1 path protection, bidirectional path correlation or performance measurement (PM) require the ability to implement “Path Segment” in SR networks:
  • [draft-ietf-spring-mpls-path-segment] introduces a new segment to uniquely identify an SR path referred to as Path Segment. Adopted in the SPRING WG recently.

• For configuring or allocating Path Segment to an SR path, extensions in PCEP are needed.
  • Path Segment allocation by PCEP
  • PCE controlled ID Space, where PCC informs the PCE the ID space range from which it should make allocations

• Bidirectional path correlation is required in some scenarios such as mobile backhaul transport network for Segment Routing.
  • Path Segment can be used for binding
Recent Modifications

• LSP.P-flag: Path Segment Allocation flag -> PCE allocation Flag,
  • which can be reused by many other resource request, like binding SID.
  • The change has been mentioned in PCECC drafts already. Update to sync up.

• MSD: adding some text to describe MSD consideration in path segment allocation.

• Refs sync up

• Fixed some nits.

Personnel Changes

• Added Quan Xiong from ZTE as a new co-author.

Implementation Status

• Huawei: implementing in PCE and PCC products.
Updates: draft-li-pce-sr-bidir-path-05

Recent Modifications

• The comments were applicable to draft-ietf-pce-association-bidir and draft-li-pce-sr-bidir-path, so both have been updated accordingly.
• The F-bit in the figure represents the directions of LSP from PCC point of view (as opposed to PCE point of view).
• Clarify PLSP-ID for bidirectional LSP in Section 5.
• Various editorial changes.

Personnel Changes

• Added Quan Xiong as a new co-author.

• Implementation Status:
  • Huawei: implementing in products.

Many thanks to Marina Fizgeer and Quan Xiong’s review!
Next Plan

• The drafts are ready for WG adoption
  • Contents of drafts are stable
  • Commercial implementation is going on
  • Supported by operators and vendors

• We would like to request WG adoption for drafts
  • draft-li-pce-sr-path-segment-05
  • draft-li-pce-sr-bidir-path-05

• Your comments and contributions are very welcome!
Thank you

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