Stateful PCE for SR Inter-domain

draft-xiong-pce-stateful-pce-sr-inter-domain-01.txt

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Overview

- Path Segment
  - ietf-spring-mpls-path-segment-00
  - draft-xiong-mpls-path-segment-sr-mpls-interworking-00
  - draft-xiong-spring-path-segment-sr-inter-domain-00

- PCEP extension for bidirectional SR Path with Path Segment
  - draft-li-pce-sr-path-segment-06
  - draft-li-pce-sr-bidir-path-05

- PCEP extension for Stateful Inter-domain
  - draft-dugeon-pce-stateful-interdomain-02

- PCEP extension for Inter-domain end-to-end bidirectional SR Path with Path Segment
  - draft-xiong-pce-stateful-pce-sr-inter-domain-01
  - draft-hu-pce-stitching-lsp-association-01
SR inter-domain with PCE

• SR end-to-end bidirectional LSP
  • The SR end-to-end bidirectional VPN service may be achieved with path segment correlation.
    • Bidirectional Path Correlation
    • Inter-domain Path Correlation

• The Allocation of Path Segment
  • Parent PCE allocated
  • Child PCE allocated
  • PCC allocated

• PCE Solution for Inter-domain
  • Inter-Area or Inter-AS
  • PCC-initiated or Stateful HPCE-initiated
SR Inter-Area Solution with Stitching LSP Association

- **SR-Area1**: Child-PCE1
- **SR-Area2**: Child-PCE2
- **SR-Area3**: Child-PCE3

**Paths**:
- A->Z path1
- A->Z path2
- A->Z path3

**LSPs**:
- LSP-1
- LSP-2
- LSP-3

**Path Segments**:
- Path Segment-1
- Path Segment-2
- Path Segment-3

**Stitching LSP Association Group**

**Associated end-to-end LSP**
SR Inter-AS Solution with Stitching Label

- **SR-AS1**
  - A -> Z path 1
  - LSP-1

- **SR-AS2**
  - A -> Z path 2
  - LSP-2
  - Stitching Label
  - Stitching Lable-1
  - Path Segment-1

- **SR-AS3**
  - A -> Z path 3
  - LSP-3
  - Stitching Label
  - Stitching Lable-2
  - Path Segment-2

- **Child-PCE1**
  - Child-PCE2
  - Parent-PCE
  - Parent-PCE

- **Stitched end-to-end LSP**
  - Path Correlation
  - Path Segment-3

- **SR-AS1**
  - A -> Z path 4
  - A -> Z path 5
  - LSP-4
  - LSP-5

- **Path Segment-4**
  - Path Segment-5

- **SR End-to-end Bidirectional LSP**
Next Step

• Detailed solutions for PCEP.

• Comments and discussions are very welcome!
Thank you!