Distribution of MPLS TE LSP State using BGP

draft-dong-idr-te-lsp-distribution-00

Jie Dong, Mach Chen (Huawei)

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The states of established LSPs are required by some external components

- Stateful PCE, for path computation
  - In management based PCE scenario, PCEP session may not be established between LERs and PCE
- Centralized controller, for service placement
- NMS, for network visualization
- ...

A general mechanism is needed to collect the states of established TE LSPs
Background (cont.)

- BGP has been extended to distribute Link-State and Traffic Engineering information
- A unified protocol/interface for collecting network layer information is desired
- This document extends BGP to distribute TE LSP states
Proposed Solution

- A new NLRI “LSP Information NLRI”
  - AFI value is TBD, SAFI = 1 for public network

- NLRI-Type = 1: IPv4 LSP NLRI
- NLRI-Type = 2: IPv6 LSP NLRI
Proposed Solution (2)

- IPv4 LSP Identifier

- IPv6 LSP Identifier
Proposed Solution (3)

• A new Path Attribute “LSP State Attribute”

• Objects can be carried in the Attribute:
  - LSP Attributes (LSPA) Object
  - Explicit Route Object (ERO)
  - Record Route Object (RRO)
  - BANDWIDTH Object
  - METRIC Object
  - Protection Object
  - Admin Status Object
Next Steps

• Solicit comments & contributions
• Improve the draft