MPLS Source Label

draft-chen-mpls-source-label-02

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Problem Statement

- MPLS forwarding based label stack

  - MPLS label identifies an FEC and assumes the destination address semantic

  - No source information encoded in the label stack

- No support for easy flow and source identification

  - LDP based MP2P (RFC5036) and MP2MP (RFC6388) LSP

  - Segment Routing LSP

  - Service LSPs (e.g., L3VPN)

- Flow/source identification is pre-condition of:

  - Passive performance measurement

  - Traffic matrix collecting and steering

  - …

Solution Overview

- Source Label Indicator (SLI)

  - A special purpose label

  - Placed immediately before the SL

  - Indicate the next label is SL

- MPLS Source Label (SL)

  - Designed to identify ingress LSR of an LSP

  - Unique within the scope it used

Label stack

…

LSP Label

SLI

SL

…

3
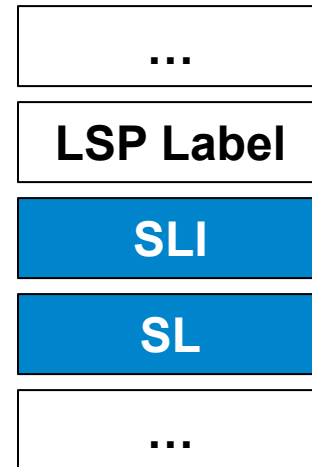
Updates Since Last Version

- Add a new co-author (Gregory Mirsky)

- Uniqueness of Source label

  - Source label MUST be unique within the scope it used (e.g., administrative domain)

  - Allocated from a dedicated label space

    - equivalent to context label, SLI is the context

  - Configuration system (e.g., static configuration) is one way to make sure the uniqueness

Next Steps

- Welcome to review and comment.

- WG adoption?