RFC 3811 bis

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Overview

- This document obsoletes RFC3811 as it addresses the need to support IPv6 extended TunnelID by defining a new TC.

- MplsNewExtendedTunnelID suggests using IPv4/IPv6 address of the ingress or egress LSR for the tunnel for an IPv6 network.

Reasons

- RFC3811 should support IPv6 extended TunnelID, which should cover all cases including IPv4-only, IPv6-only, dual stack
- Fix errors
  - Misleading MplsLSPID description in 3811

Main Changes

- Old MplsExtendedTunnelId status is changed to obsolete.
- A new defined MplsNewExtendedTunnelId is added as below.
  MplsNewExtendedTunnelId ::= TEXTUAL-CONVENTION

  STATUS   current

  DESCRIPTION

  "A unique identifier for an MPLS Tunnel. This may represent an IPv4 address of the ingress or egress LSR for the tunnel for an IPv4 network. For IPv6 this represents an IPv4/IPv6 address of the ingress or egress LSR for the tunnel for an IPv6 network.

  This value is derived from the Extended Tunnel Id in RSVP or the Ingress Router ID for CR-LDP."

  REFERENCE

   "RSVP-TE: Extensions to RSVP for LSP Tunnels,   [RFC3209]. Constraint-Based LSP Setup using LDP, [RFC3212]."

  SYNTAX OCTET STRING(SIZE(16))

Main Changes 2

- The confusing part of MplsLSPID is modified as below.
- MplsLSPID ::= TEXTUAL-CONVENTION

….

For LSPs signaled using RSVP-TE, the LSP_ID is a local number defined as a 16-bit (2 byte) identifier used in the SENDER_TEMPLATE and the FILTER_SPEC that can be changed to allow a sender to share resources with itself. The LSP_ID is only unique within the context of the SESSION and it cannot be used as network identifier. RSVP-TE signaling use a 5-tuple to uniquely identify an LSP within an operator's network. This tuple is composed of a Tunnel End-point Address, Tunnel_ID, Extended Tunnel ID, Tunnel Sender Address, and LSP_ID.

The length of this object should only be 2 or 6 bytes. If the length of this octet string is 2 bytes, then it must identify an RSVP-TE LSP_ID, or it is 6 bytes, it must contain a CR-LDP LSPID."

Moving forward

- We think this is useful – do you?
- Other issues to fix?
- We have addressed comments from the list.
- Adopt as a wg item?