Signaling Entropy Label Capability using IGP

draft-xu-mpls-el-capability-signaling-igp-00

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Motivation

- [RFC6790] proposes to use Entropy Labels for MPLS traffic load-balancing and therefore defines the signaling of Entropy Label Capability (ELC) via the following label distribution protocols:
 - LDP
 - □ RSVP-TE
 - BGP
- Segment Routing (SR) is a new MPLS paradigm in which IS-IS or OSPF, is used as label distribution protocols. In such scenarios, the ELC signaling mechanisms defined in [RFC6790] are inadequate.
- This document defines mechanisms to signal the ELC using IS-IS or OSPF accordingly.
 - As for how to insert EL in the SR architecture, please refer to draft-kini-mpls-entropy-label-src-stacked-tunnels-01.

Advertising ELC using IGP

Advertising ELC using OSPF

The OSPF Router Information (RI) Opaque LSA defined in [RFC4970] is used by OSPF routers to announce their capabilities. A new TLV within the body of this LSA, called ELC TLV (Type=TBD, Length=0) is defined to advertise the capability of the router to process the ELI and EL. This TLV is applicable to both OSPFv2 and OSPFv3.

Advertising ELC using IS-IS

The IS-IS Router CAPABILITY TLV defined in [RFC4971] is used by IS-IS routers to announce their capabilities. A new sub-TLV of this TLV, called ELC sub-TLV (Type=TBD, Length=0) is defined to advertise the capability of the router to process the ELI and EL.

Next Steps

■ WG adoption?