IETF 108 – Online
July 2020
LSR Working Group

draft-ietf-lsr-ospf-prefix-originator-06

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Recap

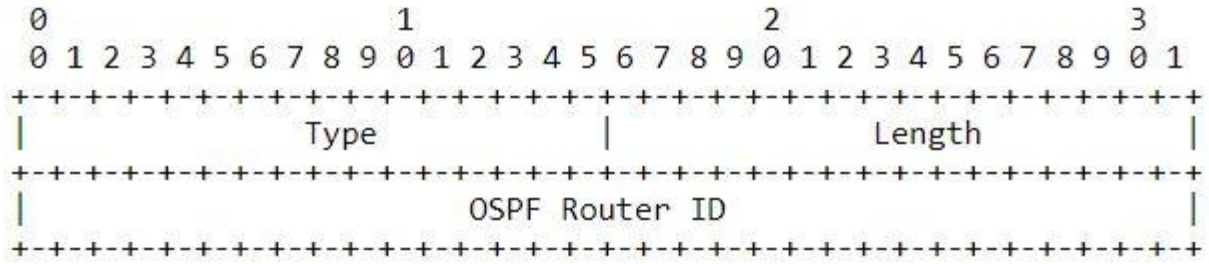
- First presented at IETF 103 Bangkok
- Adopted by WG just before IETF 104 Prague

- Draft proposes a mechanism that enables inclusion of originator router information along with a prefix advertisement for OSPFv2/v3

- RFC 7794 specifies similar extensions for IS-IS

Prefix Source Router ID Sub-TLV

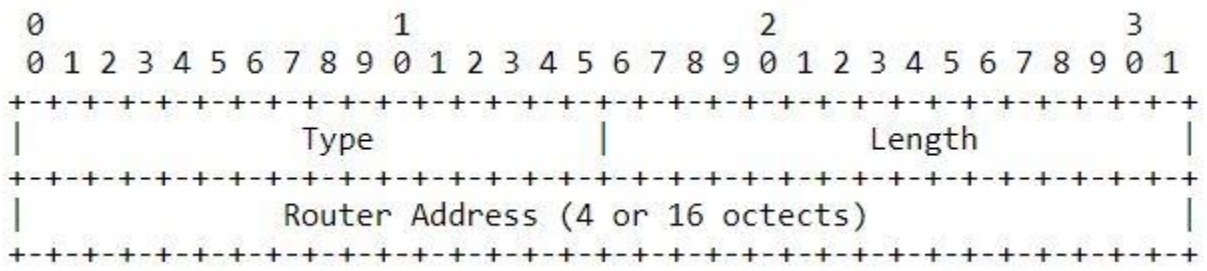
- Document specified this Sub-TLV for inclusion along with the Prefix Advertisement
  - For OSPFv2 : Sub-TLV of OSPFv2 Extended Prefix TLV advertised using OSPFv2 Extended Prefix Opaque LSAs
  - For OSPFv3 : Sub-TLV of the Extended LSA prefix TLVs advertised using OSPFv3 Extended LSAs



- It carries the OSPF Router ID of the OSPFv2/v3 router that has originated the prefix advertisement in the OSPF domain
- OSPF Router ID is not necessarily a reachable address of the originating router and is required to be unique only within an OSPF domain

New : Prefix Originator Sub-TLV

- The updated version additionally introduces this new Sub-TLV for inclusion along with the Prefix Advertisement in OSPFv2/v3 similar to the Prefix Source Router-ID Sub-TLV



- It carries a unique and reachable IP address of the OSPFv2/v3 router that has originated the prefix advertisement
  - May be picked based on the TE Router-ID of the originating node
- Enables signalling of originator node information across domains for external prefixes (from another OSPF or some other protocol domain)

Reasons for Two Sub-TLVs

- Both are complementary and optional – each with their individual use cases
- Prefix Source Router ID Sub-TLV provides
  - OSPF Router ID for identification of nodes in OSPF domain for use cases related to topology learning/identification
- Prefix Originator Sub-TLV provides
  - Reachable Address of the originating router (e.g. to determine it's SR Node SID) for traffic engineering use cases
  - Determination of originating router for prefixes redistributed across IGP domains (e.g. even from ISIS into OSPF)
  - Aligns with RFC7794 for ISIS that conveys reachable and unique IP address of the originating router

Other Updates

- Added clarifications on the use cases
- Removed references to ELC as that is now advertised as a Prefix Option and does not require identification of the Originating Router
- Removed references to ERLD and MSD since they are not relevant to the reaching the originating node for the prefix
- Move some remaining text related to inter-area and inter-AS topology re-construction use case based on prefix advertisement into an informative Appendix section
- More detailed procedures for advertisement of originating node information
- Added Security Considerations

Next Steps …

- Request reviews/feedback for document progression towards WGLC