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• **Scope:**
  - Advertisement of link-state topology information in new BGP NLRIs and Attributes
  - Definition of a common topology abstraction model for carrying both OSPF and/or ISIS original LSDBs
  - Deliver topology information to topology servers, orchestration elements, ALTO servers, etc, residing outside the routing layer and requiring network topology information
  - Allow the manipulation of topology information through aggregation, hiding, abstraction, etc.
  - Allow a topology server to reconstruct the end-to-end topology view based on multiple BGP-LS feeds.

• **Out of scope:**
  - Leak link-state information back into the routing layer
  - Use BGP-LS for installing state into routers

• **Details on Motivation and Applicability of BGP-LS are explained in Section 2**
• IGP Redistribution into BGP-LS
• Advertisement of BGP-LS NLRIs to RR
• Advertisement of BGP-LS NLRIs to Topology Servers, PCEs, ALTO servers, …
New Address Family: AFI/SAFI TBD
New NLRI: BGPLS NLRI
“NLRI Type” field

Section 3.2: NLRI format

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Figure 1: Link State SAFI 1 NLRI Format
• NLRI Type allows multiple NLRI formats within BGP-LS AFI/SAFI

• Following are currently defined
  – Type = 1: Link NLRI, contains link descriptors and link attributes
  – Type = 2: Node NLRI, contains node descriptors and node attributes
  – Type = 3: IPv4 Topology Prefix, contains IPv4 prefix descriptors and attributes
  – Type = 4: IPv6 Topology Prefix, contains IPv4 prefix descriptors and attributes

• More to come: TE-LSPs
• Operations
  – No changes in BGP procedures
    • Loop prevention and path selection
  – BGP Path selection rules apply
    • May be used by receiver to prefer given source
Updates to the 02 version

Identifier TLV:
  – Instance, Domain, Area, OSPF Route Type and Multi-Topology identifiers are all encoded in the Identifier TLV

Clarity in the text about Descriptors and Attributes
  – For Node, Link and Prefixes

Fixed inconsistencies in terms of Area/Router/Link/PREFIX Identifiers

Added prefix attributes

Added table summarizing all TLVs and SubTLVs
Three implementations
Interoperability tests planned very soon
Thank You