

draft-ietf-idr-ls-distribution-02

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Thanks to:

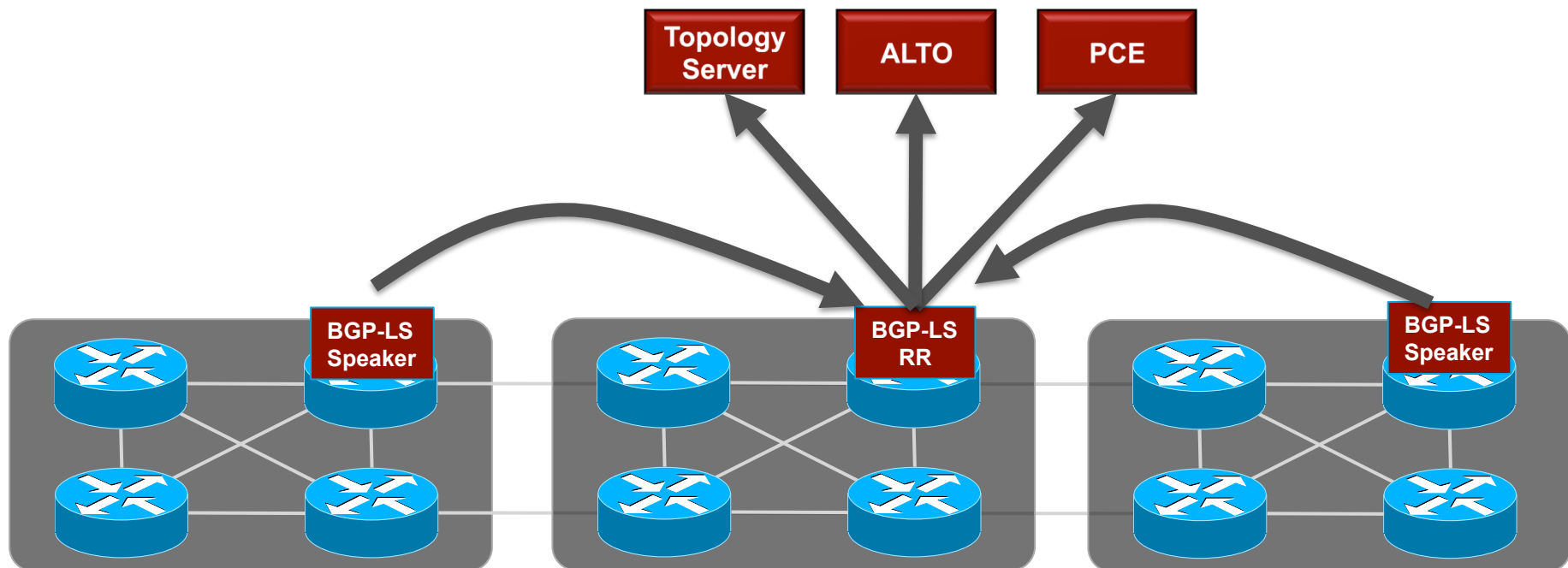
Nischal Sheth, Alia Atlas, David Ward, Derek Yeung, Murtuza Lightwala, John Scudder, Kaliraj Vairavakkalai, Les Ginsberg, Liem Nguyen, Manish Bhardwaj, Mike Shand, Peter Psenak, Rex Fernando, Richard Woundy, Steven Luong, Tamas Mondal, Waqas Alam, Vipin Kumar, Naiming Shen and Yakov Rekhter

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- Scope:
 - Advertisement of link-state topology information in new BGP NLRI 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

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- IGP Redistribution into BGP-LS
- Advertisement of BGP-LS NLRIs to RR
- Advertisement of BGP-LS NLRIs to Topology Servers, PCEs, ALTO servers, ...



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- New Address Family: AFI/SAFI TBD
- New NLRI: BGPLS NLRI
- “NLRI Type” field
- Section 3.2: NLRI format

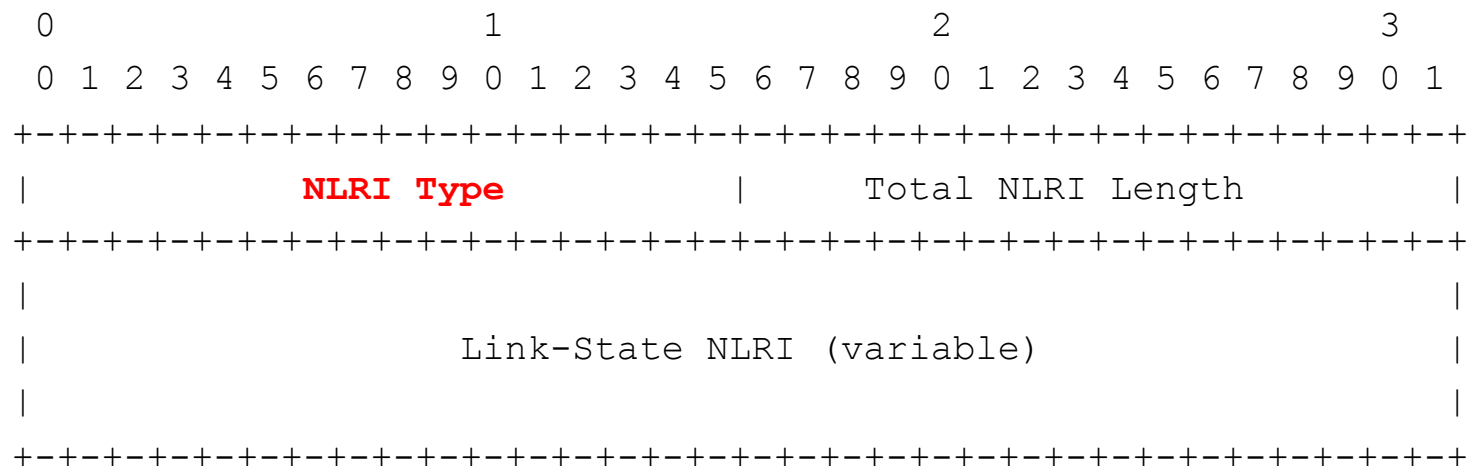


Figure 1: Link State SAFI 1 NLRI Format

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- 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

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- 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

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- 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

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- Three implementations
- Interoperability tests planned very soon

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Thank You