A generic YANG Data Model for Label Switched Path (LSP)

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draft-zhang-mpls-lspdb-yang-00.txt

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Objective

- ✓ What is the aim?
  - ➢ A high level generic LSP database module to capture the common attributes of LSP, irrespective of the protocol/signaling mechanism associated with it.
  - ➢ operational attributes only.
    - ➢ (static LSP configuration might be included)
  - ➢ Avoid duplicated efforts and maintain consistency in LSP-info-related activities across multiple WGs;
- ✓ **NO-GOAL**?
  - ➢ a generic signaling-protocol YANG model, which act as a basis for configuring and managing all signaling protocols

LSP DB Tree Overview

```
module: ietf-lspdb
   +--ro lspdb
      +--ro lsp-num?     uint32
      +--ro lsp-entry* [system-generated-id]
         +--ro system-generated-id    uint64
         +--ro lsp-signaling          lsp-signalingtypes
         +--ro is-primary?            boolean
         +--ro lsr-type?              lsr-types
         +--ro source                 inet:ip-address
         +--ro destination            inet:ip-address
         +--ro creation-time?         yang:date-and-time
         +--ro last-change?           yang:date-and-time
         +--ro operation-status?      status-types
         +--ro incoming
         |  +--ro incoming-interface?   if:interface-state-ref
         |  +--ro incoming-label
         +--ro outgoing
         |  +--ro outgoing-interface?   if:interface-state-ref
         |  +--ro outgoing-label
         +--ro primary-lsp*           lsp-ref
         +--ro backup-lsp*            lsp-ref
         +--ro statistics
```

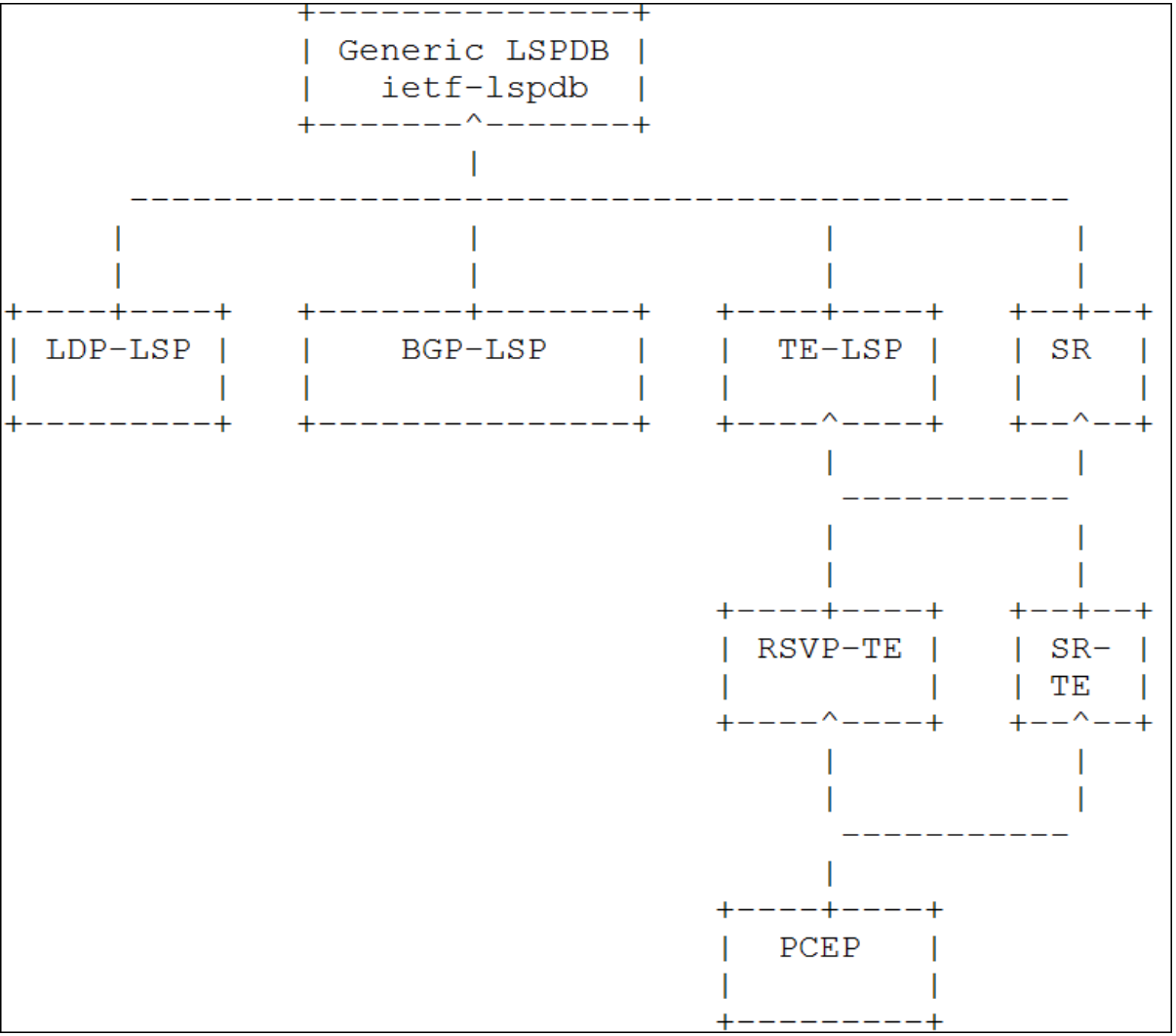
Discussion Points

- ✓ Data Plane only (cross-connect) v/s Generic LSP operational state model that should be augmented by others
  - ❖ There is a value in an protocol agnostic view of data plane.
  - ❖ Should all protocol model the LSP state independently?

- ✓ Where does this belong?
  - ❖ Consolidated MPLS Model? Somewhere else?

- ✓ Specific Points
  - ❖ Generic ID (system-generated-id) mapping to protocol specific ID in augmented modules
  - ❖ Can the protection relationship be modeled in a generic way?
  - ❖ Can the distinctive characteristics of technology specific LSPs be modeled by augmenting the generic model?

Proposal, as in the I-D.



- SHOULD not be directly used as a stand-alone data model
- Augmented by protocol/mechanism specific implementations

Discussions

- Comments?