Network Topology model draft-clemm-i2rs-yang-network-topo-00.txt

Jan Medved, <u>jmedved@cisco.com</u>
Nitin Bahadur, <u>nitinb@juniper.net</u>
Alexander Clemm, <u>alex@cisco.com</u>
Hariharan Ananthakrishnan, <u>hanantha@juniper.net</u>
Tony Tkacik, <u>ttkacik@cisco.com</u>
Robert Varga, <u>rovarga@cisco.com</u>

Purpose

- Data model for network topologies
- Generic topology model, extensions for specific topologies
 - L3 Unicast IGP, OSPF, IS-IS as part of this draft
 - Can be extended for other topologies
- Specified using YANG
- Applications
 - Data nodes capture and reconcile their understanding of network topology, propagate topology info
 - Network controllers represent controller network topology

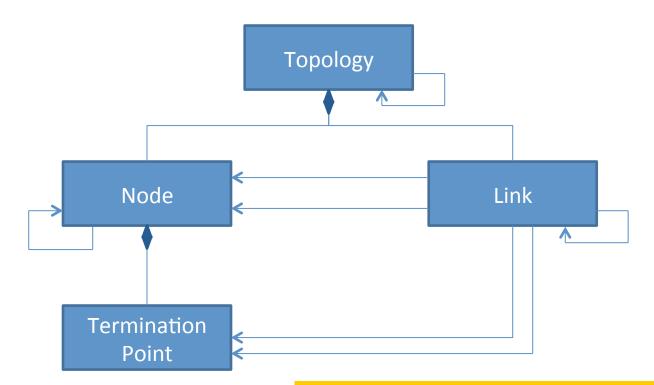
Adoption

- Implementation shipping in OpenDaylight since February
 - Export of topology gleaned from BGP/LS
 - Export of LERs attached via PCEP
- ODL-private extension for PCEP
- Proposed to become one of the core ODL models

Next steps

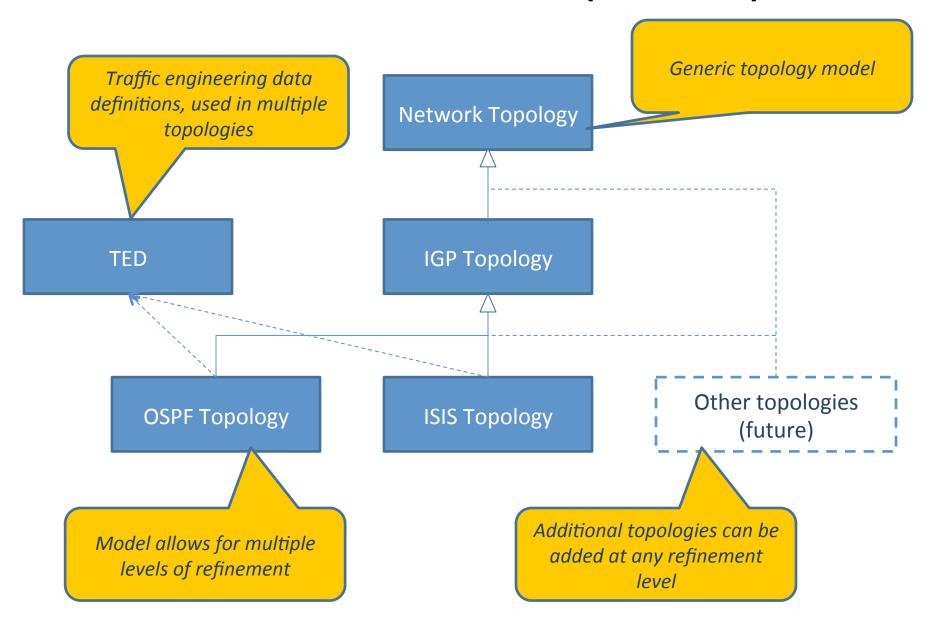
- Re-issue the draft
- Split the L3-specific models into separate draft
- Do we need a separate information model?

Model structure



- Links connect nodes, are terminated by termination points
- Topologies can refer to underlay topologies
- Links can refer to underlay links
- Nodes can refer to underlay nodes
- Unidirectional, point-to-point links
 represent non-ptp through hierarchies of nodes links

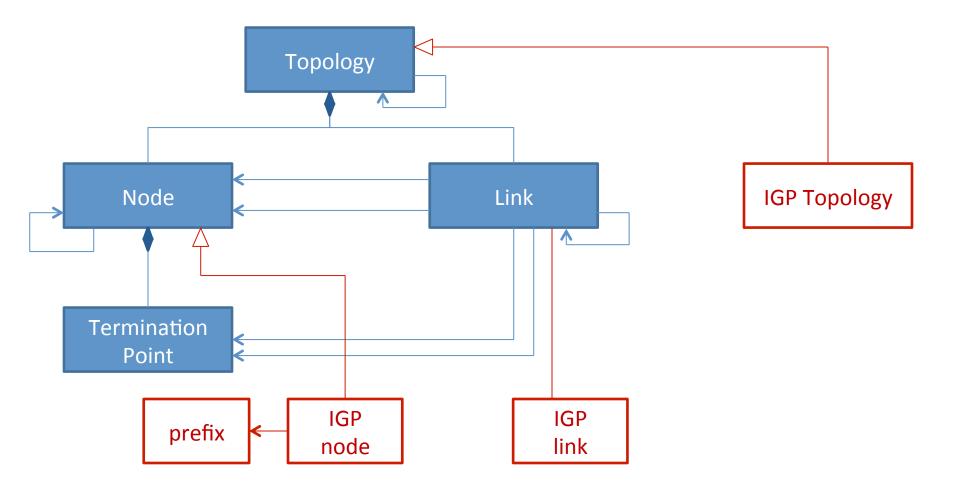
Model structure (contd.)



Questions?

Backup

Model structure (contd.)



- Derive IGP topology model elements
- Integrity rules ensure links, nodes, topology of matching type

Model structure (contd.)

