

OSPF Extensions for MPLS Green Traffic Engineering draft-li-ospf-ext-green-te-01

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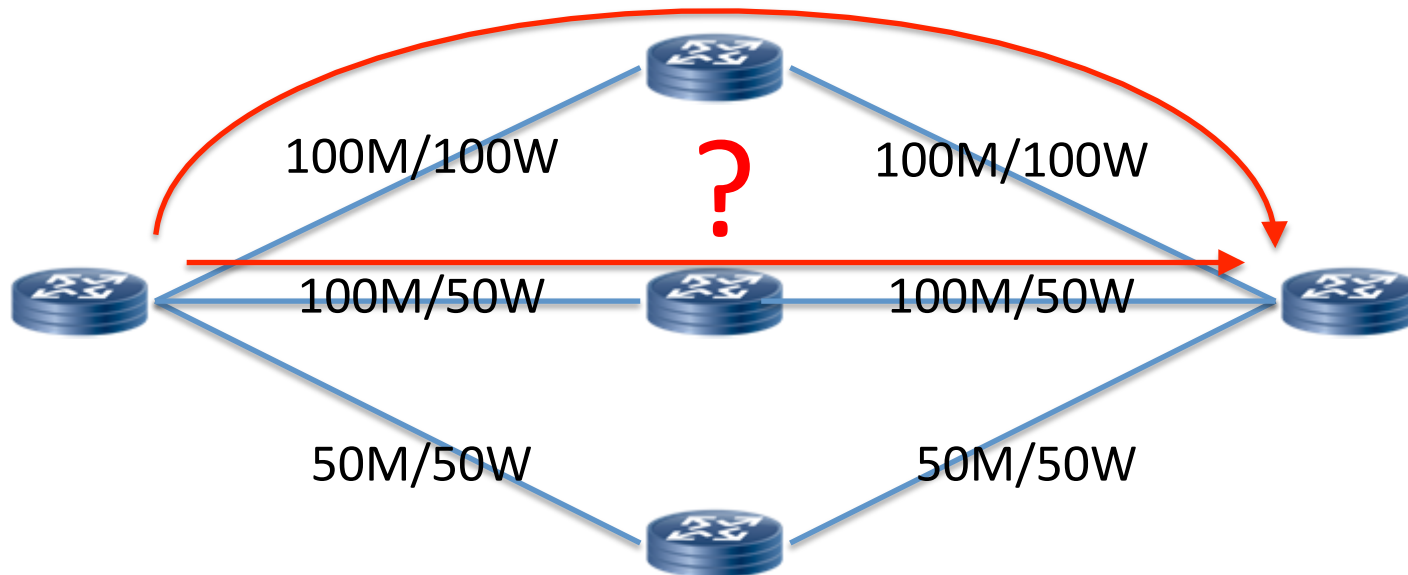
IETF 88, Vancouver, BC, Canada

Introduction

- draft-li-ospf-ext-green-te-00 has been proposed in IETF 86.
- The architecture of Central Controlled IGP has been proposed in [I-D.li-rtgwg-cc-igp-arch-00].
- Energy Saving can be a useful usecase for Central Controlled IGP.

MPLS TE vs. MPLS Green TE

- MPLS TE is used to optimize the efficiency of network.
 - ✓ More constraints are included: Bandwidth, Color, TE Metric, SRLG.....
 - ✓ CSPF will calculate the path at first. Then RSVP-TE will make the tunnel.
- Does CSPF also consider the energy consumption of each link in the network? → MPLS Green TE



Centralized MPLS Green TE

- IGP-based Central Controlled framework can be used for MPLS Green TE:
 - ✓ IGP controller collects energy consumption info through IGP extensions.
 - ✓ Reasonable energy-saving path computation based on complete topology information and state information of the whole network.
 - ✓ Ordered Traffic Switch to energy-saving path by Central Controller.

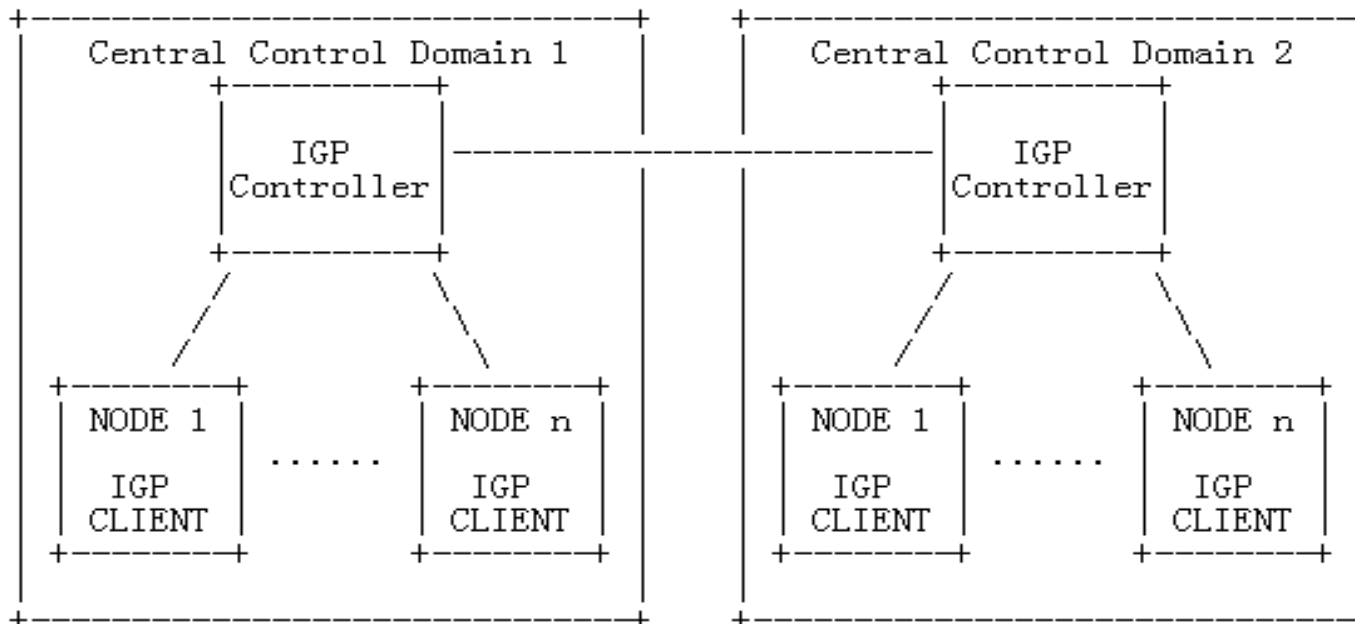


Figure 1: An Architecture of Central Controlled IGP

Next Steps

- Algorithm research on energy-saving path computation and traffic switch.
- Solicit comments and feedback on the draft.
- Revise the draft.