BGP-LS Extensions for PCE Discovery

draft-dong-pce-discovery,proto-bgp-05

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Motivation

• PCCs & PCEs need to automatically discover the address and characteristic of PCEs
• IGP based PCE discovery is not applicable when PCEs do not participate in IGP directly
  • Cooperative Inter-domain path computation
  • Hierarchical PCEs
  • Using BGP-LS for routing information collection
  • PCE for VPN path computation
• When BGP-LS is used for routing information distribution to PCE, the same BGP sessions can be re-used for PCE discovery
Solution Overview

- PCE discovery info is provided to BGP speakers
- BGP distributes the PCE discovery info according to policy
Updates in -04

• Improve the description of BGP based discovery use cases

• Clarify the Protocol-ID value for PCE discovery NLRI

• Improve the operational considerations

• Editorial changes
Updates in -05

• Added the use case of PCE discovery for VPN
• Specify the AFI/SAFI value for both the public and VPN cases
• New coauthors and contributors from KDDI
PCE Discovery for VPN Use Case

- PCCs in one VPN site needs to discover the PCEs located in other sites for CE-to-CE path computation.
Conclusions

• BGP-LS based PCE discovery is useful in many use cases

• Operators interested and get involved

• Draft is getting stable

• Ready for WG adoption?
Thank You