

# **PCEP Procedures for Hierarchical Label Switched Paths**

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# Context

Hierarchies in TE networks is a well established concept for scalability, Traffic Engineering and boundary management.

- RSVP-TE supports it with RFC6107.
- Data-planes are naturally hierarchical.

# PCE Controlled H-LSP

- Private Link H-LSPs should be discovered for Traffic Engineering
- A PCE, with its global view, is a good place to compute optimal Hierarchies
- Control of private H-LPS allows for less disruptive use of Hierarchies

# What is addressed by this draft

- Stateless control of H-LSP (RFC6107)
- Stateful control of H-LSP (RFC6107)
- PCEP Extensions and procedures

# PCEP Extensions

- Uses of LSP\_TUNNEL\_INTERFACE\_ID from RFC6107: Covers all the required information for H-LSP
- What differs in PCEP
  - Reporting of forward and reverse objects

# Extensions

A PCE may suggest IDs:

- The ID remains under PCC control
- A PCE can indicate that the H-LSP can be bundled to a particular TE-Link
- A PCE may help troubleshooting numbered FAs problems

# Next Steps

- Describe the impact on the protocol
- Integrate Comments