PCEP extensions for Circuit Style Policies

draft-sidor-pce-circuit-style-pcep-extensions

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Motivation

• Circuit Style Segment-Routing Policy  
  • Designed to satisfy requirements for connection-oriented transport services  
  • Details described in draft-schmutzer-spring-cs-sr-policy

• PCC to convey information about:  
  • Desired path persistency  
  • Allowed hop types in the path-computation – strict or loose

• PCEP extensions introduced in this draft are reusable
Path persistency

• New TLV in LSPA object to block path re-computation
• If TLV is included
  • PCE MUST NOT re-compute if current path is valid
  • It is allowed to trigger path computation explicitly on PCE
• P-flag
  • PCE MUST NOT re-compute even if current path is invalidated
• F-flag
  • All re-computation for that LSP are blocked
Strict path

• Stateless PCEP
  • Existing O-flag in RP object clarified for Segment-routing

• Stateful PCEP
  • New O-flag in LSP-EXTENDED-FLAG TLV
  • Allow strict hops only if flag is set
  • Loose path is acceptable if:
    • TLV is not included
    • O-flag is not set

• Segment-routing
  • If flag is set
    • Only SIDs, which will use explicitly specified adjacencies
    • Adjacency SIDs allowed, Prefix SIDs disallowed
Next steps

• Comments and discussion are welcome
• WG adoption