PCEP extensions for Circuit Style Policies

draft-ietf-pce-circuit-style-pcep-extensions
Motivation

• Circuit Style Segment-Routing Policy
  • Designed to satisfy requirements for connection-oriented transport services
  • Details described in draft-ietf-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 and Path Setup Type agnostic
PCEP extensions

• Path persistency
  • New “PATH-RECOMPUTATION TLV” in LSPA object
  • Flags to control path computation behavior 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 enforcement
  • Stateless PCEP
    • Existing O-flag in RP object clarified for Segment-routing
  • Stateful PCEP
    • New O-flag in LSP-EXTENDED-FLAG TLV
    • Only strict hops allowed if flag is set

• Capabilities
  • New flags in STATEFUL-PCE-CAPABILITY
Changes since IETF 116

• The draft was adopted by WG
• Introduced capabilities to advertise support for PCEP extensions
• Clarified processing of PATH-RECOMPUTATION TLV
• Added Manageability Considerations and Security Considerations sections
• Early codepoints allocation was done
• Addressed multiple minor comments
Next steps

• Comments and discussion are welcome
• Implementations from other vendors