PCEP Extensions for SID Verification for SR-MPLS

draft-chen-pce-sr-mpls-sid-verification-01

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Motivation

- draft-ietf-spring-segment-routing-policy describes the "SID verification" bit usage. SID verification is performed when the headend is explicitly requested to verify SID(s) by the controller via the signaling protocol used. Implementations MAY provide a local configuration option to enable verification on a global or per policy or per candidate path basis.

- RFC8664 specifies extensions to the PCEP that allow a stateful PCE to compute and initiate TE paths, as well as a Path Computation Client (PCC) to request a path subject to certain constraints and optimization criteria in SR networks.

- This document updates RFC8664 to clarify usage of "SID verification" bit signaled in Path Computation Element Protocol (PCEP), and this document proposes to define a new flag for indicating the headend is explicitly requested to verify SID(s) by the PCE.
SID verification flag (V-Flag)

- Extended V-Flag in SR-ERO Subobject for indicating the PCC is explicitly requested to verify SID(s) by the PCE.

```
+---------------------------------------------|
| L  Type=36 | Length | NT | Flags [V|F|S|C|M]| |
|---------------------------------------------|
| SID (optional)                              |
```

- Extended V-Flag in SR-RRO Subobject
  - The format of the SR-RRO subobject is the same as that of the SR-ERO subobject, but without the L-Flag, per RFC8664.
  - The V flag has no meaning in the SR-RRO and is ignored on receipt at the PCE.
Next Step

• Request review and feedback from WG
Thanks!