



IETF 110 – Online
PCE Working Group

PCEP Extensions for Signaling Multipath Information

M. Koldychev – Cisco Systems (mkoldych@cisco.com) – Presenter
M. Sivabalan – Ciena Corporation (ssivabal@ciena.com)
T. Saad – Juniper Networks (tsaad@juniper.net)
V. Beeram – Juniper Networks (vbeeram@juniper.net)
H. Bidgoli – Nokia (Hooman.Bidgoli@Nokia.com)
S. Peng – Huawei Technologies (pengshuping@Huawei.com)
B. Yadav – Ciena (byadav@ciena.com)

Recent updates

Version-03 and Version-04

- Editorial changes

Version-05

- Composite candidate path signaling

Composite Candidate Path

Composite Candidate Path, introduced in [draft-ietf-spring-segment-routing-policy-09], allows an SR Policy Candidate Path to ECMP/UCMP traffic to other SR Policies on the same headend.

Example of Composite Candidate Path and Explicit Candidate Path:

```
SR policy POL100 <headend = H1, color = 100, endpoint = E1>
  Candidate-path CP200 <protocol-origin = 20, originator = 100:1.1.1.1, discriminator = 1>
    Preference 200
    Weight W1, SR policy <color = 1>
    Weight W2, SR policy <color = 2>
  Candidate-path CP100 <protocol-origin = 20, originator = 100:1.1.1.1, discriminator = 2>
    Preference 100
    Weight W1, SID-List1 <SID11...SID1i>
    Weight W2, SID-List2 <SID21...SID2j>
```

Example

SR policy POL100 <headend = H1, color = 100, endpoint = E1>

Candidate-path CP200 <protocol-origin = 20, originator = 100:1.1.1.1, discriminator = 1>

Preference 200

Weight W1, **SR policy** <color = 1>

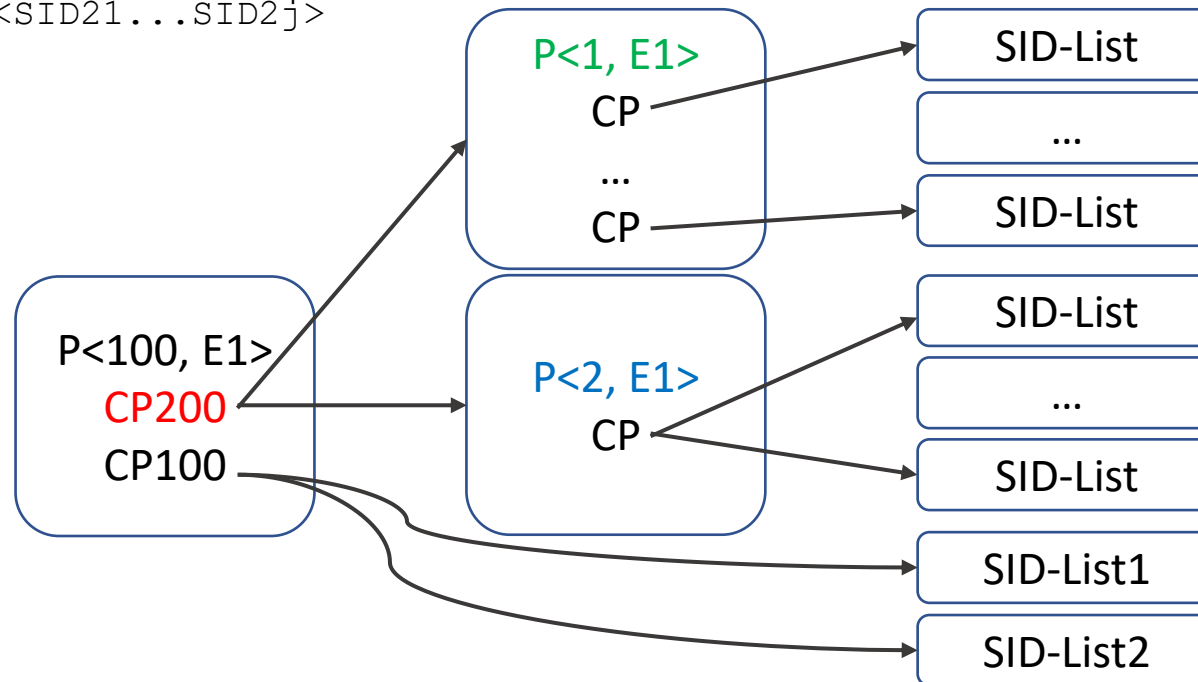
Weight W2, **SR policy** <color = 2>

Candidate-path CP100 <protocol-origin = 20, originator = 100:1.1.1.1, discriminator = 2>

Preference 100

Weight W1, SID-List1 <SID11...SID1i>

Weight W2, SID-List2 <SID21...SID2j>



PCEP Extensions

Composite Candidate Path can be signaled by putting **COLOR TLV** [I-D.peng-pce-te-constraints] into the PATH-ATTRIB object and sending an empty SR-ERO object.

```
<LSP>  
<ASSOCIATION Type=SRPOLICY>  
<PATH-ATTRIB <WEIGHT-TLV Weight=W1> <COLOR-TLV Color=1>>  
<SR-ERO (empty)>  
<PATH-ATTRIB <WEIGHT-TLV Weight=W2> <COLOR-TLV Color=2>>  
<SR-ERO (empty)>
```

Next steps

- Wait for WG adoption
- Discuss