PCEP extensions for SRv6 Policy SID List Optimization

draft-all-pce-srv6-policy-sid-list-optimization-03

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IETF124 PCE WG

Draft History

- The draft was presented in IETF121, 122 and 123
- Need for a Spring document was raised during IETF-122
  - Authors wrote draft-ali-spring-srv6-policy-sid-list-optimization and have presented it at IETF123, 124
  - There is an ongoing adoption call for the draft

Summary of Changes

- Minor changes
  - Alignment with Spring draft (draft-ali-spring-srv6-policy-sid-list-optimization)
  - Reference updated
- No outstanding comments known to the authors
- Draft has been stable
  - No changes to usage and container of the flag used to control installation of the final node SID since IETF121

Next Steps

- Authors would like to request WG adoption of the draft

MSD Consideration in PCEP

draft-ali-pce-sr-policy-msd-consideration-00

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Problem Statement

- The number of SIDs in an SR-TE path computed by the PCE on behalf of a PCC is dictated by the MSD value at the PCC
- [RFC8664] mandates that once an SR-capable PCEP session is established with a non-zero MSD value, the corresponding PCE MUST NOT send SR-TE paths with a number of SIDs exceeding that MSD value
- When an adjacency SID is the first SID in an SR Policy SID list, the top adjacency SID is not imposed on the packet
  - In this case, the PCE does not have to include the first SID in the MSD consideration

Summary of Changes

- The draft specifies a procedure for optimizing the number of SIDs in an SR-TE path that PCE can compute when the first SID in the SR Policy SID list is an adjacency SID.
- The procedure applies to the SR-MPLS data plane and SRv6 data plane.
- The procedure is backward compatible with [RFC8664].

Overview of PCEP Changes

- New flag in SR-PCE-CAPABILITY <u>and</u> SRv6-PCE-CAPABILITY sub-TLV
  - A-flag (Adjacency SID exclusion for MSD consideration flag) is proposed
  - If set to 1, it indicates support for the A-flag by the PCEP peer

Procedures

- The procedure MUST only be applied if both the PCE and PCC have advertised support for the capability by setting the A-flag in their respective SR-PCE-CAPABILITY sub-TLV [[RFC8664]] or SRv6-PCE-CAPABILITY sub-TLVs [[RFC9603]]
  - The procedure is Backward compatibility
- Under these conditions, if the first SID in an SR-TE path is an adjacency SID, the PCE MUST NOT send SR-TE paths with a number of SIDs exceeding that (MSD+1) value

Next Steps

- The authors would like to request WG adoption