

PCEP Extensions for Establishing Relationships Between Sets of LSPs and Virtual Networks (VN)

[draft-leedhody-pce-vn-association-05](#)

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ACTN VN Association

- Last presented in IETF 98 (-02 version)
- Associating a set of LSPs with a VN "construct" to facilitate VN operations via PCEP
- Using ASSOCIATION object [I-D.ietf-pce-association-group]
 - Associates a set of LSPs created/used for a particular VN.
 - A new Association Type - VN Association Type
 - Two TLVs
 - VIRTUAL-NETWORK-TLV
 - VENDOR-INFORMATION-TLV

VN Association - Changes since -02

Alignment with ACTN framework changes

Alignment with Association group changes

- Capability advertisement
- Dynamic Association procedures

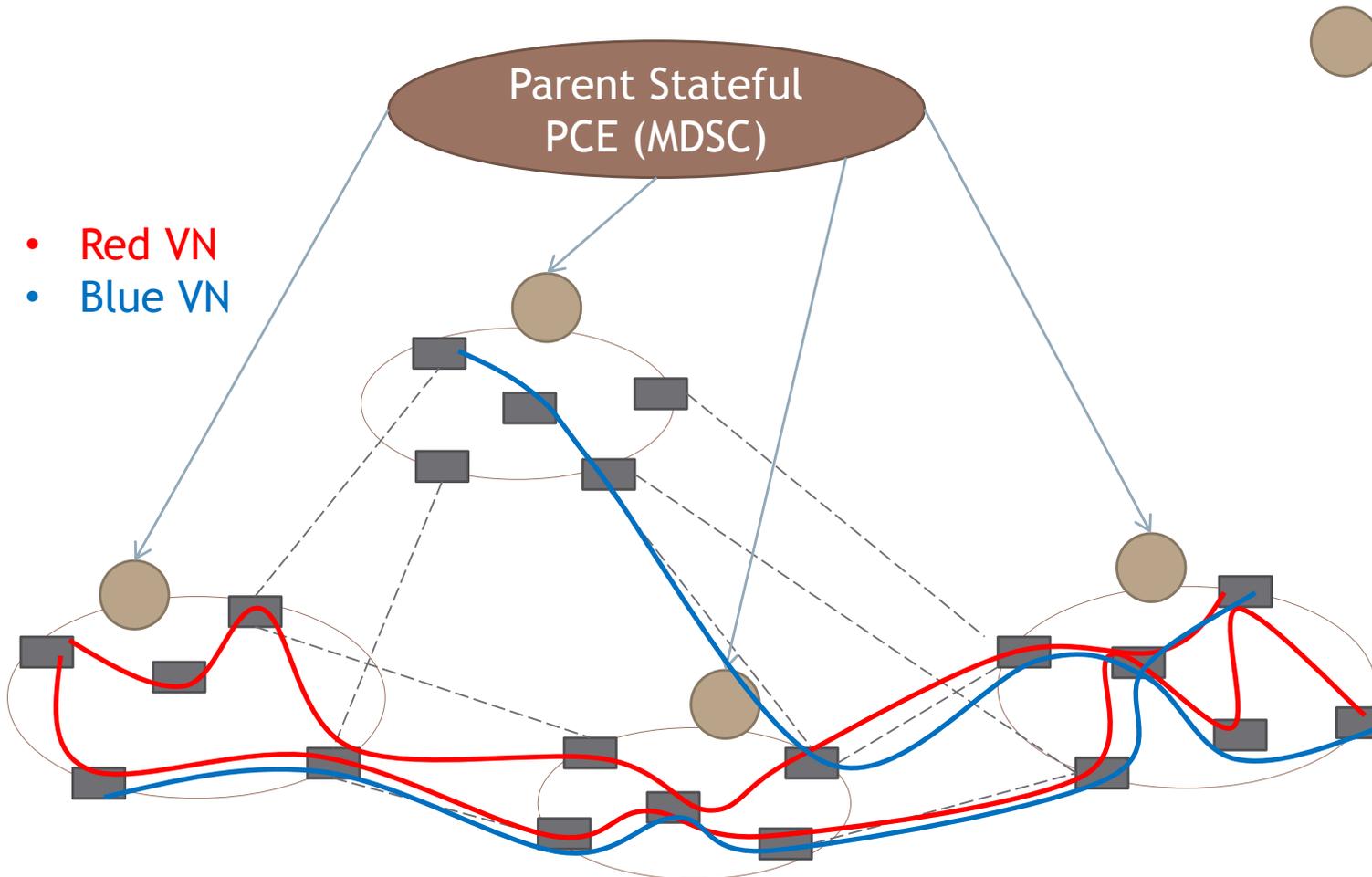
Others

- Detail specification for the VIRTUAL-NETWORK-TLV
- IANA Considerations

VN Association - Why?

- This ‘association’ allows the child/parent PCEs to identify which LSPs belong to a certain VN.
- Does child PCE (acting as PNC) needs to be aware of this association?
 - Child PCE are responsible for per-domain LSPs; Child PCE of ingress domain may also be responsible for E2E LSPs.
 - Child PCE is made aware of the association between the partial set of LSPs under its preview.
 - Parent PCE is aware of association between full set of LSPs under the VN.
- The child/parent PCE could then use this association to optimize these LSPs (belonging to a VN) together and taking into consideration the impact on the other LSPs
- The child/parent PCE could further take VN specific actions on the LSPs such as relaxation of constraints, policy actions, setting default behavior, as per the local policy identified for a VN.
 - As compared to doing this per LSP

VN Association



Child Stateful PCE (PNC)

- The VN Association help to find the per-domain LSPs (or E2E) that belong to the same VN.
- During re-optimization, this relationship is factored in during path computation
- Local Policy can be set per VN (rather than individually for each LSP)

Next Step

- The document is stable and aligned to other documents in PCE/TEAS WG.
- The association object is the right approach in PCEP.
- Ready for WG Adoption poll!

thank you