EVPN Path Attribute Propagation
draft-rs-bess-evpn-attr-prop-00

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Introduction and problem statement
What and Why

EVPN supports the advertisement of ipv4 and ipv6 prefixes in:

- Route Type 2 – MAC/IP route (only for /32 and /128 host routes)
- Route Type 5 – IP Prefix route

EVPN tenant domains are extended to the WAN and other admin domains using other SAFIs:

- e.g. EVPN RT2/RT5 routes ␣ SAFI-128 routes

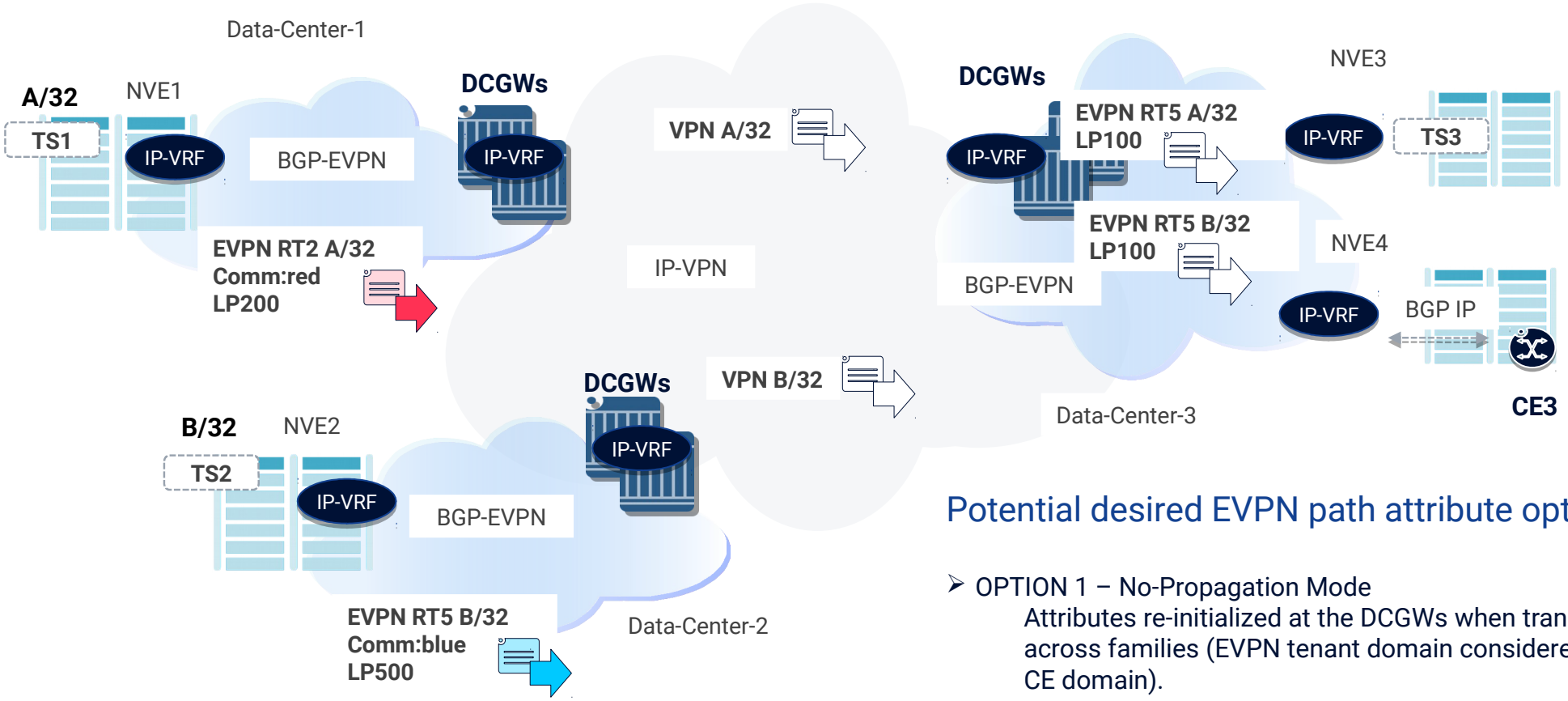
There is a need to define the interaction between EVPN RT2/RT5 routes and other SAFIs used to extend the tenant domain.

Rev 00 is mostly a rough description of some identified use-cases and some potential solutions.

WG feedback is key for this work to progress

EVPN tenant domains interconnected via different admin domain

IP Prefix originated and received in the same family



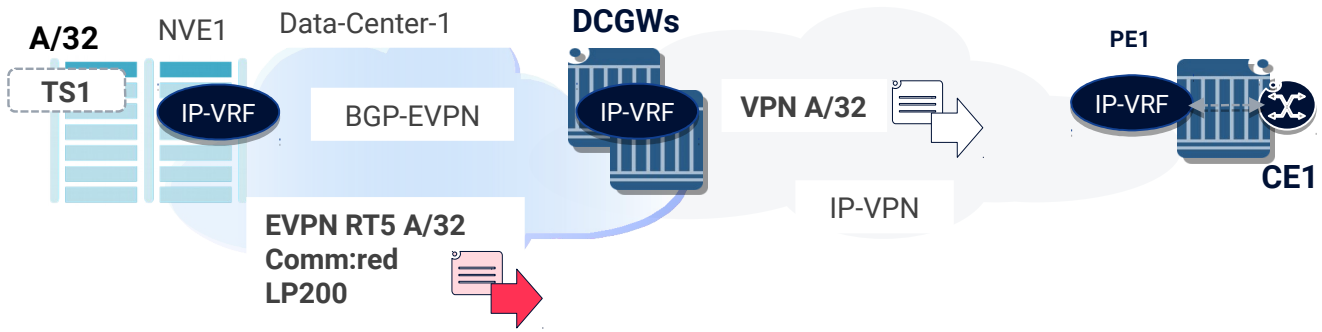
Potential desired EVPN path attribute options

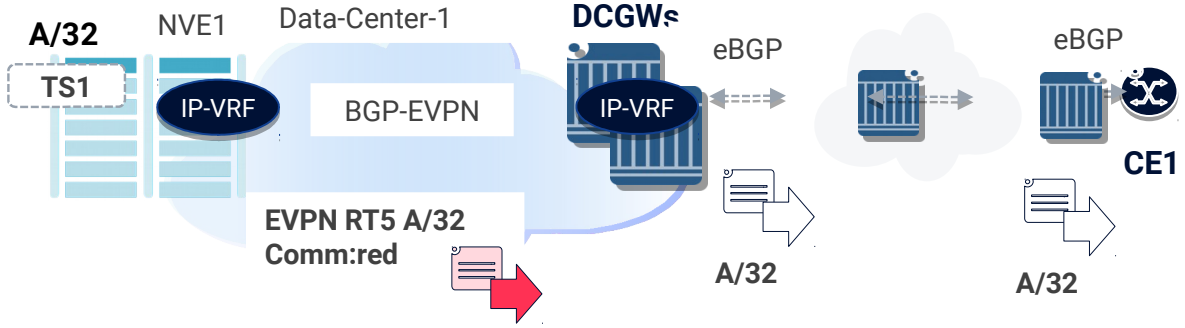
- OPTION 1 – No-Propagation Mode
  Attributes re-initialized at the DCGWs when translation happens across families (EVPN tenant domain considered as an abstract CE domain).

- OPTION 2 – Tunnel-Mode
  Attributes tunneled by the DCGWs so that the original path attributes are not lost for the receiving NVE's calculations

EVPN tenant domains connected to other tenant domains

IP Prefix originated and received in a different family





Potential desired EVPN path attribute options

- OPTION 1 – No-Propagation Mode
  Attributes re-initialized at the DCGWs (EVPN tenant domain considered as an abstract CE domain).
- OPTION 2 – Propagation Uniform-Mode
  A subset of attributes (commonly used across the families) are propagated/mapped

Open discussion – topics to cover

(Thanks to E. Rosen for initial feedback)

- General architectural models
- Same/different RD/RTs per family
- Propagation Tunnel-Mode – how? (RFC6368-based tunneling is an option)
- Propagation Uniform-Mode – what attributes?
- Aggregation of host routes and attribute propagation
- Path Selection across EVPN and IPVPN
- Other use-cases
- Etc.

Next steps

The authors request WG Feedback

Thank you