AF Specific RT Constrain

draft-keyur-bgp-af-specific-rt-constrain-00

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Motivation

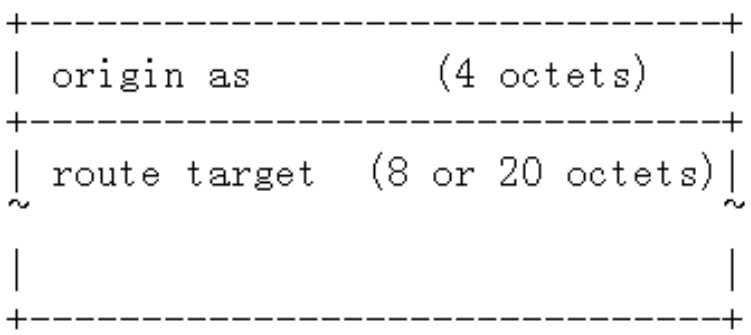
- Current RT Constrain mechanism defined in RFC4684 mandates that RT prefixes exchanged using a RT Constrain SAFI are applied towards filtering of all VPN AFI/SAFIs
  - Could be suboptimal in cases where operators what to configure address family specific RTs
- Current RT Constrain mechanism supports prefixes with maximum length of 12 bytes
  - Need to extend the prefix length to 24 bytes to support IPv6 RT defined in RFC5701
- Address these issues with and yet be backwards compatible with RFC4684

AF specific RT Constrain Capabilities

- Two new AF specific RT Constrain Capabilities defined
  - IPv6 RT Constrain Capability with an AFI/SAFI value = 2/132
  - L2VPN RT Constrain Capability with an AFI/SAFI value = 25/132
- RT prefixes exchanged under these RT Constrain AFI/SAFIs are used towards the filtering of an appropriate VPN address family (i.e IPv6 RT Constrain Capability for VPNv6 address family)
- VPN AFI/SAFIs that do not exchange RT prefixes using separate AF specific RT Constrain AFI/SAFI uses RT prefixes of default RT Constrain AFI/SAFI of 1/132

Extended Prefix RT Constrain Capability

- New capability used to exchange longer length prefixes up to 24 bytes
  - Covers IPv6 RT defined in RFC5701
- Separate capability for each RT Constrain VPN AF
- Fixed length prefixes of 4 bytes, 12 bytes, and 24 bytes exchanged



Questions?