Prefix Dissemination for Semi-Automatic Addressing and Renumbering

draft-lamparter-lsr-v6ops-pd-aargh[-00]

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2023-11-06 · IETF 118, Prague
Target use case

Hole left between enterprise users (own IPv6 space) and SOHO (only 1 router, or hierarchical PD)

These are frequently IPv4-only setups for now.
What is this?

- Routers at network edge dynamically pick up IPv6 prefix assignment (e.g. from DHCPv6-PD)
- Stick that in an LSA/TLV
- Have other devices set up addressing off this
- \# LSAs/TLVs \(\propto\) \# uplink connections
- **NOT** autonomous addr, just dynamic prefix
Prefix delegation (e.g. DHCPv6-PD)

border router

TLV/LSA: prefix = X::/Y

router A

X:A::1/64
X:B::2/64

local config
dynamic

router B

router C

IS-IS / OSPF domain
Is this routing information?

Well... no addresses = no routing?

Do need this information to bootstrap

A blackhole route will (or: should) generally exist in the same place to avoid loops
Y/N?

Right now: only trying to determine whether carrying this in OSPF & IS-IS is reasonable.