

# draft-ietf-pim-ipv4-prefix-over-ipv6- nh

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# Problem Statement

- Multicast routing needs a RPF tree to be formed in order to receive one copy of multicast data on lowest-cost, loop-free path.
- In case of PIMv4, it needs a valid PIMv4 neighbor to send PIMv4 join.
- When using RFC5549, a IPv4 prefix is reachable over IPv6 Next-hop [or vice-versa].
- If RPF-interface has more than 1 PIMv4 neighbor, then a new pim mechanism is needed to choose corresponding neighbor for IPv6 next-hop.

# Solution

Use of secondary address list option in PIM hello

As described in RFC 7761 section 4.3.4.

IPv6 addresses are included in PIMv4 hello as secondary list and stored in neighbor cache.

Downstream router look for IPv6 next-hop address in its local PIMv4 nbr cache.

If found, it sends sends join to chosen PIM nbr.

The option is used as specified in 7761, but no one thought of using it across address families.

# Status

- Solution implemented and deployed
- No changes the last 2 IETFs
  - We are happy with the content and no new input from the WG
- Ready for WGLC?