Transition Requirements for IPv6 Customer Edge Routers

<draft-palet-v6ops-rfc7084-bis-transition-01>

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History

- IETF98, Chicago, draft-ietf-v6ops-rfc7084-bis was accepted as WG item
  - Included RFC7084+new transition+HNCP
- 4 versions before IETF99, Prague
  - Push back from the WG
- In Prague presented several choices
  - No clear consensus

Decision

- Informal talk with several v6ops participants and one of the RFC7084 co-authors
- Don’t change RFC7084
- Seek consensus for a complementary document to RFC7084 only for the transition part

Reality Check

- Actual market situation still needs IPv4 in the LANs
- This will be the case for at least 3-5 years
- No way an ISP delivers IPv6-only service in the LANs
- So, CEs need IPv4 support
  - and for that transition support
  - “newer transition mechanisms” aren’t part of RFC7084
  - vendors don’t support those, in general
    - Want to have it in an RFC
    - Want to support that RFC in IPv6 Ready Logo certification

IPv6 CE Vendors Panel

IPv6 CE Vendors Panel

- September 2017, Taichung (Taiwan), APNIC44
  - D-Link - Hans Liu (D. of Strategic Technology)
  - NEC - Masanobu Kawashima (Assist. Mgr., P. Planning)
  - Zyxel (Senior Programmer)

- In short: The issue is the IETF
  - Lack of support in RFC7084, which is used for certification

- https://blog.apnic.net/2017/11/09/ce-vendors-share-thoughts-ipv6-support/

Summary of the Document

- Nothing new compared with what was adopted as WG, but in a split document
  - An IPv6 Transition CE must comply with RFC7084

AND

  - Support a few new transition mechanisms (464XLAT, lw4o6, MAP-E, MAP-T and 6in4) and:
    - RFC7608 (IPv6 Prefix Length Recommendation for Forwarding)
    - RFC5625 (DNS Proxy Implementation Guidelines)
    - RFC8114 (Delivery of IPv4 Multicast Services to IPv4 Clients over an IPv6 Multicast Network)
    - RFC8115 (DHCPv6 Option for IPv4-Embedded Multicast and Unicast IPv6 Prefixes)

Goal

- Make sure operators (even small ones), have the right support from vendors to deploy new mechanisms, which in many cases (no more IPv4 addresses) will make more sense than, for example, 6RD.

- Support the vendors in having this documented so they can apply for a certification.

Next steps

- Questions ?
- Become a WG item ?
- Inputs ?