

Basic Requirements for IPv6 Customer Edge Routers

<draft-ietf-v6ops-rfc7084-bis-04>

<draft-palet-v6ops-rfc7084-bis2-00>

<draft-palet-v6ops-rfc7084-bis4-hncp-00>

<draft-palet-v6ops-rfc7084-bis-transition-00>

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draft-ietf-v6ops-rfc7084-bis-04

- Integrated support for:
 - IPv6-only CE
 - **HNCP** (automated provisioning of downstream routers)
 - IPv4 in dual-stack WAN
 - IPv4 in the LAN(s)
 - **Transition support**
 - IPv4 "as a service"
 - IPv6 "as a service"
- **Usage scenarios**
- **Architecture:**
 - Actual IPv4 end-user
 - IPv6 end-user
- **Support of IPv4 multicast "continuity" in LANs (IPTV)**

Original RFC7084: 21 pages

Actual -bis-04: 31 pages

Legend

Black -> Existing text – updated

Orange -> Existing text – updated + new text

Red -> New text

Open Issues

- L-12: The IPv6 CE router SHOULD implement a DNS proxy as described in [RFC5625]
- ?

One or several documents? (1)

- We had this discussion in Chicago (IETF98)
- The WG agreed a single one AND
 - it was adopted as a WG document by overwhelming consensus
- After 5 versions a couple of participants complain ...
- 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

One or several documents? (2)

1. Actual document (as in RFC7084) including IPv4 transition support if IPv4 is required.

or

2. IPv6-only router document (somehow downgrade RFC7084 to RFC6204) + new IPv4 transition support document for CEs

Choices (1)

1. Minimum Requirements for IPv6-only Customer Edge Routers (draft-palet-v6ops-rfc7084-bis2-00)
 - RFC7084 – IPv4 – transition support
 - CE needed in a few years from now (very simple networks):
 - no downstream routers (HNCP)
 - Example: IoT IPv6-only networks
2. Basic Requirements for IPv6 Customer Edge Routers with HNCP (draft-palet-v6ops-rfc7084-bis4-hncp-00)
 - RFC7084 + HNCP – transition support
 - CE needed in a few years from now for end-user networks
 - IPv6-only LAN & WAN
 - Possible downstream routers (HNCP)

Choices (2)

3. Other choices

- For example:
 - Option 1+2 (previous slide) but differentiate both cases in the same document
 - RFC7084 – transition support

- Then, to support transition:
 - Transition Requirements for IPv6 Customer Edge Routers (draft-palet-v6ops-rfc7084-bis-transition-00)

Poll

- Q1: One or several documents?
- Q2: If several documents
 - Option 1: RFC7084 – IPv4 – transition support
 - Option 2: RFC7084 + HNCP – transition support
 - Option 3: Option 1+2 in a single document
 - Option 4: RFC7084 – transition support
 - Option 5: ?

Next steps

- What we want to do ?
- If split documents, become WG items ?
- Further inputs ?