rfc6204bis

IETF 83, Paris

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March 2012

Agenda

- Delta from Taipei to Paris IETF; 02 to 07.

- Known open DHCPv6 issues.

- Issues from LastCall.

- Recommendation for path forward.

Delta between -02 and -07

- Added:

- (a) PCP client to the WAN, (b) pd-exclude DHCPv6 option, (c) Minor fixes for rfc6204, (d) MAX_SOL_RT.

- Fixed L-13 due to Errata reported against RFC 6204.

- Tightened SNTP DHCPv6 option requirement.

Pending DHCPv6 issues since December 2011

- Some members of the DHC WG raised concerns about three RFC 6204 requirements:

W-5: DHCPv6 address assignment (IA_NA) and DHCPv6 prefix delegation (IA_PD) SHOULD be done as a single DHCPv6 session.   (Removed)

WPD-5: If the IPv6 CE router is configured to initiate DHCPv6 before receiving a Router Advertisement, it MUST also request an IA_NA option in DHCPv6. (Removed)

WPD-7: If the IPv6 CE router requests both an IA_NA and an IA_PD option in DHCPv6, it MUST accept an IA_PD option in DHCPv6 Advertise/Reply messages, even if the message does not contain any addresses, unless configured to only obtain its WAN IPv6 address via DHCPv6. (Working to resolve with DHC WG)

Open issues raised during WGLC

- Three addressing models supported:
  - Stateful DHCPv6
    - SLAAC
  - Unnumbered

- Open issues around:
  - making sure all addressing models are supported equally
  - selecting the addressing model
  - Guidance for transition technologies

Issues raised during LastCall…

- Concern was expressed about changing RFC6204 WAA-7 shown below:

- WAA-7: If the IPv6 CE router is unable to assign address(es) through SLAAC, it MAY do DHCPv6 address assignment (request an IA_NA option) even if the M flag is set to 0

- New text in Rfc6204bis-07 WAA-7:

- WAA-7: If the IPv6 CE router receives a Router Advertisement message (described in [RFC4861]) with the M flag set to 1, the IPv6 CE router MUST do DHCPv6 address assignment (request an IA_NA option).

- Changed to handle overly-aggressive DHCPv6 retry behavior

Other issues from LastCall

- One person expressed concern about the change from WPD-4 in RFC 6204 to WPD-5 in rfc6204bis.

- WPD-4: The IPv6 CE router MUST always initiate DHCPv6 prefix delegation, regardless of the M and O flags in a received Router Advertisement message.

- WPD-5: By default, the IPv6 CE router MUST initiate DHCPv6 prefix delegation when either the M or O flags are set to 1 in a received Router Advertisement message.

- This change was added to help ISPs control DHCPv6 behavior on their networks

New feature request from LastCall

- Request to incorporate requirements from `draft-townsley-troan-ipv6-ce-transitioning-02.`

  - Design team reluctant to add to rfc6204bis, as we agreed to only include RFCs or drafts in IESG review.

  - Ce-transitioning needs to gestate.

How do we move forward?

- Seeking community feedback on open issues

- Recommendation:
  - Advance 6204bis as-is, and resolve DHC issues with DHC WG during IESG review
  - Additional CE-transitioning and DHC requirements should wait for a subsequent draft and guidance from homenet/v4exit(?).

Thank you.