DHCPv6 Prefix Delegation for NEMO
draft-ietf-mext-nemo-pd-00

Ralph Droms

Pascal Thubert

Existing standard

- NEMO basic implicit prefix mode
  - The MNP is configured on both HA and MR
  - It is omitted in the BU

- NEMO basic explicit prefix mode
  - The MNP is configured on the MN only
  - It must be passed in every BU
  - The HA must check the MR's claim on the MNP

=> Missing the model where the MNP is configured at the HA only and the HA passes the information to the MR

Prefix Delegation for NEMO

- Benefits
  - Centralized Management
  - Easy Renumbering
  - No need to check the MR claims (explicit)
  - No unseen configuration error (implicit)
- Usages
  - Home Gateway (move without renumbering)
  - Mobile Gateway (post provisioning)

Discussion Issues

- WG accepted DHCPv6 PD as technology for prefix assigned to MR

- Mailing list discussion about accepting `draft-ietf-mext-nemo-pd-00` as a WG work item
  www.ietf.org/mail-archive/web/mext/current/msg01422.html

- WG accepted draft; several issues were raised during discussion

Security

- `draft-ietf-mext-nemo-pd-00` suggests use of DHCPv6 security

  – Requires shared keys

  – Uses md5

- Require MR-HA security (ESP?)

  – Interaction with DHCPv6 multicast?

- What are the security requirements?

Complexity

- Use of DHCPv6 PD requires a DHCPv6 client in the MR

- Is this too much complexity to implement in resource-constrained device?

  – WG consensus is to use DHCPv6 PD

  – DHCPv6 PD doesn't require complete DHCPv6 implementation

DHAAD

- `draft-ietf-mext-nemo-pd-00` suggests an extension to DHAAD for location of a HA that will provide DHCPv6 PD service

- Objections to DHAAD?

- Alternatives
  - DNS
  - Others?