Home Agent Configuration Option for DHCPv6 draft-yuchi-dhc-homeagent-option-00.txt

Yuzhi Ma (myz@huawei.com)

Background

- The basic idea in Mobile IP is to allow a home agent to work as a stationary proxy for a mobile node.

- In a Mobile IPv6 network having steady home links, home agents can be configured on a DHCPv6 server, then a mobile node can acquire its home agent addresses when it requests its home address from DHCPv6 server.

Home Agent Option for DHCPv6

- Home Agent Option

  The home agent option provides a list of one or more IPv6 addresses of a mobile node's home agent. The home agent addresses are listed in the order of preference for use by the mobile node.

Client behavior

- In a message sent by a mobile node (client) to a server, the option-len is set to 0 while the mobile node is on its home link. The option-len is set to 16 while the mobile node is away from home, and the option-data is set to the mobile node's home address.

- In a Mobile IPv6 network having steady home links, the mobile node can use the home agent address which have acquired before it is away from home.

Server behavior

- If the client's option-len is 0, the link prefix is used as the key for searching home agent lists. The DHCPv6 server SHOULD create the association of the home address with its home agent addresses.

- If the client's option-len is 16, the home address is used as the key for searching the above-mentioned association.

- Other Comments?

- What is the next step?

Appendix

- Format

```
 0                   1                   2                   3
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|    OPTION_HOMEAGENT      |      option-len                    |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                                                              |
|      option-data:home-agent-address1 (IPv6 address)         |
|       or home-address                                       |
|                                                              |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                                                              |
|      option-data:home-agent-address2 (IPv6 address)         |
|                                                              |
|                                                              |
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|                    ...                                       |
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```