Updating of Relay Agent Encapsulation for DHCPv4

IETF 81th

Mechanism

DHCP Server

Layer 3
DHCP Relay Agent

Layer 2
DHCP Relay Agent

DHCP Client
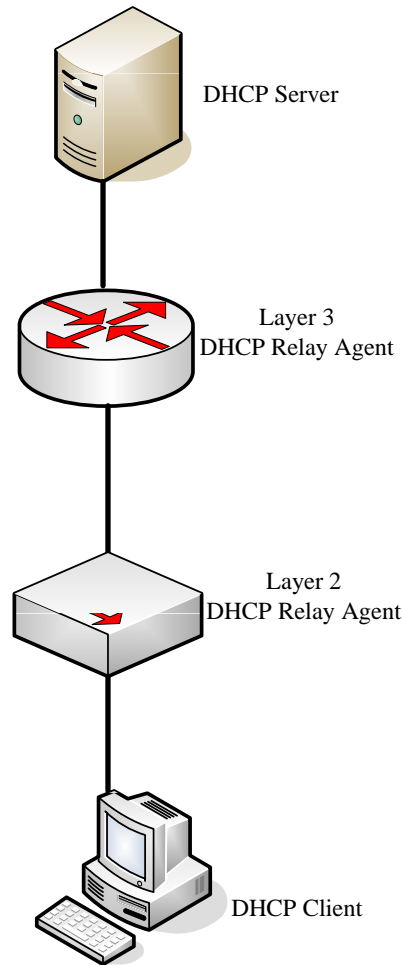
1. Client sends DHCP discovery

2. Layer 2 relay agent inserts a new option including it's own information and forwards the discovery packet

3. Layer 3 relay agent finds an existing option. So it adds it's own information to the option and forwards it

4. DHCP server handles the discovery packet as normal and carry out policies based on the agents' information. After that it sends a response packet containing the original option

5. Layer 2/3 relay agent can use the option to help forwarding and delete what they insert before sending out the response packet

6. Client receives DHCP response without additional option

Options

- Relax limit on option 82

- Add new option 82-like option

- Copy RFC3315-style encapsulation

Requirements

- Relay options from more than one relay

- Support for Layer 2 relay agents

- Support for legacy relay agents

Request comment

- Update 01 version, mostly wordings
- Please kindly help to review it.

- 1 question to the WG:

  Should we be looking at IP TTL when we create RELAYFORWARD or RELAYREPLY message?
  - I think we should copy TTL from the original message.
  - Duplication of hops field functionality

Thank You