Handling Unknown DHCPv6 Messages

draft-ietf-dhc-dhcpv6-unknown-msg-01

Y. Cui, Q. Sun, T. Lemon

IETF 87th@Berlin

Problem Statement

- RFC3315 is not specific about:

  - How the relay agent can determine to relay toward the server or the client

  - What the relay agent should do when receiving an unknown DHCPv6 message

  - What the client and server should do when receiving an unknown DHCPv6 message

Relay Agent Behavior Update

- A valid message to construct a new Relay-forward msg
  - RFC3315 doesn't define what a valid message is
  - Valid Message: if a relay agent receives the message, but the relay agent does not identify itself as the target of the message, and the message is not a Relay-Reply message.
- Relay messages according to the message type
  - Relay-forward: Toward the server
  - Relay-reply: Toward the client, regardless of the message type in Relay Message Option
  - Unknown types: Toward the server

Reasons for Definition of a Valid Message

- Any message received by a client or server is clearly not a candidate for forwarding.
- Any message received by the relay in response to a message it has sent to the server-e.g., a RECONFIGURE-REPLY message-is also not a candidate for forwarding.
- A standards-compliant DHCP server will never send a message to a relay other than in response to a message from a relay, so there should never be a case where a relay receives a message for which it is the intended recipient, but is not able to recognize that it is the intended recipient for the message.
- A Relay-Reply message is an encapsulation intended for the client or for a relay agent closer to the client. It specifies a destination, and hence is never to be encapsulated and sent back to the server.

Client/Server Behavior Update

- Client and Server MUST discard the messages with unknown types

Next Step

- Compliant to future extensions to DHCPv6
  - E.g. dhcpv4 over dhcpv6
  - …

- Minor issues
  - Usage of 'recipient' / 'intended recipient' may cause confusing (RESOLVED)
  - Explanations to the definition of 'a valid message'

- Last Call?