DHCPv4 option for PANA Authentication Agents

DHCP/PANA WG

IETF-63

France, Paris

The Protocol for carrying Authentication for Network Access (PANA)

- The PANA protocol is run between a PANA Client (PaC) and a PANA Authentication Agent (PAA) in order to perform authentication and authorization for the network access service.
- Pac need to know the PAA address to being with authentication process

PAA discovery – Possible ways

Existing

- Manual Configuration
- Multicast based

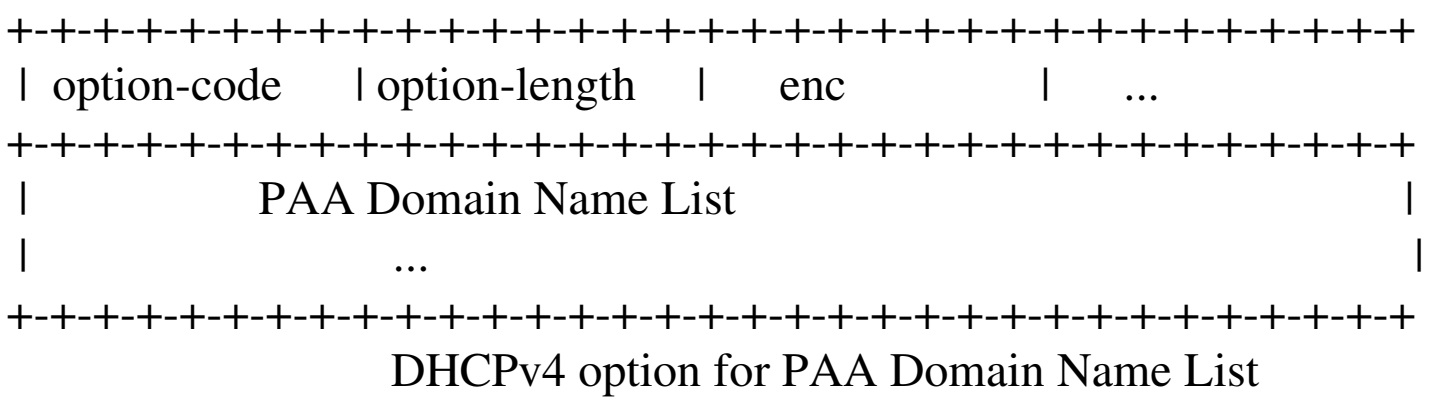
Proposed

- DHCP based

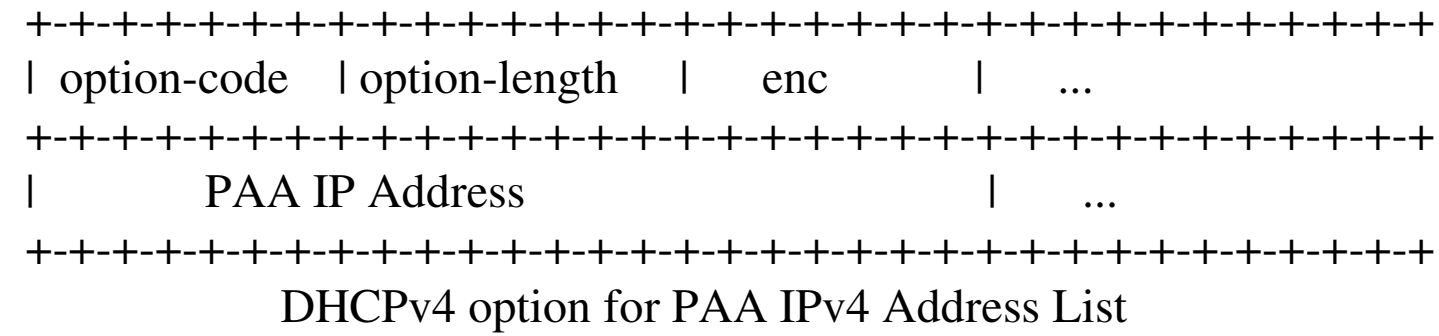
PANA Authentication Agent DHCPv4 Option

- A new DHCPv4 option that allows PANA client (PaC) to discover PANA Authentication Agents (PAA).
- It carries either a 32-bit (binary) IPv4 address list or, preferably, a domain name list.

Option Format



DHCPv4 option for PAA Domain Name List



DHCPv4 option for PAA IPv4 Address List

Operations

- The client requests PAA DHCPv4 Option in a Parameter Request List
- If a DHCPv4 server is configured with both PAA domain name list and PAA IP address list, the DHCPv4 server should responds to the request with the domain name list to be used by the PANA client.

Security Consideration

- If an adversary manages to modify the response from a DHCP server or insert its own response, a PANA Client could be led to contact a rogue PANA Agent, possibly one that then intercepts call requests or denies service.

THANK YOU!