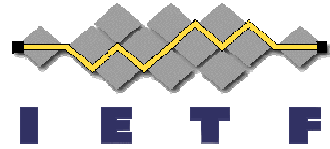# RADIUS extensions for PCP

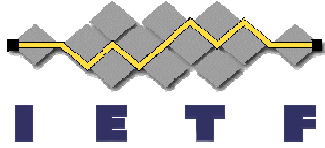## *draft-maglione-pcp-radius-ext-05*

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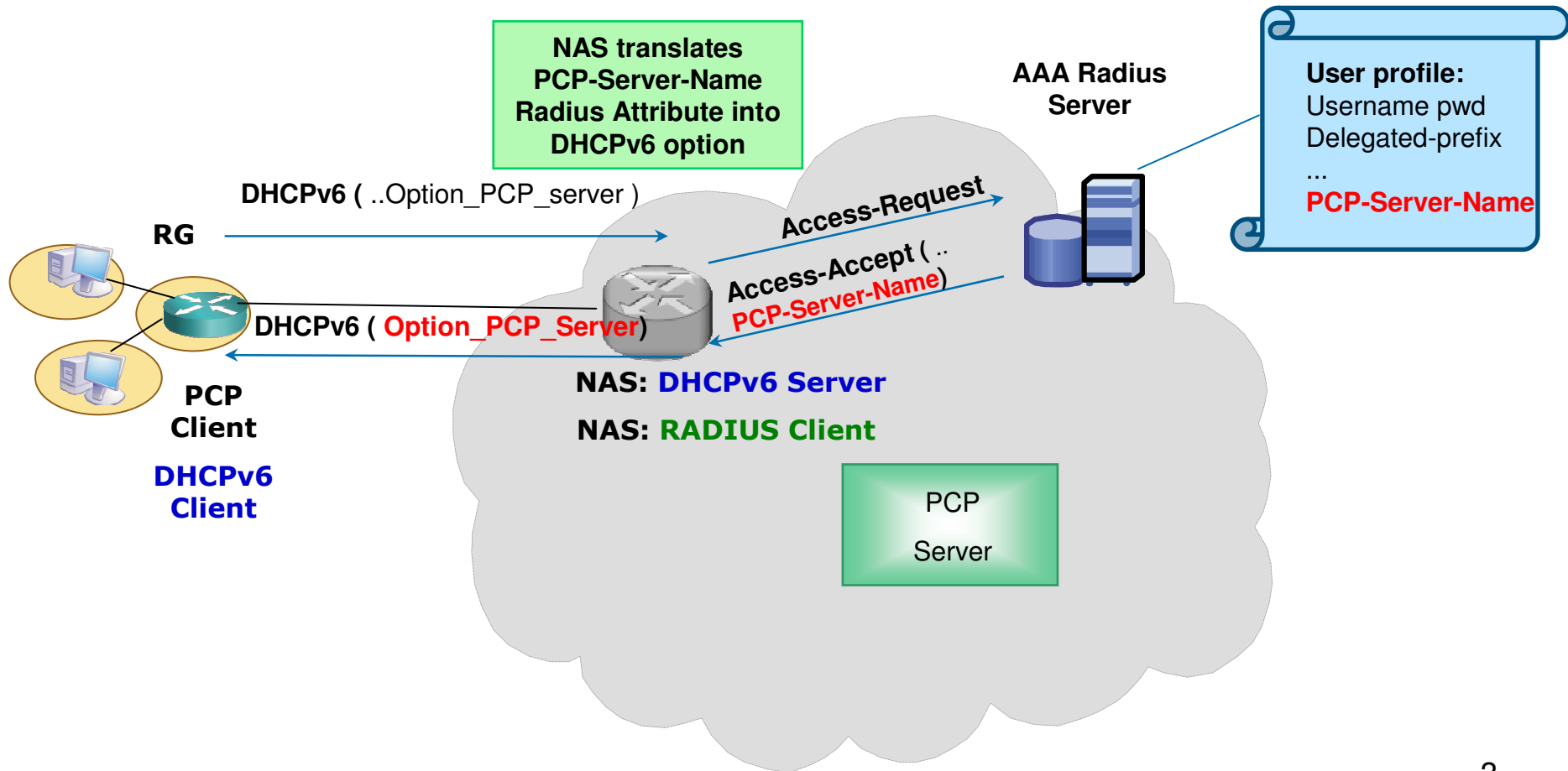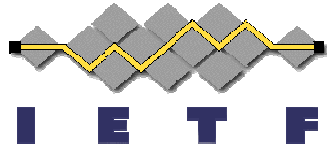**R. Maglione, M. Boucadair, D. Cheng**

Motivations

- *draft-ietf-pcp-dhcp* defines DHCP and DHCPv6 options which can be used to provision a PCP Server reachability information.

- In a broadband network, customer information is usually stored on a AAA/RADIUS server and DHCP/DHCPv6 is used to populate user's configuration information.

- This document specifies a new RADIUS attribute to carry one or a list of PCP Server Names; the information can be conveyed to the NAS that is co-located with DHCP/DHCPv6 server, which then populates the DHCP/DHCPv6 option to its clients.

- A similar approach for provisioning the FDQN of the AFTR is already defined for DS-Lite in RFC 6519.

IPv6 Scenario of applicability

NAS translates
PCP-Server-Name
Radius Attribute into
DHCPv6 option

AAA Radius
Server

User profile:
Username pwd
Delegated-prefix
...
PCP-Server-Name

DHCPv6 (..Option_PCP_server)

RG

Access-Request

Access-Accept (..
PCP-Server-Name)

DHCPv6 (Option_PCP_Server)

PCP
Client

DHCPv6
Client

NAS: DHCPv6 Server

NAS: RADIUS Client

PCP
Server

PCP-Server-Name Radius Attribute

```
 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
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|     Type       |     Length      |  PCP-Server-Name  ....
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                  Context         |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

- The PCP-server-name attribute contains a name or a list of names that refers to a PCP server the client requests to establish a connection to for PCP related service
  - Aligned with draft-ietf-pcp-dhcp
- The NAS shall use the name returned in the RADIUS PCP-server-name attribute to populate the PCP Server Name DHCP Option in IPv4 addressing context, or the PCP Server Name DHCPv6 Option in IPv6 addressing context
- **Context**: This field indicates the IP connectivity context (IPv4, IPv6 or Dual-stack)

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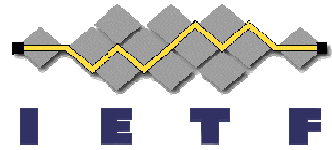
Next Step

- *The document is stable*
- *We think it is ready for WG adoption*