DHCP Option for CLF/NASS
(Access Network Identifier)

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Background

TISPAN NGN Architecture

- Resource and Admission Control Functionality (RACS)
- Network Attachment Functionality (NASS)
- User Profiles
- Streaming Services (RTSP based)
- PSTN / ISDN Emulation (SIP-I based)
- IP Multimedia Component (Core IMS) (SIP based)
- Based on 3GPP IMS
- IP Connectivity Access Network and related functionality
- Legacy Terminals
- Customer Networks
- NGN Terminals
- 3GPP IP-CAN
- 3GPP Terminals
- NGN Terminals
- Customer Networks
- Legacy Terminals
- Access Transport Network
Background

NASS

The Network Attachment Subsystem provides the following functionalities:
• Dynamic provision of IP address and other user equipment configuration parameters (e.g. using DHCP).
• User authentication, prior or during the IP address allocation procedure.
• Authorisation of network access, based on user profile.
• Access network configuration, based on user profile.
• Location management.
### Background

*One Service Control Subsystem may provide services to several access networks. The Service Control Subsystem need to communicate with the NASS of access network. So:*

The NACF should be able to provide to the CPE a access network identifier. This information uniquely identifies the access network to which the CPE is attached. With this information applications should be able to locate the CLF.

*Note: The transport of the access identifier depends on extension in existing protocols (e.g. new DHCP option)*

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DHCP Option for CLF/NASS

1) Get IP address (with access network identifier) via DHCP
2) CPE register to service control subsystem (carry access network identifier)
3) Service control subsystem find out the access network that the CPE attached, and contact with the NASS of the access network
DHCP Option for CLF/NASS

We suggest to define the DHCP option to carry the access network identifier, such as CLF identifier or NASS identifier.

3 options:
• Domain name of CLF
• IP address of CLF
• Name of NASS
DHCP Option for CLF/NASS

- Domain name of CLF

- IP address of CLF

- Name of NASS
Security and Other

Security Considerations
--- The domain name or IP address of CLF will only be used by Service Control Subsystem, the CPE can not contact CLF directly.
--- If the access network operator do not want expose the domain name or IP address of CLF to the CPE, the Name of NASS option should be used. The Service Control Subsystem should find out the IP address of CLF according to the Name of NASS from its DB or list.

Other
--- Only DHCP v4 now, need expand to DHCP v6
THANK YOU !