# SAVI Analysis for PANA with SLACC

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IETF 78

draft-ding-savi-pana-with-slacc-00

# outline

- IPv6 Broadband Access Network
- Problems
- SAVI for PANA with SLACC

# IPv6 Broadband Access Network

- In IPv6 network, HGW get a delegated prefix (says, /56) and then advertises it to UEs in home network.
- Subscriber generates GUA via stateless address configuration
  - UE gets its own LLA/ULA address and then uses it as source IP address for the following PANA authentication for subscriber verification.
  - Once the authentication succeeds, UE sends RS to HGW and HGW replies with RA with a /64 prefix option for SLACC configuration.
  - UE uses the prefix to generate its GUA  address, and uses it for the following data transportation.
  - UE1 and UE2 maybe get different /64 prefix by this same way.

# IPv6 Broadband Access Network

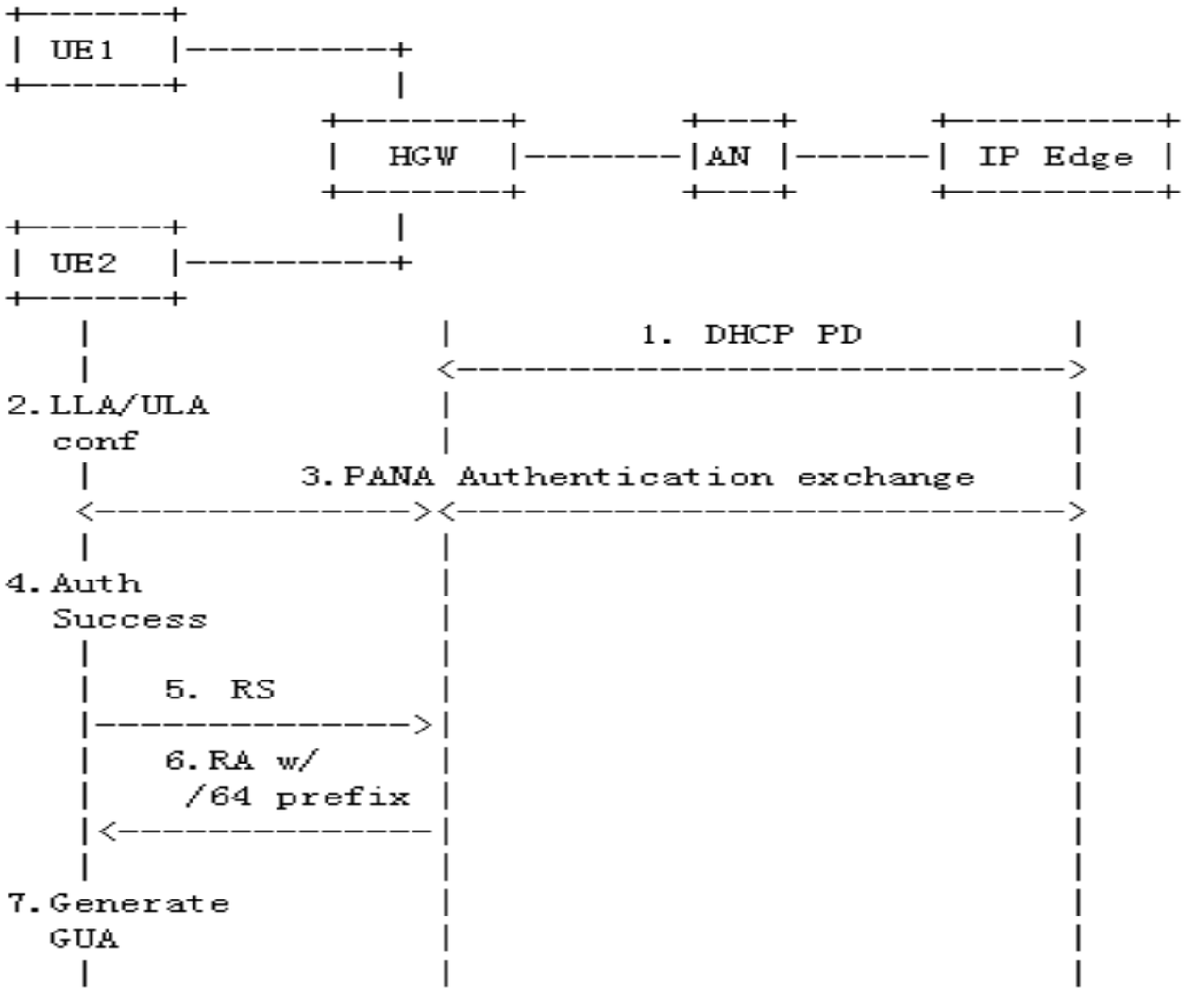
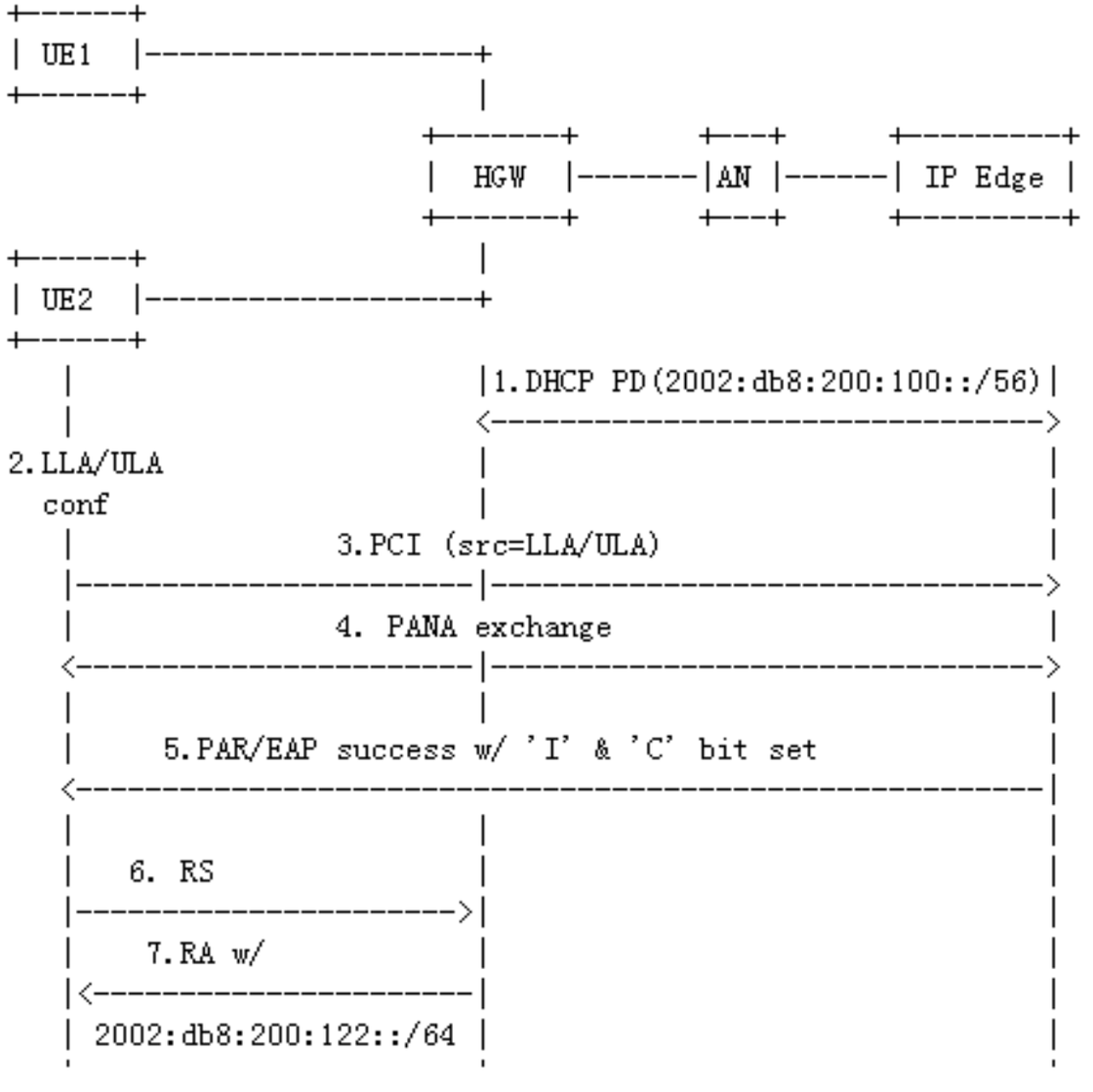



Figure 1: IPv6 Broadband Access Network

# Problems

- IP edge  only knows /56 it delegated to HGW, there is no native way for IP  edge to know which address/prefix UE1 and UE2 used within the range of the delegated /56 prefix.  How to validate the address of UE?
- IP session terminates on IP edge, IP edge should have the detailed information stored for each session,  e.g. prefix, address, layer 2 information, etc.
- If IP edge wants to  treat the connections which terminate on UE1 and UE2 as different  sessions, it needs to know the specific information of each to set up correct binding relationship.
- Solution is need to solve this problem.

# SAVI for PANA with SLACC




- PAR with EAP success payload is sent to UE. 'I' bit was set to indicate that UE is required to get a GUA and use that GUA for the following message exchange.
- In SLACC procedure, UE get advertised prefix from HGW by RS/RA exchange , and use it to generate the GUA address for data communication.

# SAVI for PANA with SLACC

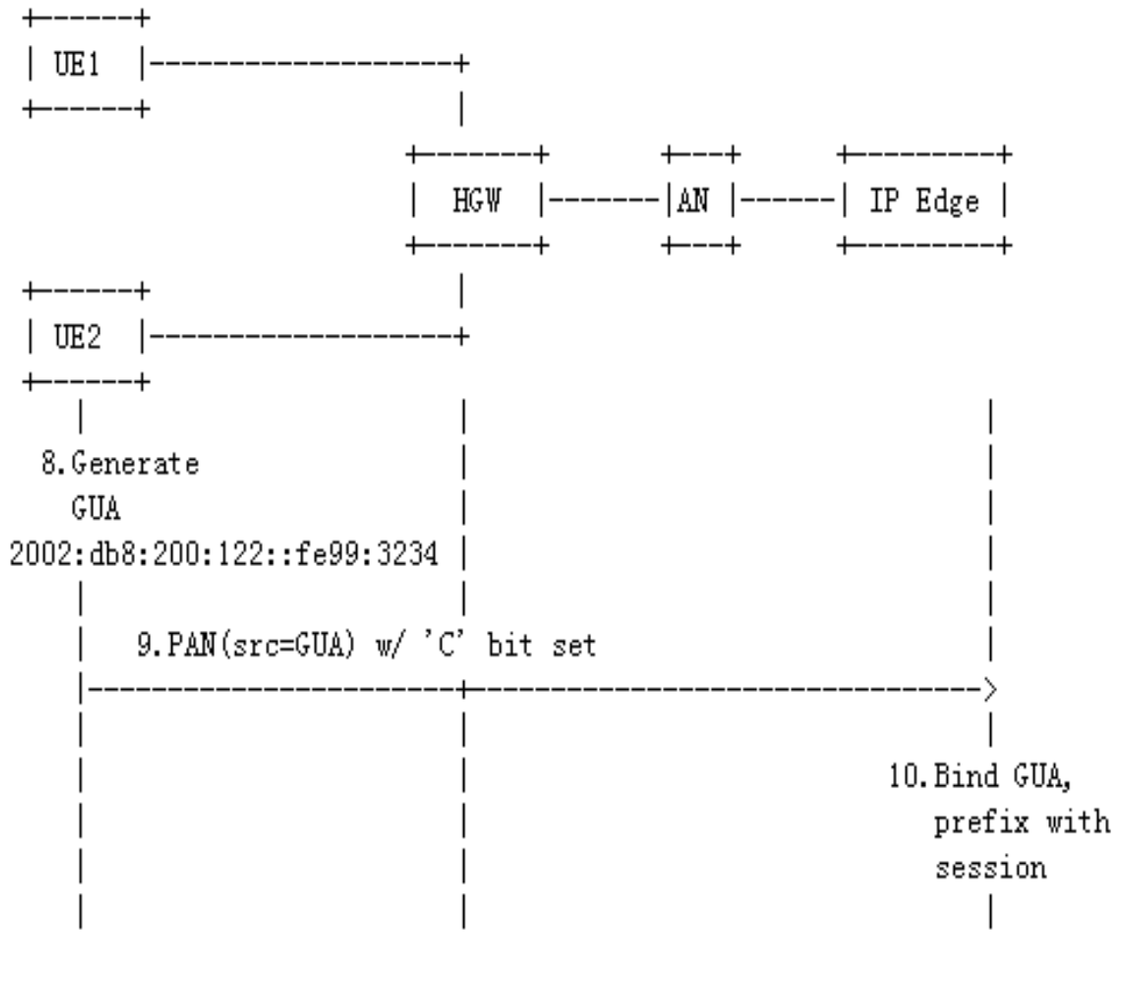



Figure 2: Message flow of IP/prefix reconfiguration in home network -1

- UE sends with 'C' bit set to IP edge. GUA address generated is used as the source IP address.
- IP edge retrieves the GUA and prefix information and binds them with the session initiated by UE.
- Embedded mechanism of PANA, a light-weighted solution

# SAVI for PANA with SLACC

- Another approach: the address UE use in data communication may be allocated after authentication process finished

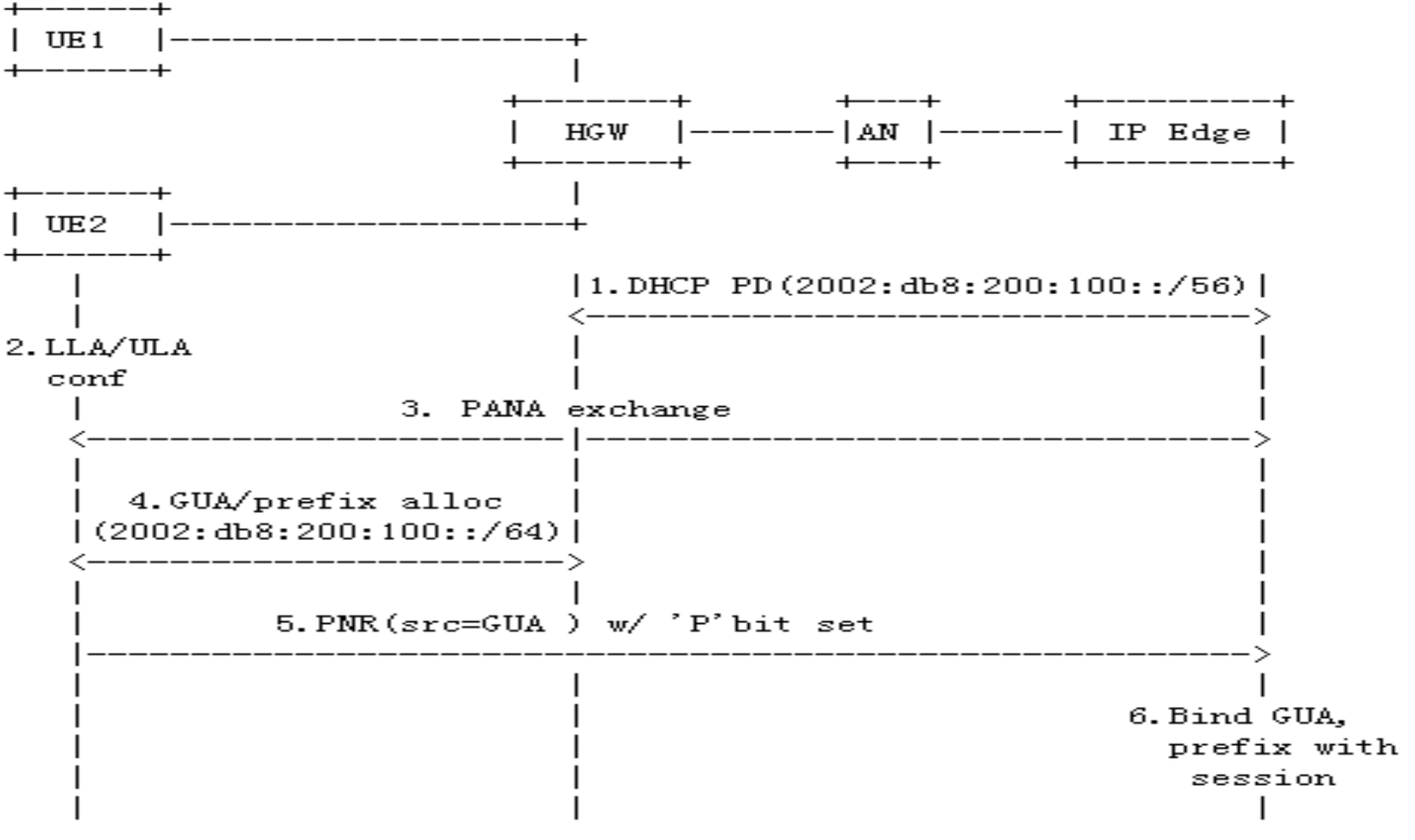



Figure 3: Message flow of IP/prefix reconfiguration in home network -2

# Discussions

Thank You