3GPP TSG-SA WG2 Meeting #126
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S2-182045

Source:	LG Electronics
Title:	Discussion on paging for DL signaling associated with non-3GPP PDU Session
Document for:	Discussion
Agenda Item:	6.5.10 Non-3GPP access specific functionality and flows
Work Item / Release:	5GS_Ph1 / Rel-15

Discussion on paging for DL signaling associated with non-3GPP PDU Session

LG Electronics

Background

❑ CT1 LS (S2-176838 / C1-173750)

- Question#2: For downlink signaling pending over non-3GPP access due to the UE is in CM-IDLE in non-3GPP access, whether the same handling as downlink user data pending as specified in TS 23.501 subclause 5.6.8 can be applied?

- In Reno meeting, S2-178912 (Motorola Mobility) was discussed but there was no conclusion.

- In Gothenburg meeting, Reply LS (S2-181028) is sent to CT1. In the LS, answered that SA2 needs more considerations on this issue.

Analysis

❑ DL signaling initiated from the SMF when the UE is in CM-IDLE

- PDU Session Modification
  - QoS parameter update (e.g. Session-AMBR)
  - Transmission of updated ePCO (e.g. for P-CSCF restoration)
  - SSC mode operation (e.g. SSC mode 3)

- PDU Session Release
  - Due to subscriber data update notification from the UDM
  - SSC mode operation (e.g. SSC mode 2)

❑ SM signaling is transmitted in MM message as a container

- Which access is used to transmit MM message is basically transparent to SM message handling
- SM signaling is identified by PDU Session ID and PTI and independent with access information

❑ No need to add additional mechanism for DL signaling

- UE always response to the non-3GPP paging, so there is no need to indicate any additional information in the paging request for differentiating DL signaling from DL traffic related to non-3GPP PDU Session

❑ If we allows paging only for downlink data, AMF behavior should be defined.

- It is not clear how the AMF behaves if the SMF request both SM NAS signal and activation of user plane
  - For example, SMF may initiate PDU Session Modification procedure to update QoS flow when there is downlink data for the PDU Session

Conclusion

- **There is no harm even if signaling messages associated with non-3GPP PDU Session are sent to 3GPP access**

- **It is proposed to use 3GPP paging for DL signaling associated with non-3GPP PDU Session**
  - CR proposal: S2-182046