**3GPP TSG-RAN WG3 #113-e R3-21xxxx**

**16-26 Aug 2021**

**Title: [DRAFT] LS on UP security policy updated by intra-cell handover**

**Response to:**

**Release:** Release 17

**Work Item:** TEI-17

**Source:** China Telecom [to be RAN3]

**To:** RAN2

**Cc:** SA3

**Contact Person:**

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**1. Overall Description:**

Per TS33.501 clauses 6.1.1, SMF shall send its locally stored UE's UP security policy of the corresponding PDU sessions to the target gNB via Path Switch Response message if UE's UP security policy received from the target ng-eNB/gNB is mismatch with that the SMF has locally stored. And the target gNB shall initiate intra-cell handover procedure which includes RRC Connection Reconfiguration procedure to reconfigure the DRBs to activate or de-activate the UP integrity/confidentiality as per the received policy from SMF.

However, according to TS38.331, ciphering and integrity protection can be enabled or disabled for a DRB. The enabling/disabling of ciphering or integrity protection can be changed only by releasing and adding the DRB. RAN3 would like to know if the UP security policy of an ongoing DRB can be updated by releasing and adding the same DRB ID within the same RRC Reconfiguration message through intra-cell handover procedure.

RAN3 has discussed whether UP security policy can be updated via E1 message UE Context Modification when received a different UP security policy in Path Switch ACK message from AMF/SMF. Before making any such decision, RAN3 would like to confirm with RAN2 if the enabling/disabling of ciphering or integrity protection of one or multiple DRBs can be changed by intra-cell handover.

**2. Actions:**

**To RAN1 :** RAN3 kindly requests RAN2 to provide feedback whether the enabling/disabling of ciphering or integrity protection of one or multiple DRBs can be achieved by intra-cell handover within one RRC reconfiguration message..

**3. Dates of Next TSG-RAN WG3 Meetings:**

3GPP TSG RAN WG3#114-e 1 Nov - 11 Nov, 2021 Online

3GPP TSG RAN WG3#115 -e 21 - 25 Feb, 2022 Athens, GR