**3GPP TSG-RAN WG1 Meeting #102-e R1-20xxxxx**

e-Meeting, August 17th – 28th , 2020

**Title: [Draft] LS on UL skipping**

**Release: Rel-16**

**Work Item: NR\_newRAT-Core, TEI16**

**Source:** vivo [To be RAN1]

**To:** RAN2

**Cc:**

**Attachments:**

**Contact Person:**

**Name:**

**E-mail Address:**

**1. Overall Description:**

In Rel-15, for dynamic UL skipping, RAN1 discussed the LS R1-2000015 from RAN2 and provided replies in R1-2001376 for Case 1 of dynamic PUSCH skipping without overlapping CSI/HARQ-ACK on PUCCH.

Case 2 of dynamic PUSCH skipping with overlapping CSI/HARQ-ACK on PUCCH was further discussed in RAN1. In RAN1#101-e meeting, it was concluded that in Rel-15, the UE behavior is undefined for case 2 and case 2 can be addressed for Rel-16. Endorsed CR R1-2005044 (TS38.214, Rel-15, CR#0105, Cat. F) for Case 1 and Case 2 can be found in the attachment.

In Rel-16, RAN1 continued the discussion for Case 2 and made following agreements in RAN1#102-e meeting:

|  |
| --- |
| **Agreement**For UL skipping of dynamic UL grant in non-CA and CA case, when there is PUCCH carrying UCI overlapping with a set of PUSCHs, the PUSCH with UCI multiplexing from the set cannot be skipped. MAC generates MAC PDU for the PUSCH and the UCI is multiplexed on the PUSCH. |

Based on above agreements, RAN1 in principle agreed the corrections for Rel-16 TS 38.214 (R1-200xxxx), assuming that RAN2 will update the Rel-16 sepcification TS 38.321 corresponding to the above agreement so that UE generates the MAC PDU for the PUSCH with UCI multiplexing.

In addition, RAN1 noticed that in Rel-15, dynamic UL skipping is an optional feature with capability signaling (*skipUplinkTxDynamic*). It is RAN1’s understanding the dynamic UL skipping cannot be implemented based on the Rel-15 specification. For Rel-16 with the defined UE behavior for dynamic UL skipping, RAN1 has discussed following two options for the capability signaling handling. However, the final decision on the capability design for Rel-16 dynamic UL skipping should be decided by RAN2.

* Option 1: introduce a new UE capability for Rel-16 dynamic UL skipping
* Option 2: Reuse Rel-15 UE capability with the understanding that Rel-15 dynamic UL skipping is not implementable therefore UEs indicating this capability should implement Rel-16 behavior.

**2. Actions:**

RAN1 respectfully asks RAN2 to

* Update Rel-16 TS 38.321 to support Rel-16 dynamic UL skipping
* Resolve the capabability signaling issue for Rel-16 dynamic UL skipping

**3. Date of Next RAN1 Meetings:**

TSG-RAN WG1 Meeting #103-e 26th October – 13th November 2020 E-meeting.