

3GPP TSG-RAN WG1 Meeting #102-e
e-Meeting, August 17th – 28th, 2020

R1-2007338

Title: LS on PUSCH with UL skipping
Release: Rel-16
Work Item: NR_newRAT-Core, TEI16

Source: RAN1
To: RAN2
Cc:
Attachments: R1-2005044, R1-2007337
Contact Person:

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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 specification 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 capability 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.