**3GPP TSG-RAN WG1 Meeting #**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **rev** |  | **Current version:** | **16.6.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

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|  |
| ***Title:***  |  |
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| ***Source to WG:*** | vivo |
| ***Source to TSG:*** | R1 |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** |  |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | Capture the conlusion that type1 HARQ-ACK codebook with HARQ-ACK for multiple resource pools containing PSFCHs is not supported. |
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| ***Summary of change:*** | Clarify that UE is not explected to be configured or schduled to multiple HARQ-ACK in type1 HARQ-ACK codebook for multiple resource pools containing PSFCHs |
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| ***Consequences if not approved:*** | gNB and UE may have different understanding on whether type1 sidelink HARQ-ACK codebook with HARQ-ACK for multiple resource pools containing PSFCHs is supported or not. |
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| ***Clauses affected:*** | 16.5.1.1 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** | **Isolated impact analysis:**This CR aligns with RAN1 common understanding. |
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| ***This CR's revision history:*** |  |

### 16.5.1 Type-1 HARQ-ACK codebook determination

This clause applies if the UE is configured with *pdsch-HARQ-ACK-Codebook = semi-static*.

If a UE is configured a SL configured grant Type 1, and the UE is configured a SL configured grant Type 2 or to monitor PDCCH for detection of DCI format 3\_0 with CRC scrambled by SL-RNTI or SL-CS-RNTI, and the UE is provided a set of slot timing values $K\_{1}$ associated with a SL BWP by *sl-PSFCH-ToPUCCH* and *sl-PSFCH-ToPUCCH-CG-Type1*, the *sl-PSFCH-ToPUCCH-CG-Type1* is one of *sl-PSFCH-ToPUCCH*.

A UE reports HARQ-ACK information for PSSCH transmissions with corresponding PSFCH reception occasions in slot $n$ only in a HARQ-ACK codebook that the UE includes in a PUCCH or PUSCH transmission in slot $n+k$, where $k$ is a number of slots indicated by the PSFCH-to-HARQ\_feedback timing indicator field in a DCI format 3\_0 scheduling the PSSCH transmissions, or by a value of PSFCH-to-HARQ feedback timing indicator field in a DCI format 3\_0 activating a SL configured grant Type-2 transmission, or by a value of *sl-PSFCH-ToPUCCH* for a SL configured grant Type-1. If the UE reports HARQ-ACK information for the PSSCH transmissions with corresponding PSFCH reception occasions in a slot other than slot $n+k$, the UE sets a value for each corresponding HARQ-ACK information bit to NACK.

If a UE reports HARQ-ACK information in a PUCCH only for

- PSFCH reception occasions associated with PSSCH transmissions scheduled by a DCI format 3\_0 with counter SAI field value of 1, or

- PSFCH reception occasions associated with PSSCH transmissions corresponding to a SL configured grant

within a set $M\_{A}$ of occasions for candidate PSSCH transmissions with corresponding PSFCH reception occasions as determined in clause 16.5.1.1, the UE determines a HARQ-ACK codebook only for the PSFCH reception occasion associated with PSSCH transmissions scheduled by DCI format 3\_0 or only for the PSFCH reception occasion associated with PSSCH transmissions corresponding to a SL configured grant according to corresponding set $M\_{A}$ of occasions, where a value of a counter SAI in DCI format 3\_0 is according to Table 16.5.2.1-1. Otherwise, the procedures in clause 16.5.1.1 and in clause 16.5.1.2 for a HARQ-ACK codebook determination apply.

A UE does not expect to be scheduled or configured to multiplex HARQ-ACK information for candidate PSSCH transmissions with corresponding PSFCH reception occasions from more than one pools in a same PUCCH or PUSCH resource.