**3GPP TSG RAN WG1 #118 R1-240xxxx**

**Maastricht, Netherlands, August 19th – 23th, 2024**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.214** | **CR** |  | **rev** | **-** | **Current version:** | **18.3.0** |  |
|  |
| *For* [***HELP***](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)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

|  |
| --- |
|  |
| ***Title:***  | CR on mDCI based STx2P out-of-order operation |
|  |  |
| ***Source to WG:*** | Moderator (OPPO), Samsung, Qualcomm |
| ***Source to TSG:*** | RAN1 |
|  |  |
| ***Work item code:*** | NR\_MIMO\_evo\_DL\_UL-Core |  | ***Date:*** | 2024-08-19 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-18 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | In TS 38.214-i20, the condition “non-overlapping in time domain” on two PUSCHs scheduling has been deleted, and it could not clearly capture UE behaviors without using STx2P related RRC parameter and UE capability for supporting out-of-order operation for STx2P. |
|  |  |
| ***Summary of change:*** | Add the wording “the UE reports its capability of outOfOrderOperationUL-r16 or outOfOrderOperationUL-r18” to clarify the correct conditions for in-order or out-of-order operation for each cases including multi-DCI based STx2P. |
|  |  |
| ***Consequences if not approved:*** | It is not clear what could be possible conditions and corresponding to in-order or out-of-order operation for each of cases considering multi-DCI based STx2P. |
|  |  |
| ***Clauses affected:*** | 6.1 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  |  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | This is the first version of the CR. |

6.1 UE procedure for transmitting the physical uplink shared channel

< Unchanged parts are omitted >

Except for the case when a UE is configured by higher layer parameter *PDCCH-Config* that contains two different values of *coresetPoolIndex* in *ControlResourceSet* for the active BWP of a serving cell and PDCCHs that schedule two PUSCHs are associated to different *ControlResourceSets* having different values of *coresetPoolIndex* and the UE reports its capability of *outOfOrderOperationUL-r16* or *outOfOrderOperationUL-r18,* for any two HARQ process IDs in a given scheduled cell, if the UE is scheduled to start a first PUSCH transmission starting in symbol *j* by a PDCCH ending in symbol *i*, the UE is not expected to be scheduled to transmit a PUSCH starting earlier than the end of the first PUSCH by a PDCCH that ends later than symbol *i*.

< Unchanged parts are omitted >

If a UE is configured by higher layer parameter *PDCCH-Config* that contains two different values of *coresetPoolIndex* in *ControlResourceSet* for the active BWP of a serving cell and PDCCHs that schedule two PUSCHs are associated to different *ControlResourceSets* having different values of *coresetPoolIndex* and the UE reports its capability of *outOfOrderOperationUL-r16* or *outOfOrderOperationUL-r18,* for any two HARQ process IDs in a given scheduled cell, if the UE is scheduled to start a first PUSCH transmission starting in symbol *j* by a PDCCH associated with a value of *coresetPoolIndex* ending in symbol *i*, the UE can be scheduled to transmit a PUSCH starting earlier than the end of the first PUSCH by a PDCCH associated with a different value of *coresetPoolIndex* that ends later than symbol *i*.

 < Unchanged parts are omitted >