**3GPP TSG-RAN WG1 Meeting #114R1-23xxxxx**

**Toulouse, France, August 21 – 25, 2023**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **DRAFT CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.212** | **CR** | **xxxx** | **rev** | **-** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Introduction of IoT NTN enhancements | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | FUTUREWEI | | | | | | | | | |
| ***Source to TSG:*** | RAN1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | IoT\_NTN\_enh-Core | | | | |  | ***Date:*** | | | 2023-09-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***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 can be 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:*** | | Introduction of IoT NTN enhancements | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Support HARQ feedback disabling via DCI formats 6-1B and N1 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | No support of IoT NTN enhancements | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.3.3.1.13, 6.4.3.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS36.213 | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

##### 5.3.3.1.13 Format 6-1B

DCI format 6-1B is used for the scheduling of one PDSCH codeword per TTI in one cell, notifying SC-MCCH change, operation on preconfigured UL resources, and direct indication.

< text omitted >

- HARQ-ACK resource offset – 0 or 2 bits as defined in clause 10.1 of [3] (this field is 0 bits if Information for SC-MCCH change notification is present). If *downlinkHARQ-FeedbackDisabled-DCI* is configured, or if *downlinkHARQ-FeedbackDisabled-Bitmap* and *downlinkHARQ-FeedbackDisabled-DCI* are configured, and the value is ‘3’, it functions as a HARQ feedback disabled indicator as defined in clause 7.3 of [3].

< text omitted >

#### 6.4.3.2 DCI Format N1

DCI format N1 is used for the scheduling of one NPDSCH codeword per TTI in one cell, random access procedure initiated by a NPDCCH order, notifying SC-MCCH change, and operation on preconfigured UL resources. The DCI corresponding to a NPDCCH order is carried by NPDCCH.

< text omitted >

- HARQ-ACK resource – 4 bits as defined in clause 16.4.2 of [3]. If *downlinkHARQ-FeedbackDisabled-DCI-NB* is configured, or if *downlinkHARQ-FeedbackDisabled-Bitmap-NB* and *downlinkHARQ-FeedbackDisabled-DCI-NB* are configured, and the value is ‘15’, it functions as a HARQ feedback disabled indicator.

< text omitted >