**3GPP TSG-SA5 Meeting #156 *S5-244761***

Maastricht, , 19 – 23 August 2024

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  |
| *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 |  | Radio Access Network | **x** | Core Network |  |

|  |
| --- |
|  |
| ***Title:***  | Rel-19 CR TS 28.552 Correction of UL CI Time Domain Proportion |
|  |  |
| ***Source to WG:*** | Ericsson, China Unicom |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | PM\_KPI\_5G\_Ph4 |  | ***Date:*** | 2024-08-05 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-19 |
|  | *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)* |
|  |  |
| ***Reason for change:*** | The description of the denominator in the calculation formula of UL CI Time Domain Proportion is not accurate. It is very confusing to define the UL packets as “transmitted”. From gNB point of view, the gNB does not know if UE has transmitted something or not. It is more appropriate to change 'UL data transmitted' to 'UL data scheduled'. |
|  |  |
| ***Summary of change:*** | Change the description of the denominator in the calculation formula of UL CI Time Domain Proportion from 'UL data transmitted' to 'UL data scheduled' |
|  |  |
| ***Consequences if not approved:*** | The description of the denominator in the calculation formula of UL CI Time Domain Proportion is not accurate. |
|  |  |
| ***Clauses affected:*** | 5.1.1.2.17 |
|  |  |
|  | **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 ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

|  |
| --- |
| **1st Change** |

##### 5.1.1.2.17 UL CI Time Domain Proportion

a) This measurement provides the proportion of time domain resources that invoke the cancellation indication (CI) feature during the sampling period. The number of sampling occasions that invoke the CI feature (see clause 11.2A in TS 32.213 [64]), when the number of cancelled PRBs is greater than 0. And the denominator is the number of sampling occasions with UL data scheduled (eMBB, URLLC, etc.).

b) SI

c) This measurement is obtained as:$P\_{CI}\left（T\right）=\left⌊\frac{CI\left(T\right)}{N\_{UT}\left(T\right)}\*100\right⌋$,

where

$P\_{CI}(T)$ denotes the proportion of time domain resources that invoke the CI feature during the time period$T$, with value range: 0-100%;

$CI(T)$ is the number of sampling occasions that invoke the CI feature during the time period $T$, $CI(T)=\sum\_{i}^{}CI\_{i}(T)$;

$CI\_{i}\left(T\right)$ is the invoking CI feature result of sampling occasion $i$, when the number of physical resource blocks (PRBs) that invoke the CI feature at sampling occasion $i$ is greater than 0, $CI\_{i}(T)$ = 1, and when the number of PRBs that invoke the CI feature at sampling occasion $i$ is equal to 0, $CI\_{i}(T)$ = 0;

$N\_{UT}(T)$ is the number of sampling occasions with UL data scheduled (eMBB, URLLC, etc.) during the time period $T$,$N\_{UT}(T)=\sum\_{i}^{}N\_{UT,i}(T)$；

$N\_{UT,i}(T)$ is the UL data scheduled result of sampling occasion $i$, when there is UL data scheduled at sampling occasion $i$, $N\_{UT,i}(T)$=1, and when there is no UL data scheduled at sampling occasion $i$, $N\_{UT,i}(T)$=0;

NOTE: UL data is scheduled of user plane, such as eMBB data, URLLC data, etc.

$T$ denotes the time period during which measurement is performed;

$i$ denotes sampling occasion (e.g. 1 slot) during time period $T$.

d) A single integer value from 0 to 100.

e) RRU.CiUtUl, which indicates the proportion of time domain resources that invoke the CI feature

f) NRCellDU

g) Valid for packet switched traffic

h) 5GS

i) One usage of this measurement is for evaluating the resource load of URLLC services under eMBB and URLLC multiplexing scenarios.

|  |
| --- |
| **End of Change** |