**3GPP TSG-SA5 Meeting #155 *S5-243272d1***

**Jeju, South Korea, 27 - 31 May 2024**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **0573** | **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 | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Rel-19 CR TS 28.552 Add new measurements for Mean virtual GPU usage | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Unicom | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | PM\_KPI\_5G\_Ph4 | | | | |  | ***Date:*** | | | 2024-05-15 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***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 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | CPU and GPU have differences in processing speed, role and technology, which leads to the need to choose a more appropriate processing unit according to different application scenarios and needs. At present, Gpu is widely used in large-scale computing tasks, and the measurement requirements of Mean virtual GPU usage should also be met, but now only Mean virtual CPU usage is measured in TS 28.552. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add new measurements for Mean virtual GPU usage. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The measurement requirements of Mean virtual GPU usage cannot be met. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.7.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  |  | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  |  | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

#### 5.7.1.X Virtual GPU usage

##### 5.7.1.X.1 Mean virtual GPU usage

a) This measurement provides the mean usage of the underlying virtualized GPUs for a virtualized 3GPP NF. This measurement is not applicable to the scenario that one VNFC instance supports more than 1 NFs.

b) OM.

c) The measurement method is similar to Mean virtual CPU usage, refer to Mean virtual CPU usage (see TS 28.552 clause 5.7.1.1.1).

d) A single integer value (Unit: %).

e) VR.VGpuUsageMean

f) GNBCUCPFunction (for 3 split scenario)  
GNBCUUPFunction (for 3 split scenario)  
GNBCUFunction (for 2 split scenario)  
NWDAFFunction

g) Valid for packet switched traffic.

h) 5GS

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