**3GPP TSG-CT WG4 Meeting #111-eC4-224405**

**E-Meeting, 18th – 26th August 2022** *Revision of C4-224139*

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.281** | **CR** | **0120** | **rev** | **1** | **Current version:** | **17.3.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | MB-UPF | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5MBS | | | | |  | ***Date:*** | | | 2022-08-04 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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:*** | | Clause 4.3.0 does not list MB-UPF is added as one of the GTP-U entities. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | MB-UPF is added as one of the GTP-U entities. N3mb is added to Annex A. | | | | | | | | |
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| ***Consequences if not approved:*** | | Incomplete specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.3.0, Annex A. | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Rev1: Changes to clauses 4.3.1 and 5.1 are removed. A change to Annex A is added. Cover sheet is updated. | | | | | | | | |

\* \* \* First Change \* \* \* \*

## 4.3 GTP-U Protocol Entity

### 4.3.0 General

The GTP-U protocol entity provides packet transmission and reception services to user plane entities in the RNC, SGSN, GGSN, eNodeB, SGW, ePDG, PGW, TWAN, MME, gNB, N3IWF, UPF and MB-UPF. The GTP-U protocol entity receives traffic from a number of GTP-U tunnel endpoints and transmits traffic to a number of GTP-U tunnel endpoints. There is a GTP-U protocol entity per IP address.

The TEID in the GTP-U header is used to de-multiplex traffic incoming from remote tunnel endpoints so that it is delivered to the User plane entities in a way that allows multiplexing of different users, different packet protocols and different QoS levels. The GTP-U protocol supports the possibility for one GTP-U tunnel endpoint to receive packets from multiple remote GTP-U endpoints. This may be used in the following scenarios:

- Tracking Area Update procedure with Serving GW change and data forwarding as specified in clause 5.3.3.1A of 3GPP TS 23.401 [5], if the above capability is supported by the receiving eNB;

- Dual connectivity in 5GC as specified in clause 5.11.1 of 3GPP TS 23.501 [28], where the master and secondary NG-RAN may be assigned the same uplink F-TEID of the UPF by the SMF for uplink traffic of the same PDU session; and

- IPv6 multihoming scenario as specified in clause 5.6.4.3 of 3GPP TS 23.501 [28], where the downlink traffic from multiple PDU Session Anchors of the same PDU session may be assigned the same N9 F-TEID of the branching point UPF by the SMF.

\* \* \* 2nd Change \* \* \* \*

Annex A (Normative):  
PDU session user plane protocol over N9 and N19mb

The PDU session user plane protocol shall be supported over the N9, N3mb and N19mb interface as specified in 3GPP TS 38.415 [31].

\* \* \* End of Changes \* \* \* \*