**3GPP TSG- Meeting #**

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| *CR-Form-v12.0* | | | | | | | | |
| **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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** |  | | | | | | | | | |
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| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI16, | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | There are some mismatch information between Interface and Description of UP Function Features.For e.g. Feature VTIME with description of UPF support quota validity time feature,while the applicable interface shows Sxb together with N4 interface. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Delete unmatched Interfaces or Descriptions in UP Funtion Features. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Inappropriate feature description. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.2.25 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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

### 8.2.25 UP Function Features

The UP Function Features IE indicates the features supported by the UP function. It is coded as depicted in Figure 8.2.25-1.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Bits | | | | | | | |  |
|  | Octets | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
|  | 1 to 2 | Type = 43 (decimal) | | | | | | | |  |
|  | 3 to 4 | Length = n | | | | | | | |  |
|  | 5 to 6 | Supported-Features | | | | | | | |  |
|  | 7 to 8 | Additional Supported-Features 1 | | | | | | | |  |
|  | 9 to 10 | Additional Supported-Features 2 | | | | | | | |  |
|  | 11 to (n+4) | These octet(s) is/are present only if explicitly specified | | | | | | | |  |

Figure 8.2.25-1: UP Function Features

The UP Function Features IE takes the form of a bitmask where each bit set indicates that the corresponding feature is supported. Spare bits shall be ignored by the receiver. The same bitmask is defined for all PFCP interfaces.

The following table specifies the features defined on PFCP interfaces and the interfaces on which they apply.

Table 8.2.25-1: UP Function Features

|  |  |  |  |
| --- | --- | --- | --- |
| Feature Octet / Bit | Feature | Interface | Description |
| 5/1 | BUCP | Sxa, N4 | Downlink Data Buffering in CP function is supported by the UP function. |
| 5/2 | DDND | Sxa, N4 | The buffering parameter 'Downlink Data Notification Delay' is supported by the UP function. |
| 5/3 | DLBD | Sxa, N4 | The buffering parameter 'DL Buffering Duration' is supported by the UP function. |
| 5/4 | TRST | Sxb, Sxc, N4 | Traffic Steering is supported by the UP function. |
| 5/5 | FTUP | Sxa, Sxb, N4 | F-TEID allocation / release in the UP function is supported by the UP function. |
| 5/6 | PFDM | Sxb, Sxc, N4 | The PFD Management procedure is supported by the UP function. |
| 5/7 | HEEU | Sxb, Sxc, N4 | Header Enrichment of Uplink traffic is supported by the UP function. |
| 5/8 | TREU | Sxb, Sxc, N4 | Traffic Redirection Enforcement in the UP function is supported by the UP function. |
| 6/1 | EMPU | Sxa, Sxb, N4 | Sending of End Marker packets supported by the UP function. |
| 6/2 | PDIU | Sxa, Sxb, Sxc, N4 | Support of PDI optimised signalling in UP function (see clause 5.2.1A.2). |
| 6/3 | UDBC | Sxb, Sxc, N4 | Support of UL/DL Buffering Control |
| 6/4 | QUOAC | Sxb, Sxc, N4 | The UP function supports being provisioned with the Quota Action to apply when reaching quotas. |
| 6/5 | TRACE | Sxa, Sxb, Sxc, N4 | The UP function supports Trace (see clause 5.15). |
| 6/6 | FRRT | Sxb, N4 | The UP function supports Framed Routing (see IETF RFC 2865 [37] and IETF RFC 3162 [38]). |
| 6/7 | PFDE | Sxb, N4 | The UP function supports a PFD Contents including a property with multiple values. |
| 6/8 | EPFAR | Sxa, Sxb, Sxc, N4 | The UP function supports the Enhanced PFCP Association Release feature (see clause 5.18). |
| 7/1 | DPDRA | Sxb, Sxc, N4 | The UP function supports Deferred PDR Activation or Deactivation. |
| 7/2 | ADPDP | Sxa, Sxb, Sxc, N4 | The UP function supports the Activation and Deactivation of Pre-defined PDRs (see clause 5.19). |
| 7/3 | UEIP | Sxb, N4 | The UP function supports allocating UE IP addresses or prefixes (see clause 5.21). |
| 7/4 | SSET | N4 | UPF support of PFCP sessions successively controlled by different SMFs of a same SMF Set (see clause 5.22). |
| 7/5 | MNOP | Sxa, Sxb, Sxc, N4 | The UP function supports measurement of number of packets which is instructed with the flag 'Measurement of Number of Packets' in a URR. See also clause 5.2.2.2.1. |
| 7/6 | MTE | N4 | UPF supports multiple instances of Traffic Endpoint IDs in a PDI. |
| 7/7 | BUNDL | Sxa, Sxb, Sxc, N4 | PFCP messages bunding (see clause 6.5) is supported by the UP function. |
| 7/8 | GCOM | N4 | UPF support of 5G VN Group Communication. (See clause 5.23) |
| 8/1 | MPAS | N4 | UPF support for multiple PFCP associations to the SMFs in an SMF set (see clause 5.22.3). |
| 8/2 | RTTL | N4 | UPF supports redundant transmission at transport layer. |
| 8/3 | VTIME | Sxb,N4 | UP function support of quota validity time feature. |
| 8/4 | NORP | Sxa, Sxb, Sxc, N4 | UP function support of Number of Reports as specified in clause 5.2.2.2. |
| 8/5 | IPTV | N4 | UPF support of IPTV service (see clause 5.25) |
| 8/6 | IP6PL | N4 | UPF supports UE IPv6 address(es) allocation with IPv6 prefix length other than default /64 (including allocating /128 individual IPv6 addresses), as specified in clause 4.6.2.2 of of 3GPP TS 23.316 [57]. |
| 8/7 | TSCU | N4 | Time Sensitive Communication is supported by the UPF (see clause 5.26). |
| 8/8 | MPTCP | N4 | UPF support of MPTCP Proxy functionality (see clause 5.20) |
| 9/1 | ATSSS-LL | N4 | UPF support of ATSSS-LLL steering functionality (see clause 5.20) |
| 9/2 | QFQM | N4 | UPF support of per QoS flow per UE QoS monitoring (see clause 5.24.4). |
| 9/3 | GPQM | N4 | UPF support of per GTP-U Path QoS monitoring (see clause 5.24.5). |
| 9/4 | MT-EDT | Sxa | SGW-U support of reporting the size of DL Data Packets. (see clause 5.2.4.1). |
| 9/5 | CIOT | Sxb, N4 | UP function support of CIoT feature, e.g. small data packet rate enforcement. (see 5.4.15) |
| 9/6 | ETHAR | N4 | UPF support of Ethernet PDU Session Anchor Relocation (see clause 5.13.6). |
| Feature Octet / Bit: The octet and bit number within the Supported-Features IE, e.g. "5 / 1".  Feature: A short name that can be used to refer to the octet / bit and to the feature.  Interface: A list of applicable interfaces to the feature.  Description: A clear textual description of the feature. | | | |

\* \* \* End of Change \* \* \*