**3GPP TSG-SA5 Meeting #157 *S5-245876***

**Hyderabad, India, 14 - 18 October 2024**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **32.255** | **CR** | **0566** | **rev** | **1** | **Current version:** | **19.0.0** |  |
|  |
| *For* [***HELP***](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:***  | Rel-19 CR 32.255 Adding use of charging characteristics for CHF Group |
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| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | SA5 |
|  |  |
| ***Work item code:*** | CHFSeg |  | ***Date:*** | 2024-10-04 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** | The handling of Charging Charateristics are unclear and is m issing CHF Group ID. |
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| ***Summary of change:*** | Adding relavent information the charging characteristics may be used for, including CHFGroup ID. |
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| ***Consequences if not approved:*** | The use of charging characteristscs is unclear and could lead to interoperability issues.. |
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| ***Clauses affected:*** | A.1 |
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|  | **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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | Revision of S5-245651 |

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| **First change** |

A.1 General

A subscriber may have Charging Characteristics assigned to the subscription and/or the subscribed DNNs. Default Charging Characteristics may also be pre-provisioned on the SMF.

During PDU session establishment, when the SMF retrieves subscription data from the UDM, if a subscribed Charging Characteristics for the requested DNN is identified, it may override the SMF pre-provisioned Charging Characteristics.

The Charging Characteristics parameter consists of a string of 16 bits designated as behaviours , freely defined by Operators.

These behaviours may be things like:

- CHF addresses: to be used by the SMF, optionally with associated CHF instance ID(s), CHF set ID(s), CHF Group ID

- CHF selection method: this indicates how the SMF is to select the CHF instance e.g., local configuration, NRF (see clauses 5.1.8 and 5.1.9.2)

- Default charging method: indicates what charging method to be used for every PCC rule of the PDU Session, i.e., "online", "offline", or “offline only”

- Charging service: indicates if converged charging or offline only charging service is to be used

- Triggers: the default triggers for the PDU session e.g., tariff time, time limit, volume limit, number of charging condition changes

One usage may be as a behaviour index associated to the PDU session in converged charging as described by the example in the Table A.1.

**Table A.1: Example of Charging Characteristics behaviours for SMF**

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| **Behaviour index** | **5G data connectivity domain charging behaviours** |
| **CHF address** | **CHF selection method** | **Default charging method** | **Charging service** | **Time Limit** | **Volume Limit** | **Cond. changes** | **Tariff time** | **…** |
| 0 | CHF Set ID 1 | NRF | Online | Converged charging | 30 min | 2 MB | 2 | - | ... |
| 1 | Primary & secondary CHF addr. 1 & 2 | Local config. | Offline only | Converged charging | 15 min | 5 MB | 3 | 00:00 | … |
| 2 | CHF Group ID 1 | NRF | Offline | Converged charging | 30 min | 1 MB | 1 | - | ... |
| 3 | Primary & secondary CHF addr.3 & 4 | Local config. | Offline only | Offline only charging | 15 min | 10 MB | 3 | 00:00 | ... |
| 4 | CHF Group ID 2 | NRF | Online | Converged charging | 15 min | 3 MB | 1 | - | … |
| … | … | … | … | … | … | … | … | … | … |

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| **End of changes** |