**3GPP TSG-SA5 Meeting #156 *S5-244552***

Maastricht, Netherlands, 19 - 23 August 2024

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **32.255** | **CR** | **0556** | **rev** | **1** | **Current version:** | **17.13.0** |  |
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| *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-17 CR 32.255 Correction Unit Count Inactivity Timer for GERAN UTRAN access | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson LM | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17\_NIESGU | | | | |  | ***Date:*** | | | 2024-08-09 |
|  |  | | | |  | |  | | |  |
| ***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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
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| ***Reason for change:*** | | The Unit Count Inactivity Timer is applicable also for GERAN/UTRAN access. | | | | | | | | |
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| ***Summary of change:*** | | Unit Count Inactivity Timer as applicable also for GERAN/UTRAN. | | | | | | | | |
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| ***Consequences if not approved:*** | | Inconsistency between legacy and 5G may lead till interoperability issues. | | | | | | | | |
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| ***Clauses affected:*** | | 2 and C.3.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Revision of S5-244152 | | | | | | | | |

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| **First change** |

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TS 32.240: "Telecommunication management; Charging management; Charging architecture and principles".

[2] - [50] Void.

[51] 3GPP TS 32.298: "Telecommunication management; Charging management; Charging Data Record (CDR) parameter description".

[52] 3GPP TS 32.297: "Telecommunication management; Charging management; Charging Data Record (CDR) file format and transfer".

[53] Void.

[54] 3GPP TS 32.295: "Telecommunication management; Charging management; Charging Data Record (CDR) transfer".

[55-56] Void.

[57] 3GPP TS 32.290: "Telecommunication management; Charging management; 5G system; Services, operations and procedures of charging using Service Based Interface (SBI)".

[58] 3GPP TS 32.291: " Telecommunication management; Charging management; 5G system; Charging service, stage 3".

[59] - [99] Void.

[100] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[101] 3GPP TS 22.115: "Service aspects; Charging and billing".

[102] 3GPP TS 22.261: "Service requirements for next generation new services and markets".

[103] - [199] Void

[200] 3GPP TS 23.501:"System Architecture for the 5G System".

[201] 3GPP TS 23.502:"Procedures for the 5G System".

[202] 3GPP TS 23.503:"Policy and Charging Control Framework for the 5G System; Stage 2".

[203] 3GPP TS 23.316: "Wireless and wireline convergence access support for the 5G System (5GS)".

[204] Void

[205] 3GPP TS 29.060: "General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface"

[206] - [299] Void

[300] - [399] Void.

[400] - [499] Void.

[500] - [599] Void.

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| **Second change** |

C.3.2.1 Definition of 5G data connectivity charging information

The charging information defined in clause 6.2.1 is used for the SMF+PGW-C to support GERAN/UTRAN access.

The specific PDU session charging information when UE is connected to SMF+P-GW-C via GERAN/UTRAN is provided as defined in table 6.2.1.2.1, with the differences that PDU session is replaced by PDP context in fields description and other differences described under following table C.3.2.1-1:

**Table C.3.2.1-1: Structure of PDU Session Charging Information**

|  |  |  |
| --- | --- | --- |
| **Information Element** | **Category** | **Description** |
| Charging Id | OM | Described in table 6.2.1.2.1. |
| Home Provided Charging Id | - | This field is not applicable. |
| User Information | OM | Described in table 6.2.1.2.1. |
| User Identifier | OC | Described in table 6.2.1.2.1. |
| User Equipment Info | OC | Described in table 6.2.1.2.1. |
| Unauthenticated Flag | OC | Described in table 6.2.1.2.1. |
| Roamer In Out | OC | Described in table 6.2.1.2.1. |
| User Location Info | OC | Described in table 6.2.1.2.1.  The "User Location Information" (ULI) IE indicating CGI/SAI/RAI shall apply as described in TS 29.060 [205] clause 7.7.51. |
| MA PDU Non 3GPP User Location info | - | This field is not applicable. |
| User Location Time | OC | Described in table 6.2.1.2.1 |
| MA PDU Non 3GPP User Location Time | - | This field is not applicable. |
| UE Time Zone | OC | Described in table 6.2.1.2.1. |
| Presence Reporting Area Information | OC | This field is not applicable. |
| PDU Session Information | OC | Described in table 6.2.1.2.1. |
| PDU Session ID | M | Described in table 6.2.1.2.1. |
| Network Slice Instance Identifier | - | This field is not applicable. |
| PDU Type | OM | Described in table 6.2.1.2.1. |
| PDU Address | OC | Described in table 6.2.1.2.1. |
| PDU Ipv4 Address | OC | Described in table 6.2.1.2.1. |
| PDU IPv6 Address with Prefix | OC | Described in table 6.2.1.2.1. |
| PDU Address prefix length | OC | Described in table 6.2.1.2.1. |
| IPv4 Dynamic Address Flag | OC | Described in table 6.2.1.2.1. |
| IPv6 Dynamic Address Flag | OC | Described in table 6.2.1.2.1. |
| SSC Mode | - | This field is not applicable. |
| MA PDU session information | - | This field is not applicable. |
| MA PDU session indicator | - | This field is not applicable. |
| ATSSS capability | - | This field is not applicable. |
| SUPI PLMN ID | OC | Described in table 6.2.1.2.1. |
| Serving Network Function ID | OC | Described in table 6.2.1.2.1. |
| Serving Network Function Functionality | M | Described in table 6.2.1.2.1.  This field holds “SGSN” when SMF+PGW-C serves GERAN/UTRAN access. |
| Serving Network Function Name | OC | Described in table 6.2.1.2.1. |
| Serving Network Function Addresses | OC | Described in table 6.2.1.2.1. |
| Serving Network Function FQDN | OC | Described in table 6.2.1.2.1. |
| Serving Network Function PLMN ID | OC | Described in table 6.2.1.2.1. |
| AMF Identifier | - | This field is not applicable. |
| Serving CN PLMN ID | OC | Described in table 6.2.1.2.1. |
| RAT Type | OC | Described in table 6.2.1.2.1. |
| MA PDU Non 3GPP RAT Type | - | This field is not applicable. |
| Data Network Name Identifier | M | Described in table 6.2.1.2.1, with DNN replaced by APN. |
| DNN Selection Mode | - | This field is not applicable. |
| Authorized QoS Information | OC | Described in table 6.2.1.2.1.  QoS information mapped according to interaction with PCC as specified in TS 23.502 [201] clause 4.11.0a.2. |
| Subscribed QoS Information | OC | Described in table 6.2.1.2.1.  QoS information mapped according to interaction with PCC as specified in TS 23.502 [201] clause 4.11.0a.2. |
| Authorized Session-AMBR | OC | Described in table 6.2.1.2.1. |
| Subscribed Session-AMBR | OC | Described in table 6.2.1.2.1. |
| PDU session start Time | OC | Described in table 6.2.1.2.1. |
| PDU session stop Time | OC | Described in table 6.2.1.2.1. |
| Diagnostics | OC | Described in table 6.2.1.2.1. |
| Enhanced Diagnostics | OC | Described in table 6.2.1.2.1. |
| Charging Characteristics | OC | Described in table 6.2.1.2.1. |
| Charging Characteristics  Selection Mode | OC | Described in table 6.2.1.2.1. |
| 3GPP PS Data Off Status | OC | Described in table 6.2.1.2.1. |
| Session Stop Indicator | - | This field is not applicable. |
| Redundant Transmission  Type | - | This field is not applicable. |
| PDU Session pair ID | - | This field is not applicable. |
| Unit Count Inactivity Timer | OC | Described in table 6.2.1.2.1. |
| RAN Secondary RAT Usage Report | - | This field is not applicable. |

The specific PDU Container Information when UE is connected to SMF+P-GW-C via GERAN/UTRAN is provided as defined in table 6.2.1.3.1, with the differences described under following table C.3.2.1-2:

**Table C.3.2.1-2: Structure of PDU Container Information**

| **Information Element** | **Category** | **Description** |
| --- | --- | --- |
| Time of First Usage | OC | Described in table 6.2.1.3.1. |
| Time of Last Usage | OC | Described in table 6.2.1.3.1. |
| QoS Information | OC | Described in table 6.2.1.3.1. |
| QoS Characteristics | OC | Described in table 6.2.1.3.1. |
| AF Charging Identifier | OC | Described in table 6.2.1.3.1. |
| AF Charging Id String | OC | Described in table 6.2.1.3.1. |
| User Location Information | OC | Described in table 6.2.1.3.1. |
| UE Time Zone | OC | Described in table 6.2.1.3.1. |
| Presence Reporting Area Information | OC | Described in table 6.2.1.3.1. |
| Serving Network Function ID | OC | Described in table 6.2.1.3.1. |
| RAT Type | OC | Described in table 6.2.1.3.1. |
| Sponsor Identity | OC | Described in table 6.2.1.3.1. |
| Application Service Provider Identity | OC | Described in table 6.2.1.3.1. |
| Charging Rule Base Name | OC | Described in table 6.2.1.3.1. |
| 3GPP PS Data Off Status | OC | Described in table 6.2.1.3.1. |
| MA PDU Steering functionality | - | This field is not applicable. |
| MA PDU Steering mode | - | This field is not applicable. |

The specific Roaming QBC information is described in table B.2.2.1.2-1 and QFI Container Information is described in table B.2.2.1.3-1 for when UE is connected to SMF+P-GW via GERAN/UTRAN, with the differences that PDU session is replaced by PDP context in fields description.

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| **End of changes** |