**3GPP TSG-SA5 Meeting #138-e *S5-214331rev1***

**e-meeting, 23 - 31 August 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.290** | **CR** | **0165** | **rev** | **1** | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *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:*** | Update service description regarding GERAN and UTRAN access | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17\_NIESGU | | | | |  | ***Date:*** | | | 2021-08-13 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The new clause (Annex C.2) was added to describe the Nchf interface behaviors for the GERAN/UTRAN access in TS 32.255.  The use of GERAN/UTRAN access converged chargign service for GERAN/UTRAN access is added, as what was stated for ConvergedCharging service. | | | | | | | | |
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| ***Summary of change:*** | | Add reference of annex C of TS 32.255.  The reference of 32.260 for IMS node charging is added. | | | | | | | | |
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| ***Consequences if not approved:*** | | The use of N40 for GERAN/UTRAN access is not complete. The reference of Nchf interface for IMS node is missing in clause of Convergedcharging service. | | | | | | | | |
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| ***Clauses affected:*** | | 6.5.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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| **First modification** |

## 6.5 Nchf\_OfflineOnlyCharging service

### 6.5.1 General

**Service description:** The OfflineOnlyCharging service provides charging for session based NF services. This OfflineCharging service offers charging information record generation.

The following table shows the CHF Services and CHF Service Operations.

Table 6.5.1-1: NF services provided by the CHF

|  |  |  |  |
| --- | --- | --- | --- |
| Service Name | Service Operations | Operation  Semantics | Example Consumer(s) |
| Nchf\_OfflineOnlyCharging | Create | Request/Response | SMF, IMS-Node |
| Update | Request/Response | SMF, IMS-Node |
| Release | Request/Response | SMF, IMS-Node |

The applicability of OfflineOnlyCharging service to SMF as NF consumer is specified in TS 32.255 [30] for 5G data connectivity domain charging. The applicability of OfflineOnlyCharging service to IMS-Node as NF consumer is specified in TS 32.260 [31] for IMS charging.

The input and output parameters described in the clauses below are common to all NF Consumers. The usage of these common parameters and additional NF Consumer specific parameters are specified in dedicated charging specifications.

Based on operator’s policy, SMF+PGW-C consumes Nchf\_OfflineOnlyCharging service supporting UE accessing via GERAN/UTRAN. the Nchf enhancements are described in Annex C of TS 32.255 [30].

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| **Next modification** |

## 6.2 Nchf\_ConvergedCharging service

### 6.2.1 General

**Service description:** The ConvergedCharging service provides charging for session and event based NF services. This ConvergedCharging service offers charging:

- With quota management (online; this includes support for both blocking mode and non-blocking mode)

- Without quota management (offline)

- Charging information record generation

The following table shows the CHF Services and CHF Service Operations.

Table 6.2.1-1: NF services provided by the CHF

|  |  |  |  |
| --- | --- | --- | --- |
| Service Name | Service Operations | Operation  Semantics | Example Consumer(s) |
| Nchf\_ConvergedCharging | Create | Request/Response | SMF, SMSF, AMF, SMF+PGW-C, NEF, IMS-Node, CEF, MnS Producer |
| Update | Request/Response | SMF, SMF+PGW-C, IMS-Node |
| Release | Request/Response | SMF, SMSF, AMF, NEF, SMF+PGW-C, IMS-Node |
| Notify | Notify | SMF, SMF+PGW-C, IMS-Node |

The input and output parameters described in the clauses below are common to all NF Consumers. The usage of these common parameters and additional NF Consumer specific parameters are specified in dedicated charging specifications.

The applicability of ConvergedCharging service to IMS-Node as NF consumer is specified in TS 32.260 [31] for IMS charging.

Based on operator’s policy, SMF+PGW-C consumes Nchf\_ConvergedCharging service supporting GERAN/UTRAN, as specified in Annex C TS 32.255 [30].

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| **The end of change.** |