**3GPP TSG-SA5 Meeting #138-e *S5-214070***

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

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** |  | **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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **x** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The CHF is part of Converged Charging system and is missing in the list of Converged charging functions chapter  The CTF is part of the 5G charging architecture and has the same role as in previous charging architectures, which is still not clarified | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add CHF in the Converged charging functions chapter  Remove Editor's Note associated to CTF in Converged charging functions | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | It can be interpreted the charging architecture in 5G is not completly defined | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.3.2.2.4, 4.3.3.1, 4.3.3.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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** |

##### 4.3.2.2.4 Account Balance Management Function

The Account Balance Management Function (ABMF) is the location of the subscriber’s account balance within the OCS or the CCS. The ABMF is put into functional context within TS 32.296 [53].

|  |
| --- |
| **Next change** |

#### 4.3.3.1 Charging Trigger Function (CTF)

The Charging Trigger Function (CTF) interacts with the Charging Function (CHF) of the Converged Charging System (CCS) using Nchf interface for consuming CHF services as defined in TS 32.290 [57]:

- converged charging (Nchf\_ConvergedCharging service) wich operates:

- with quota management (online charging);

- without quota management (offline charging);

- offline only charging (Nchf\_OfflineOnlyCharging service).

The behavior of the Charging Trigger Function (CTF) embedded in the service element, sub-system component or Core Network element is specified in the respective middle tier charging TSs.

|  |
| --- |
| **Next change** |

#### 4.3.3.2 Converged charging system (CCS)

##### 4.3.3.2.0 General

The converged charging system (CCS) consists of four distinct modules, namely the CHF, the Account Balance Management Function (ABMF), the Charging Gateway Function (CGF) and the Rating Function (RF).

##### 4.3.3.2.1 Charging Function (CHF)

The CHF includes:

- Online Charging Function (OCF) specified in TS 32.296 [53], providing quota management functionality under Credit-Control terminology.

- Charging Data Function (CDF) specified in clause 4.3.1.2,providing CDRs generation functionality for charging events received from the CTF or CEF via Nchf.

##### 4.3.3.2.2 Account Balance Management Function (ABMF)

The ABMF is described in clause 4.3.2.2.4.

##### 4.3.3.2.3 Rating Function (RF)

The Rating Function (RF) is described in clause 4.3.2.2.3.

##### 4.3.3.2.4 Charging Gateway Function (CGF)

The Charging Gateway Function (CGF) is described in clause 4.3.1.3.

|  |
| --- |
| **End of changes** |