**3GPP TSG-SA5 Meeting #133e *S5-205067rev1***

**e-meeting 12th - 21st October 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **32.290** | **CR** | **0131** | **rev** | **1** | **Current version:** | **16.5.0** |  |
|  |
| *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:***  |

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| Add SCP interaction |

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| ***Source to WG:*** | Huawei |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | TEI16, 5GS\_Ph1-SBI\_CH |  | ***Date:*** | 2020-09-30 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-16 |
|  | *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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | In TS 32.290 clause 6.1, whose title is “NF Service Framework”, it mentions that 5G Charging Function supports to interact with NRF. It doesn’t align with the new update in TS 23.501 clause 7.1 “Network Function Serivce Framework”, which states the following principles:1. All the 5GC NFs support both direct communication and indirect communication.
2. In Direct Communication, the NF Service consumer performs discovery of the target NF Service producer by local configuration or via NRF.
3. In Indirect Communication, the NF Service consumer communicates with the target NF Service producer via a SCP.
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| ***Summary of change:*** | Add description about direct communcation and indirect communication in TS 32.290 to keep consistency with TS 23.501. |
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| ***Consequences if not approved:*** | Can not align with other specifications. |
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| ***Clauses affected:*** | 3.3, 6.1 |
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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 ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| **1st Change** |

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [100] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [100].

5GC 5G Core Network

5GS 5G System

AMF Access and Mobility Management Function

CCS Converged Charging System

CHF Charging Function

IEC Immediate Event Charging

NF Network Function

PCF Policy Control Function

SBI Service based Interface

SCP Service Communcation Proxy

SMSF Short Message Service Function

SMF Session Management Function

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| **Second change** |

# 6 Service definition

## 6.1 NF service framework

5G Charging Function supports to interact with NRF, as specified in clause 7.1 of TS 23.501 [201] and clauses 4.17 and 5.2.7 of TS 23.502 [202]to enable following functionalities:

- CHF NF registration.

- CHF update.

- CHF deregistration.

- CHF NRF discovery by CHF service consumer.

The services specified in clause 7.2.6 TS 23.501 [201] may be used and the interaction is described in TS 29.510 [300]:

- Nnrf\_NFManagement.

- Nnrf\_NFDiscovery.

- Nnrf\_AccessToken.

The Nnrf\_NFManagement\_NFRegister service invoked by CHF for CHF registration described in the TS 29.510 [300] may include in particular:

- Range(s) of SUPIs.

- Range(s) of GPSIs.

- Range(s) of PLMNs.

- CHF Group ID.

These parameters may also be used by CHF service consumer(s) invoking the Nnrf\_NFDiscovery service for the CHF discovery.

5G Charging Function supports to interact with NF(s) using both direct communcation and indirect communication, as described in clause 7.1 in TS 23.501 [200]. In addition to the interaction with NRF as described in this clause, the CHF can interact with SCP in indirect communication as described in 6.3.1 in TS 23.501 [200].

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| **End of change** |