3GPP TSG SA WG5 Meeting 137-e TDoc S5-213277

electronic meeting, online, 10 - 19 May 2021

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** | **-** | **Current version:** | **16.4.0** |  |
|  | | | | | | | | |
| *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:*** | Correction on Reference Points | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***Date:*** | | | 2021-04-30 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **C** |  | | | | | ***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)* | |
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| ***Reason for change:*** | | The set of Reference points defined in TS 23.501 clause 4.2.7 includes reference Points to CHF, namely N40 (SMF), N41 and N42 (AMF), therefore it could be interpreted NEF does not support charging. | | | | | | | | |
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| ***Summary of change:*** | | Introduce reference point representation for NEF Converged charging architecture | | | | | | | | |
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| ***Consequences if not approved:*** | | It could be interpreted NEF charging is not supported in 5G due to partial view of charging architecture. | | | | | | | | |
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| ***Clauses affected:*** | | 3.2, 4.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 32.240 CR#0426 | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **First change** |

## 3.2 Symbols

For the purposes of the present document, the following symbols apply:

Bea Reference point for the CDR file transfer from the Exposure function API CGF to the BD.

Ga Reference point for CDR transfer between a CDF and the CGF.

Nchf Service based interface exhibited by CHF.

N44 Reference point between the NEF and the CHF

Rf Offline charging reference point between a SCEF and the CDF.

Ro Online charging reference point between a SCEF and the CDF.

T8 Reference point between the SCEF and SCS/AS.

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| **Next change** |

## 4.4 Northbound API converged charging architecture

The architectural options for Northbound API converged charging are depicted in figure 4.4.1 in service-based representation:



Figure 4.4.1: Northbound API converged charging architecture

Architectural options of figure 4.4.1 apply to any Northbound API converged charging architecture of this clause.

Details on the interfaces and functions can be found in TS 32.240 [1] for the general architecture components, Ga is described in clause 5.2.4 and Bea in clause 5.2.5 of this document, and Nchf is described in TS 32.290 [57].

Figure 4.4.2 depicts the Northbound API converged charging architecture for non-roaming in reference point representation:



**Figure 4.4.2: Northbound API converged charging architecture non-roaming reference point representation**

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| **End of changes** |