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| **3GPP TSG-SA5 Meeting #140-e *S5-216304rev1***  **e-meeting,** **15 - 24 November 2021**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | *CR-Form-v12.1* | | | | | | | | | | **CHANGE REQUEST** | | | | | | | | | |  | | | | | | | | | |  | **32.277** | **CR** | **0034** | **rev** | **1** | **Current version:** | **16.0.0** |  | |  | | | | | | | | | | *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** |
|  | | | | | | | | | | | | | | | | | |
| ***Title:*** | Add converged charging architecture for ProSe | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | |
| ***Source to WG:*** | CATT | | | | | | | | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | |
| ***Work item code:*** | 5G\_ProSe\_CH | | | | | | | | |  | ***Date:*** | | | 2021-11-5 | | | |
|  |  | | | | |  | | | | |  | | |  | | | |
| ***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:*** | | There is no architecture for ProSe converged charging | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Summary of change:*** | | Adding converged charging architecture for 5G ProSe | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Consequences if not approved:*** | | Charging of 5G ProSe will not be supported for the converged charging | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Clauses affected:*** | | 4.x(new) | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | | | | | | | | |

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| **1st modified section** |

## 4.x ProSe converged charging architecture

The ProSe converged charging architecture can be achieved under the alternatives:

- Charging Trigger Function (CTF) based, including distributed CTF, as depicted in figure 4.x-1 and 4.x.2.

- Charging Enablement Function (CEF) based, depicted in figure 4.x-3.



Figure 4.x.-1: ProSe converged charging architecture (CTF)



Figure 4.x-2: ProSe converged charging architecture over PC5 (Distributed CTF)



Figure 4.x.3: ProSe converged charging architecture (CEF)

Editor's Note: The architecture figure should follow up the decision of the common CEF issues.

Editor's Note: The details for the charging information transfer from 5G DDNMF via Npcx to CEF are ffs.

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| **Next modified section** |