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| **3GPP TSG-SA5 Meeting #140-e *S5-216304rev1*****e-meeting,** **15 - 24 November 2021**

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| *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 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-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:*** |  |
|  |  |
| ***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** |