**3GPP TSG-SA WG6 Meeting #47-e *S6-220XXX***

**e-meeting, 14th – 22nd February 2022 (revision of S6-220235)**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **23.289** | **CR** | **0042** | **rev** | **1**  | **Current version:** | **18.0.0** |  |
|  |
| *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 | **X** | Radio Access Network |  | Core Network |  |

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|  |
| ***Title:***  | Architectural model over 5G ProSe |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | S6 |
|  |  |
| ***Work item code:*** | MCOver5GProSe |  | ***Date:*** | 2022-02-08 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-18 |
|  | *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)* |
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| ***Reason for change:*** | In TR 23.783, MC service support over 5G ProSe was discussed and concluded. SA2 defined the architectural reference model for 5G ProSe in TS 23.304. So this feature is considered as the basic feature for MC service. This CR proposes to add the architectural model over 5G ProSe, based on TR conclusion on this topic.  |
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| ***Summary of change:*** | Adding the architectural model over 5G ProSe. |
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| ***Consequences if not approved:*** | No related content about architectural model over 5G ProSe in current TS.  |
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| ***Clauses affected:*** | 6.2, 6.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:*** |  |

\* \* \* \* First change \* \* \* \*

6.2 On-network architectural model

6.2.1 On-network architectural model diagram

Figure 6.2.1-1 below is the on-network architectural model for the MC system solution, where the MC system provides one or more MC services via a single PLMN.

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**Figure 6.2.1-1: On-network architectural model**

6.2.2 Application services layer

6.2.2.1 Overview

The application services layer includes application functions of one or more MC services and any required supporting functions grouped into common services core.

6.2.2.2 Common services core

Common services core is composed of the functional entities described in the common functional model in clause 5.3.

6.2.2.3 MC services

MC services are composed of the functional entities described in the corresponding MC service functional models in clause 5.

6.2.3 SIP core

The SIP core provides rendezvous (contact address binding and URI resolution) and service control (application service selection) functions, as described in clause 5.3.

6.2.4 5GS

The 5GS provides data connectivity and services with QoS control for the support of MC service sessions.

6.2.5 UE 1

UE 1 is an MC service UE in on-network mode supporting data connectivity and application(s) related to one or more MC services over the 5GS, or an UE that acts as 5G ProSe UE-to-network relay, or both of the above. It is composed of the corresponding MC service functional entities described in clause 5.

6.2.X UE 2

UE 2 is a device using 5G ProSe UE-to-network relay, and supporting application(s) related to one or more MC services. It is composed of the corresponding MC service functional entities described in clause 5.

\* \* \* \* Second change \* \* \* \*

6.X Off-network architectural model

6.X.Y Off-network architectural model diagram

Figure 6.X.Y-1 shows the off-network architectural model for the MC system solution for 5G inter-UE communication, where no relay function is used.

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**Figure 6.X.Y-1: Off-network architectural model for 5G inter-UE communication where no relay function is used**

Figure 6.X.Y-2 shows the off-network architectural model for the MC system solution for configuration management and group management. The description in clause 9.3.1 of 3GPP TS 23.280 [3] applies.

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**Figure 6.X.Y-2: Off-network architectural model for configuration management and group management**

6.X.Y UE 3

The UE 3 is a UE using 5G ProSe and supporting application(s) related to off-network MC service, and it is composed of the corresponding MC service functional entities described in clause 5.

6.X.Y UE 4

The UE 4 represents one or more UEs with the same functionality as UE 3.

6.X.Y Offline common services server

The offline common services server supports configuration applications related to MC service, and it is composed of the corresponding MC service functional entities described in clause 5.

\* \* \* \* End of changes \* \* \* \*