**3GPP TSG-SA WG6 Meeting #48-eS6-220614**

**e-meeting, 5th – 14th April 2022 (revision of S6-22xxxx)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **23.289** | **CR** | **0051** | **rev** | **1** | **Current version:** | **18.1.0** |  |
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| *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 | **x** |

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| ***Title:*** | Update to service continuity procedure from 5G ProSe UE-to-network relay to an MBS session | | | | | | | | | |
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| ***Source to WG:*** | Ericsson, Samsung | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MCOver5GProSe | | | | |  | ***Date:*** | | | 2022-04-05 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **C** |  | | | | | ***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 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:*** | | This CR addresses the path switching procedure from 5G ProSe UE-to-network relay to a unicast PDU session, and subsequently to an MBS session. The procedure is aligned with 3GPP TS 23.304, as service continuity upon direct switching between a 5G ProSe UE-to-network relay to an MBS session is not yet supported. The procedure is updated to include the case when the 5G ProSe UE-to-network relay is done via the support of N3IWF, where subsequent steps are to be considered in this case. | | | | | | | | |
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| ***Summary of change:*** | | * The term service continuity is changed to path switch. * The proper trigger to initiate the switch to Uu-interface is described. * The path switch procedure is considered for the case when 5G ProSe UE-to-network relay is done via the support of N3IWF. | | | | | | | | |
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| ***Consequences if not approved:*** | | A clear description of the trigger for the path switch from NR PC5 to Uu-interface is not included. Furthermore, the available procedure is not completely aligned with 3GPP TS 23.304. | | | | | | | | |
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| ***Clauses affected:*** | | 7.3.3.8.4.3 | | | | | | | | |
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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:*** | |  | | | | | | | | |

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

###### 7.3.3.8.4.3 Path switch from a 5G ProSe UE-to-network relay to MBS session

This clause describes the procedure for path switch from a 5G ProSe UE-to-network relay to MBS session.

Figure 7.3.3.8.4.3-1 illustrates path switch from a 5G ProSe UE-to-network relay to MBS session.



Figure 7.3.3.8.4.3-1 Path switch from a 5G ProSe UE-to-network relay to MBS session.

1. The remote MC service client is receiving the MC service media using the unicast delivery via a 5G ProSe UE-to-Network relay UE. This step applies to both 5G ProSe Layer-3 and Layer-2 UE-to-network relay.

2. Based on the (remote) MC service UE`s path selection policies described in 3GPP TS 23.304 [17], and once the NG-RAN based measurement report discussed in 3GPP TS 38.331 [y] is triggered due to network coverage detection, the (remote) MC service UE connects to the network via the Uu-interface.

NOTE 1: The path selection policies may be pre-configured in the MC service UE or provided by the PCF, as defined in 3GPP TS 2317304 [17].

3. For the case of 5G ProSe Layer-3 UE-to-network relay without the support of N3IWF, the (remote) MC service client performs SIP re-registration over Uu and initiates the IMS service continuity procedures as described in Annex X. Further, the MC service server sends MC service communications using unicast delivery which traverses over Uu to the remote MC service client.

NOTE 2: For the case of 5G ProSe Layer-3 UE-to-network relay via the support of N3IWF, the (remote) MC service UE performs registration procedures towards the 5GS to establish the necessary resources over the Uu-interface.

NOTE 3: For the case of 5G ProSe Layer-2 UE-to-network relay, the 5GC can provide the service continuity for the (remote) MC service UE with the UE's original IP address, as described in 3GPP TS 23.304 [17].

4. The MC service client receives the MC service communication over a unicast PDU session.

5. Optionally, the MC service server may send the MBS service announcement to the (remote) MC service client with the information of the MBS session.

NOTE 4: The information of the MBS session can be available at the (remote) MC service client due to a previous MC service signalling via the relay UE.

6a. If a multicast MBS session has been announced, the MC service UE performs a UE session join towards the 5GC using the MBS session information, and the MC service client may send a UE session join notification towards the server.

6b. If a broadcast MBS session has been announced, the MC service client start monitoring the reception quality of the broadcast MBS session.

7. The MC service client sends an MBS listening status report which indicates the MBS reception quality associated with the TMGI is sufficient to receive media.

NOTE 4: It is implementation specific whether the MBS session reception quality level is determined per MBS session, per media stream or per MBS QoS flow level via e.g., measurements of radio level signalling such as the reference signals from the NG-RAN node(s), packet loss.

8. Based on the report received from MC service client in step 7, the MC service server determines to stop sending the MC service communications (e.g., DL media, application layer control signalling) using the unicast delivery. Further, the MC server sends the MC service communications via the MBS session.

9. The MC service client receives the MC service communications from the MC service server via the MBS session.

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