**3GPP TSG-CT WG1 Meeting #141eC1-232268**

**Online 17– 21 April 2023**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.554** | **CR** | **0303** | **rev** | **1** | **Current version:** | **18.0.0** |  |
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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 |  |

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| ***Title:*** | L2 U2U relay selection correction | | | | | | | | | |
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| ***Source to WG:*** | OPPO | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_ProSe\_Ph2 | | | | |  | ***Date:*** | | | 2023-03-22 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | For the current L2 U2U relay selection, there is the following:  2) if the 5G ProSe end UE is expected to use 5G ProSe layer-2 UE-to-UE relay, the subset of the PLMN(s) provided by the 5G ProSe layer-2 UE-to-UE relay UE shall be in the list of PLMNs in which the UE is authorized to use a 5G ProSe layer-2 UE-to-UE relay UE; and  3) if the 5G ProSe end UE is expected to use 5G ProSe layer-2 UE-to-UE relay, the 5G ProSe end UE selected PLMN shall be in the list of PLMNs in which the UE is authorized to use a 5G ProSe layer-2 UE-to-UE relay UE and in the subset of the PLMN(s) provided by the 5G ProSe layer-2 UE-to-UE relay UE;  The above 2 bullets are not applicable to L2 U2U relay. So they should be removed.  Besides, in 23.304 currently the authorization for L2 end UE is missing so the corresponding configuration in 5.2.7 is removed to wait for stage 2 update. | | | | | | | | |
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| ***Summary of change:*** | | Remove the L2 U2U relay selection not applicable to L2 U2U relay. | | | | | | | | |
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| ***Consequences if not approved:*** | | The current description for L2 U2U relay selection is wrong. | | | | | | | | |
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| ***Clauses affected:*** | | 5.2.7, 8a.2.2.2 | | | | | | | | |
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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 \* \* \* \*

5.2.7 Configuration parameters for 5G ProSe UE-to-UE relay

The configuration parameters for the role of a ProSe UE-to-UE relay UE over PC5 reference point consist of:

a) a validity timer for the validity of the configuration parameter for 5G ProSe UE-to-UE relay over PC5 interface;

b) a list of PLMNs in which the UE is authorised to relay traffic for 5G ProSe layer-3 end UEs when the UE is served by NG-RAN and in each PLMN, where that authorization also authorizes the use of both 5G ProSe UE-to-UE relay discovery Model A and 5G ProSe UE-to-network relay discovery Model B;

c) a list of PLMNs in which the UE is authorised to relay traffic for 5G ProSe layer-2 end UEs when the UE is served by NG-RAN and in each PLMN, where that authorization also authorizes the use of both 5G ProSe UE-to-UE relay discovery Model A and 5G ProSe UE-to-network relay discovery Model B;

d) the default destination layer-2 ID(s) for sending the discovery signalling for announcement and for receiving the discovery signalling for solicitation;

NOTE 1: Which default destination layer-2 ID is selected is up to UE implementation when there are more than one default destination layer-2 ID.

e) a User info ID for the UE-to-UE relay discovery;

f) one or more relay service code(s) for the UE-to-UE relay discovery and for each relay service code:

1) security related content for 5G ProSe UE-to-UE relay discovery;

Editor’s Note: (CR 0244, WIC 5G\_ProSe\_Ph2) Security related contents for 5G ProSe UE-to-UE relay discovery will be confirmed by SA3 working on TS 33.503 for release-18.

2) an indication of whether the relay service code is offering 5G ProSe layer-2 or layer-3 UE-to-UE relay service;

g) the radio parameters of the 5G ProSe UE-to-UE relay discovery applicable per geographical area with an indication of whether these radio parameters are "operator managed" or "non-operator managed" when the UE is not served by NG-RAN;

h) the radio parameters of the 5G ProSe direct communication applicable per geographical area with an indication of whether these radio parameters are "operator managed" or "non-operator managed" when the UE is not served by NG-RAN; and

i) the default PC5 DRX configuration for discovery as specified in 3GPP TS 38.331 [13] when the UE is not served by NG-RAN.

Editor’s Note: (CR 0244, WIC 5G\_ProSe\_Ph2) It is FFS whether to define the separate configuration parameters for 5G ProSe UE-to-UE relay communication or to re-use the configuration parameters for 5G ProSe direct communication.

Editor’s Note: (CR 0244, WIC 5G\_ProSe\_Ph2) It is FFS whether to define the configuration parameters for the 5G ProSe UE-to-UE relay UE when the UE is not served by NG-RAN, for example, the AS configuration including a list of SLRB mapping rules applicable when the UE is not served by NG-RAN.

The configuration parameters for the role of a 5G ProSe end UE consist of:

a) a validity timer for the validity of the configuration parameters for 5G ProSe end UE;

b) an indication whether the UE is authorized to use a 5G ProSe layer-3 UE-to-UE relay UE, where that authorization also authorizes the use of both 5G ProSe UE-to-UE relay discovery Model A and 5G ProSe UE-to-network relay discovery Model B;

c) void;

d) default destination layer-2 ID(s) for sending the discovery signalling for solicitationand for receiving the discovery signalling for announcement;

NOTE 2: Which default destination layer-2 ID is selected is up to UE implementation when there are more than one default destination layer-2 ID.

e) a user info ID for the UE-to-UE relay discovery;

f) one or more relay service code(s) for the UE-to-UE relay discovery and for each relay service code:

1) security related content for 5G ProSe UE-to-UE relay discovery;

Editor’s Note: (CR 0244, WIC 5G\_ProSe\_Ph2) Security related contents for 5G ProSe UE-to-UE relay discovery will be confirmed by SA3 working on TS 33.503 for release-18.

2) an indication of whether the relay service code is offering 5G ProSe layer-2 or layer-3 UE-to-UE relay service;

g) the radio parameters of the 5G ProSe Relay Discovery applicable per geographical area with an indication of whether these radio parameters are "operator managed" or "non-operator managed" when the UE is not served by NG-RAN;

h) the radio parameters of the 5G ProSe direct communication applicable per geographical area with an indication of whether these radio parameters are "operator managed" or "non-operator managed" when the UE is not served by NG-RAN; and

i) the default PC5 DRX configuration for discovery as specified in 3GPP TS 38.331 [13] when the UE is not served by NG-RAN.

Editor’s Note: (CR 0244, WIC 5G\_ProSe\_Ph2) It is FFS whether to define the separate configuration parameters for 5G ProSe end UE for 5G ProSe UE-to-UE relay communication or to re-use the configuration parameters for 5G ProSe direct communication.

Editor’s Note: (CR 0244, WIC 5G\_ProSe\_Ph2) It is FFS whether to define the configuration parameters for 5G ProSe end UE for 5G ProSe UE-to-UE relay communication when the UE is not served by NG-RAN, for example, the AS configuration including a list of SLRB mapping rules applicable when the UE is not served by NG-RAN.

\* \* \* Next Change \* \* \* \*

#### 8a.2.2.2 UE-to-UE relay selection procedure initiation

The 5G ProSe end UE shall trigger the UE-to-UE relay selection procedure if the following conditions are met:

a) the UE is authorised to act as a 5G ProSe end UE towards a 5G ProSe UE-to-UE relay UE as specified in clause 5.2.7:

1) if the 5G ProSe end UE is expected to use 5G ProSe layer-3 UE-to-UE relay, the indication that the UE is authorized to use a 5G ProSe layer-3 UE-to-UE relay UE shall be set;

b) the UE has obtained a list of 5G ProSe UE-to-UE relay UE candidate(s) fulfilling ProSe layer criteria with the monitoring procedure for UE-to-UE relay discovery as specified in clause 8a.2.1.2.3 or the discoverer procedure for UE-to-UE relay discovery as specified in clause 8a.2.1.3.4;

c) the UE has obtained a list of 5G ProSe UE-to-UE relay UE candidate(s) fulfilling lower layers criteria as specified in 3GPP TS 38.331 [13]; and

Editor's note: The mentioned reference 3GPP TS 38.331 [13] is subject to be updated based on RAN work.

d) the user info ID of the target 5G ProSe end UE that the UE is interested in is included in the PROSE PC5 DISCOVERY message for UE-to-UE relay discovery announcement (for discovery model A) or in the PROSE PC5 DISCOVERY message for UE-to-UE relay discovery response (for discovery model B).

Editor's note: The above conditions are subject to updates based on SA2 conclusions for the configuration parameters for the 5G ProSe UE-to-UE relay.

\* \* \* End of Changes \* \* \* \*