**3GPP TSG-CT WG1 Meeting #137-eC1-22xxxx**

**E-Meeting, 18th – 26th August 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.554** | **CR** | **0151** | **rev** | **1** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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:*** | Corrections related to 5G ProSe layer-3 UE-to-network relay with N3IWF support | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_ProSe | | | | |  | ***Date:*** | | | 2022-07-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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)* | |
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| ***Reason for change:*** | | Currently in TS 24.554, some statements in clause 8.2.7.1 related to the 5G ProSe layer-3 UE-to-network relay with N3IWF support are lacking the normative requirements "shall, may…etc", i.e. the text is written in an informative way. This shall be corrected. | | | | | | | | |
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| ***Summary of change:*** | | Specifying the normative requirements in the missing places. | | | | | | | | |
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| ***Consequences if not approved:*** | | Wrong specification, where there will be ambiguity whether the requirements are normative and hence shall be followed by the UE or not. | | | | | | | | |
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| ***Clauses affected:*** | | 8.2.7.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \*\*\*\*\*

#### 8.2.7.1 General

As specified in clause 5.4.1.2 of 3GPP TS 23.304 [2], the 5G ProSe layer-3 UE-to-network relay with N3IWF support shall provide the 5G ProSe layer-3 remote UE with the connection which can access to the N3IWF. In this way, the 5G ProSe layer-3 remote UE is able to select the N3IWF and access to the 5GC via the N3IWF.

The layer-3 ProSe UE-to-network relay UE is provisioned with the UE policies for 5G ProSe layer-3 UE-to-network relay including the relay service code which corresponds to use N3IWF access for the relayed traffic as defined in 3GPP TS 24.555 [17].

For UE-to-network relay discovery with model A, the UE-to-network relay UE shall include the relay service code in the PROSE PC5 DISCOVERY message for UE-to-network relay discovery announcement as specified in clause 8.2.1.2. For UE-to-network relay discovery with model B, the 5G ProSe layer-3 remote UE shall include the relay service code which corresponds to use N3IWF access for the relayed traffic in the PROSE PC5 DISCOVERY message for UE-to-network relay discovery solicitation as specified in clause 8.2.1.3. The relay service code in the PROSE PC5 DISCOVERY message for UE-to-network relay discovery response shall match the relay service code received from the 5G ProSe layer-3 remote UE.

If the 5G ProSe layer-3 remote UE intends to access 5GC via N3IWF, the 5G ProSe layer-3 remote UE:

a) shall select the relay service code which corresponds to use N3IWF access for the relayed traffic in the received PROSE PC5 DISCOVERY message; and

b) shall send the PROSE DIRECT LINK ESTABLISHMENT REQUEST message including the selected relay service code in a) to the 5G ProSe layer-3 UE-to-network relay UE.

The 5G ProSe layer-3 UE-to-network relay UE establishes the PDU session with corresponding parameters for the requested relay service code as specified in clause 8.2.7.2.

The 5G ProSe layer-3 remote UE performs the N3IWF selection as specified in 8.2.7.3 once the IP address/prefix allocation is completed.

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