**3GPP TSG-CT WG1 Meeting #141eC1-232591**

**Online 17– 21 April 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
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|  | **24.554** | **CR** | **0334** | **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 | **X** |

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| ***Title:***  | Provisioning RSC dedicated for emergency service |
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| ***Source to WG:*** | CATT |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | 5G\_ProSe\_Ph2 |  | ***Date:*** | 2023-04-07 |
|  |  |  |  |  |
| ***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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | According to [S2-2303868](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_155_Athens_2023-02/Docs/S2-2303868.zip), stage2 has supported emergency service for UE-to-Network Relaying. |
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| ***Summary of change:*** | Add the dedicated relay service code(s) for emergency service in the configuration parameters. |
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| ***Consequences if not approved:*** | Stage 3 does not align with Stage 2 specifications. |
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| ***Clauses affected:*** | 5.2.5 |
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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 \* \* \* \*

### 5.2.5 Configuration parameters for 5G ProSe UE-to-network relay

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

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

b) a list of PLMNs in which the UE is authorised to relay traffic for 5G ProSe layer-3 remote 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-network 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 remote 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-network 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 additional information 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-network relay discovery;

f) one or more relay service code(s) for the UE-to-network relay discovery for normal services, one or more relay service code(s) for the UE-to-network relay discovery for emergency services or both, and for each relay service code:

1) security related content for 5G ProSe relay discovery that is used when the security procedure over control plane as specified in 3GPP TS 33.503 [34] is used, including a validity timer for that security related content;

Editor's note: For relay service code(s) dedicated for emergency services, whether and how security control is performed is FFS and depends on SA3 requirements.

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

3) for 5G ProSe layer-3 UE-to-network relay UE, a set of PDU session parameters:

i) PDU session type;

ii) DNN;

iii) optionally, SSC mode;

iv) optionally, S-NSSAI; and

v) optionally, access type preference;

4) for 5G ProSe layer-2 UE-to-network relay UE and 5G ProSe layer-3 UE-to-network relay UE, security policies for 5G ProSe UE-to-network relay direct communication:

i) the signalling integrity protection policy;

ii) the signalling ciphering policy;

iii) the user plane integrity protection policy; and

iv) the user plane ciphering policy; and

5) for 5G ProSe layer-2 UE-to-network relay UE and 5G ProSe layer-3 UE-to-network relay UE, a control plane security indication to indicate whether to use the security procedure over control plane as specified in 3GPP TS 33.503 [34]. If the control plane security indication indicates not to use the security procedure over control plane, the 5G ProSe UE-to-network relay UE uses the security procedure over user plane as specified in 3GPP TS 33.503 [34];

NOTE 2: If the control plane security indication indicates to use the security procedure over control plane and the 5G ProSe UE-to-network relay UE doesn't support the security procedure over control plane, the 5G ProSe UE-to-network relay UE doesn't use that relay service code

g) for 5G ProSe layer-3 UE-to-network relay UE, QoS mapping rules including:

1) a mapping between a 5QI value and a 5G ProSe PQI value over PC5 for traffic relayed over the PC5 interface;

2) a PDB adjustment factor of the standardized PDB identified by the PQI; and

3) optionally, the relay service code(s) associated with the QoS mapping rule;

h) the radio parameters of the 5G ProSe UE-to-network 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;

i) for 5G ProSe layer-3 UE-to-network relay UE, for Ethernet and Unstructured traffic using IP type PDU session, a list of ProSe identifier(s) to ProSe application server address mapping rule. Each mapping rule contains one or more ProSe identifier(s) and IP address/FQDN and transport layer port number;

j) 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;

k) optionally, the 5G PKMF address information;

l) for 5G ProSe UE-to-network relay UE, the default PC5 DRX configuration for discovery as specified in 3GPP TS 38.331 [13] when the UE is not served by NG-RAN; and

m) the privacy timer value for changing the source layer-2 ID assigned by the 5G ProSe UE-to-network relay UE for direct communication, as specified in 3GPP TS 24.555 [17].

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

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

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

c) a list of PLMNs in which the UE is authorized to use a 5G ProSe layer-2 UE-to-network relay UE, where that authorization also authorizes the use of both 5G ProSe UE-to-network relay discovery Model A and 5G ProSe UE-to-network relay discovery Model B;

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

NOTE 3: 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-network relay discovery;

f) one or more relay service code(s) for the UE-to-network relay discovery for normal services, one or more relay service code(s) for the UE-to-network relay discovery for emergency services or both, and for each relay service code:

1) security related content for 5G ProSe relay discovery that is used when the security procedure over control plane as specified in 3GPP TS 33.503 [34] is used, including a validity timer for that security related content;

Editor's note: For relay service code(s) dedicated for emergency services, whether and how security control is performed is FFS and depends on SA3 requirements.

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

3) for 5G ProSe remote UE using 5G ProSe layer-3 UE-to-network relay, one of the following:

i) a set of PDU session parameters for the relayed traffic without using N3IWF access:

A) PDU session type;

B) DNN;

C) optionally, SSC mode;

D) optionally, S-NSSAI; and

E) optionally, access type preference; or

ii) an indication of using N3IWF access for the relayed traffic;

4) for 5G ProSe remote UE using 5G ProSe layer-2 UE-to-network relays or 5G ProSe layer-3 UE-to-network relay, security policies for 5G ProSe UE-to-network relay direct communication:

i) the signalling integrity protection policy;

ii) the signalling ciphering policy;

iii) the user plane integrity protection policy; and

iv) the user plane ciphering policy;

5) optionally, for 5G ProSe remote UE using 5G ProSe layer-3 UE-to-network relay, the ProSe application traffic descriptor(s) (as defined in 3GPP TS 24.526 [5]) to be used for the relayed traffic; and

6) for 5G ProSe remote UE using 5G ProSe layer-2 UE-to-network relay or 5G ProSe layer-3 UE-to-network relay, a control plane security indication to indicatewhether to use the security procedure over control plane as specified in 3GPP TS 33.503 [34]. If the control plane security indication indicates not to use the security procedure over control plane, the 5G ProSe remote UE uses the security procedure over user plane as specified in 3GPP TS 33.503 [34];

NOTE 4: If the control plane security indication indicates to use the security procedure over control plane and the 5G ProSe remote UE doesn't support the security procedure over control plane, the 5G remote UE doesn't use the corresponding relay service code.

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;

NOTE 5: Whether a frequency band is "operator managed" or "non-operator managed" in a given Geographical Area is defined by local regulations.

i) if at least one relay service code is configured with the indication of using N3IWF access for the relayed traffic, the N3IWF selection information for 5G ProSe layer-3 remote UE:

1) N3IWF identifier configuration (either FQDN or IP address); and

2) 5G ProSe layer-3 UE-to-network relays, access node selection information, which consists of a prioritized list of PLMNs for N3IWF selection and an indication that the selection of an N3IWF in a PLMN should be based on Tracking Area Identity FQDN or on Operator Identifier FQDN;

j) optionally, the 5G PKMF address information;

k) for 5G ProSe remote UE, the default PC5 DRX configuration for discovery as specified in 3GPP TS 38.331 [13] when the UE is not served by NG-RAN; and

l) the privacy timer value for changing the source layer-2 ID assigned by the 5G ProSe remote UE for direct communication, as specified in 3GPP TS 24.555 [17].

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