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

**E-Meeting, 18th – 26th August 2022was C1-224836**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.554** | **CR** | **0133** | **rev** | **1** | **Current version:** | **17.1.0** |  |
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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:*** | Clarification on 5G DDNMF discovery | | | | | | | | | |
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| ***Source to WG:*** | ZTE | | | | | | | | | |
| ***Source to TSG:*** | CT1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_ProSe | | | | |  | ***Date:*** | | | 2022-08-18 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | According to following quoted texts from 23.304:  "*The 5G ProSe-enabled UE use procedure defined in clause 4.3.2.2 to discovery the 5G DDNMF in the HPLMN. Based on the UE Local Configuration or URSP as defined in TS 23.503 [9], an existing PDU session is selected or a new PDU session is established, to carry the control signalling between the UE and the 5G DDNMF in the HPLMN.*  *… …*  *… …*  *The 5G DDNMF of HPLMN is discovered through interaction with the Domain Name Service function. The FQDN of a 5G DDNMF in the Home PLMN may either be pre-configured on the UE or provisioned by the network or self-constructed by the UE, e.g. derived from PLMN ID of the HPLMN. The IP address of a 5G DDNMF in the Home PLMN may also be provisioned to the UE*.",  one of ways the UE discovers 5G DDNMF in HPLMN is querying Domain Name Service function with FQDN. The FQDN of the 5G DDNMF in HPLMN can be pre-configured on the UE or provisioned by the network or self-constructed by the UE.  Regarding the FQDN of 5G DDNMF in HPLMN provisioned by the network, it proposes to specify that PCF provides the FQDN of 5G DDNMF in HPLMN in ProSeP.  The way above is not fully specified in current specification. | | | | | | | | |
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| ***Summary of change:*** | | Add the FQDN of the 5G DDNMF in the HPLMN in Configuration parameters for 5G ProSe direct discovery.  The FQDN of the 5G DDNMF in the HPLMN may be pre-configured on the UE or self-constructed by the UE. The FQDN of the 5G DDNMF in the HPLMN may also be provisioned by the PCF. | | | | | | | | |
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| ***Consequences if not approved:*** | | Stage 2 requirement is not implemented. | | | | | | | | |
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| ***Clauses affected:*** | | 5.2.3, 6.1.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

### 5.2.3 Configuration parameters for 5G ProSe direct discovery

The configuration parameters for 5G ProSe direct discovery over PC5 reference point consist of:

a) a validity timer for the validity of the configuration parameter for 5G ProSe direct discovery over PC5 interface;

b) a list of PLMNs in which the UE is authorised to perform open 5G ProSe direct discovery Model A monitoring when the UE is served by NG-RAN;

c) a list of PLMNs in which the UE is authorized to perform open 5G ProSe direct discovery Model A announcing when the UE is served by NG-RAN;

d) a list of PLMNs in which the UE is authorised to perform restricted 5G ProSe direct discovery Model A monitoring when the UE is served by NG-RAN;

e) a list of PLMNs in which the UE is authorized to perform restricted 5G ProSe direct discovery Model A announcing when the UE is served by NG-RAN;

f) a list of PLMNs in which the UE is authorized to perform restricted Model B discoverer operation when the UE is served by NG-RAN;

g) a list of PLMNs in which the UE is authorized to perform restricted Model B discoveree operation when the UE is served by NG-RAN;

h) an indication of whether the UE is authorized to perform 5G ProSe direct discovery for Model A or Model B when "not served by NG-RAN";

i) radio parameters for ProSe direct discover per NR PC5 applicable per geographical area(s) with an indication of whether these radio parameters are "operator managed" or "non-operator managed" when "not served by NG-RAN";

NOTE 1: Whether a frequency band is "operator managed" or "non-operator managed" in a given geographical area is defined by local regulations.

j) a 5G ProSe direct discovery UE ID for restricted direct discovery;

k) a list of group member discovery parameters that enable the group member discovery. For each group the list consists of, one application layer group ID, layer-2 group ID and User info ID;

NOTE 2: User info ID is expected to be assigned uniquely to a user within the discovery group.

l) a list of ProSe identifiers to be used for direct discovery over PC5 interface;

m) a list of ProSe identifiers to default destination layer-2 ID for initial discovery signalling mapping rule. Each mapping rule contains one or more ProSe identifiers and the default destination layer-2 ID for the initial signalling of direct discovery;

n) default PC5 DRX configuration as specified in TS 38.331 [13] when the UE is not served by NG-RAN; and

x) optionally, the FQDN of the 5G DDNMF in the HPLMN.

NOTE 3: The security parameters for 5G ProSe direct discovery are provisioned by 5G DDNMF as defined in clause 6.2.

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

#### 6.1.2.2 5G DDNMF discovery

The IP address or the FQDN of the 5G DDNMF in the HPLMN may be pre-configured in the UE. The FQDN of the 5G DDNMF in the HPLMN may also be self-constructed by the UE, i.e. derived from the PLMN ID of the HPLMN. The FQDN of the 5G DDNMF in the HPLMN may also be provisioned by the PCF as described in clause 5.2.3. The UE may use the pre-configured IP address or the FQDN of the 5G DDNMF in the HPLMN to discover the 5G DDNMF.\* \* \* End of Changes \* \* \* \*