**3GPP TSG-CT WG1 Meeting #126-eC1-206196**

**Electronic meeting, 15-23 October 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **2727** | **rev** | **-** | **Current version:** | **17.0.0** |  |
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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:*** | SNPN access mode over 3GPP access when accessing SNPN services via a PLMN | | | | | | | | | |
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| ***Source to WG:*** | SHARP | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
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| ***Work item code:*** | 5GProtoc17 | | | | |  | ***Date:*** | | | 2020-10-08 |
|  |  | | | |  | |  | | |  |
| ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17)* | |
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| ***Reason for change:*** | | When the UE accesses to SNPN services via a PLMN, the UE shall:  1. access to 5GCN of PLMN using 3GPP access firstly; and  2. access to 5GCN of SNPN via the PLMN using non-3GPP access secondly.  In this case, it has been already specified in TS 24.501 that the UE is operating in SNPN access mode over non-3GPP access.  However, it is unclear whether the UE is operating in SNPN access mode over 3GPP access or not. | | | | | | | | |
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| ***Summary of change:*** | | Add the description that the UE is not operating in SNPN access mode over 3GPP access in a case that the UE accesses to SNPN services via the PLMN. | | | | | | | | |
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| ***Consequences if not approved:*** | | The UE may operate in SNPN access mode over 3GPP access when the UE accesses to SNPN services via the PLMN. | | | | | | | | |
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| ***Clauses affected:*** | | 4.14.2 | | | | | | | | |
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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:*** | |  | | | | | | | | |

### 4.14.2 Stand-alone non-public network

If the UE is not SNPN enabled, the UE is always considered to be not operating in SNPN access mode. If the UE is SNPN enabled, the UE can operate in SNPN access mode. Details of activation and deactivation of SNPN access mode at the SNPN enabled UE are up to UE implementation.

The functions and procedures of NAS described in the present document are applicable to an SNPN and an SNPN enabled UE unless indicated otherwise. The key differences brought by the SNPN to the NAS layer are as follows:

a) instead of the PLMN selection process, the SNPN selection process is performed by a UE operating in SNPN access mode (see 3GPP TS 23.122 [5] for further details on the SNPN selection);

b) a "permanently forbidden SNPNs" list and a "temporarily forbidden SNPNs" list are managed per access type independently (i.e. 3GPP access or non-3GPP access) by a UE operating in SNPN access mode instead of forbidden PLMN lists;

c) inter-system change to and from S1 mode is not supported;

d) emergency services are not supported in SNPN access mode;

e) CAG is not supported in SNPN access mode;

f) with respect to the 5GMM cause values:

1) 5GMM cause values #74 "Temporarily not authorized for this SNPN" and #75 "Permanently not authorized for this SNPN" are supported whereas these 5GMM cause values cannot be used in a PLMN; and

2) 5GMM cause values #11 "PLMN not allowed", #31 "Redirection to EPC required", #73 "Serving network not authorized", and #76 "Not authorized for this CAG or authorized for CAG cells only" are not supported whereas these 5GMM cause values can be used in a PLMN;

NOTE: The network does not send 5GMM cause value #13 to the UE operating in SNPN access mode in this release of specification.

g) a list of "5GS forbidden tracking areas for roaming" and a list of "5GS forbidden tracking areas for regional provision of service" are managed per SNPN (see 3GPP TS 23.122 [5]);

h) when accessing SNPN services via a PLMN using 3GPP access, access to 5GCN of the SNPN is performed using 5GMM procedures for non-3GPP access and 5GMM parameter for non-3GPP access. In this case, the UE is operating in SNPN access mode over non-3GPP access, and the UE is not operating in SNPN access mode over 3GPP access. When accessing PLMN services via a SNPN using 3GPP access, access to 5GCN of the PLMN is performed using 5GMM procedures for non-3GPP access and 5GMM parameter for non-3GPP access. In this case, the UE is not operating in SNPN access mode over non-3GPP access. From the UE's NAS perspective, accessing PLMN services via an SNPN and accessing SNPN services via a PLMN are treated as untrusted non-3GPP access. If the UE is accessing the PLMN using non-3GPP access, the access to 5GCN of the SNPN via PLMN is not specified in this release of the specification;

i) when registered to an SNPN, the UE shall use only the UE policies provided by the registered SNPN;

j) equivalent SNPN is not supported;

k) neither the default configured NSSAI nor the network slicing indication is supported in SNPNs;

l) roaming is not supported in SNPN access mode;

m) handover between SNPNs and handover between an SNPN and a PLMN are not supported;

n) CIoT 5GS optimizations are not supported;

o) accessing SNPN services using non-3GPP access is not supported, except when accessing SNPN services via a PLMN using 3GPP access as specified in item h;

p) when registering or registered to an SNPN, the UE shall only consider a 5G-GUTI previously assigned by the same SNPN as a valid 5G-GUTI; and

q) when registering or registered to an SNPN, the UE shall only consider a last visited registered TAI visited in the same SNPN as an available last visited registered TAI.