**3GPP TSG- SA1 Meeting # 104 *SP-23xxxx***

**Chicago, USA, 13 - 17 November 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** | **xxxx** | **rev** | **-** | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HELP***](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:*** |  | | | | | | | | | |
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| ***Source to WG:*** | Huawei, Mediatek | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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)* | |
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| ***Reason for change:*** | | Introducing service requirements for switching all of the UE’s ongoing traffic from one 3GPP access network belonging to one PLMN to another 3GPP access network belonging to another PLMN, based on the outcome of the FS\_DualSteer study | | | | | | | | |
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| ***Summary of change:*** | | Added a new section 6.x | | | | | | | | |
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| ***Consequences if not approved:*** | | Missing All Traffic Access Switching requirements | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.1, 6.xx (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 =======================================

## 6.xx All traffic access switching between two 3GPP access networks

### 6.xx.1 Description

Under the circumstance that two networks with 3GPP access are present (with both being 5G satellite access networks, or one of them being a 5G TN whilst the other being a 5G satellite access network) and before the UE is about to move outside of the serving 3GPP access network coverage (i.e. either a 5G TN or the a 5G satellite access network), the 5G system provides the functionalities of switching, under network control, all the traffic on the UE from the currently serving network with 3GPP access to the other network while there is only traffic on one of the two access networks, aiming at minimizing the switching time to enhance the user experience. There is no traffic being transmitted onto the to-be-switched-to network with 3GPP access, as long as there is still ongoing traffic being transmitted onto the currently serving network with 3GPP access.

The two networks with 3GPP access are two different PLMNs operated by two operators, with a business agreement needed to be in place between the two network operators (no impact on existing inter-PLMN roaming). The UE's user data is anchored in the HPLMN's core network, supporting single radio capable UE operation.

The requirements below do not foresee impacts on RAN specifications.

To meet this new requirement will not result in any negative impact on 5G system in terms of both operation and performance.

### 6.xx.2 Requirements

To meet this new requirement shall not impact existing 5G network, i.e. its operation and provided services shall not be negatively impacted.

Subject to operator policies, the 5G system shall support a mechanism to minimize the network-controlled switching time of all of the UE’s ongoing traffic (i.e. all data originated from and being sent to a UE) from one 3GPP access network belonging to one PLMN to another 3GPP access network belonging to another PLMN, both 3GPP access networks being 5G satellite access networks, or one of them being a 5G TN whilst the other being a 5G satellite access network, based on their coverage. The two PLMNs belong to two different operators, and the user data is anchored in the HPLMN. This assumes a single PLMN subscription. The mechanism shall support single-radio capable UEs.

NOTE 1: A business agreement is required to be in place between the two operators operating each PLMN.

NOTE 2: The fast switch time aims at improved user experience i.e. minimized interruption of an ongoing service.

When performing the network-controlled access switching of all the traffic of the UE between the two 3GPP access networks, there shall not be traffic initiated or maintained over one 3GPP access network if there is already ongoing UE traffic over the other 3GPP access network.

The 5G system shall be able to collect charging information related to the network-controlled switching of user’s all traffic (i.e. all data originated from and being sent to a UE) from one 3GPP access network to another 3GPP access network, both being 5G satellite access networks, or one of them being a 5G TN whilst the other being a 5G satellite access networks, with user data anchored in the HPLMN.

NOTE 1: The two 3GPP access networks belong to two different PLMNs operated by two operators.

NOTE 2: Charging information should be collected for both 3GPP access networks; and a business agreement among network operators is required.

============================== End of Changes =======================================