**SA WG2 Meeting #S2-143E S2-210xxxx**

**24 February - 9 March 2021, Electronic, Elbonia (revision of S2-210xxxx)**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **23.501** | **CR** | **<CR#>** | **rev** | **<->** | **Current version:** | **16.7.0** |  |
|  |
| *For* ***HE******LP*** *on using this form: comprehensive instructions can be found at http://www.3gpp.org/Change-Requests.* |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  |
| ***Title:***  | KI#2, adding impacts due to IP PDU session |
|  |  |
| ***Source to WG:*** | ZTE |
| ***Source to TSG:*** | SA WG2 |
|  |  |
| ***Work item code:*** | IIoT |  | ***Date:*** | 2021-01-20 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 canbe found in 3GPP TR 21.900. | *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)* |
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| ***Reason for change:*** | The IP PDU session type is supported for the TSC. The TSC Assistance container for IP PDU session is needed. |
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| ***Summary of change:*** | Adding a new clause to clarify how the NEF careate the TSC Assistance container and find the N5 session. |
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| ***Consequences if not approved:*** | How to support IP PDU session for TSCAI is missing |
|  |  |
| ***Clauses affected:*** | 5.27.0, 5.27.2.X (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*

5.27 Time Sensitive Communications

5.27.0 General

This clause describes 5G System features that support TSC and allow the 5G System to be integrated transparently as a bridge in an IEEE 802.1 TSN network.

During the PDU Session establishment, the UE shall request to establish a PDU Session as an always-on PDU Session, and the PDU Sessions used for TSC are established as Always-on PDU session as described in clause 5.6.13. In this release of the specification:

- Home Routed PDU Sessions are not supported for TSC services;

- TSC PDU Sessions are supported only with IP and Ethernet PDU Session type and SSC mode 1;

- Service continuity for TSC PDU Sessions is not supported when the UE moves from 5GS to EPS.

*Next CHANGE*

5.27.2.X TSC Assistance Container determination by TSC exposure

The IP or Ethernet PDU sessions are supported when the TSC Assistance Container is provided by the AF. In case of IEEE TSN network, it is TSN AF responsibility and in case of non-TSN network it is the AF responsibility to generate the TSC Assistance Container.

TSC Assistance Container describing TSC traffic characteristics may be created by the AF and provided to the NEF also when there is no IEEE TSN network for TSC. The NEF receives an AF requesting Deterministic QoS as described in clause 5.27.1a.2 and the TSC Assistance Container is then sent to the PCF. The AF may provide Flow Direction, Burst Arrival Time at the UE/DS-TT (uplink) or at UPF/NW-TT (downlink), Periodicity, Survival Time in the TSC Assistance Container to the NEF.

*END OF CHANGES*