**SA WG2 Meeting #S2-143E S2-2100611r14**

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

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **23.503** | **CR** | **0529** | **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#4-T3, Enabling restricted PDU Session for remote provisioning of UE using User Plane  |
|  |  |
| ***Source to WG:*** | ZTE, Ericsson, Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | SA WG2 |
|  |  |
| ***Work item code:*** | eNPN |  | ***Date:*** | 2021-02-02 |
|  |  |  |  |  |
| ***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:*** | For the user plane remote provisioning for SNPN credentials, it has been agreed, - A restricted PDU session is supported to be dedicated for the remote provisioning. Upon successful establishment of restricted access PDU session, if the UE still does not have a PS address via any of the methods listed below, the device uses a well-known FQDN to perform PS discovery.- When Onboarding network is O-SNPN, the information required to restrict the usage is locally configured in the SMF, and the SMF restricts the usage for the UE registered for onboarding.- When Onboarding network is a PLMN, the functionality to restrict usage is activated for the UE by SMF based on received existing subscription profile from the UDM and on existing policies from PCF, or local configuration.This CR implement this to 23.503 |
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| ***Summary of change:*** | Adding SNPN abbreviation, clarify PCC rule for SNPN UE remote provisioning. And adding a new clause on SNPN UE Remote Provisionning support. |
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| ***Consequences if not approved:*** | The SNPN UE Remote Provisionning support is not implemented. |
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| ***Clauses affected:*** | 3.2, 6.1.3.2.3, 6.1.3.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*

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1], TS 23.501 [2], TS 23.502 [3], TS 23.316 [27] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

AMBR Aggregated Maximum Bitrate

ANDSP Access Network Discovery & Selection Policy

ARP Allocation and Retention Priority

ASP Application Service Provider

BDT Background Data Transfer

BSF Binding Support Function

CHF CHarging Function

H-PCF A PCF in the HPLMN

H-UDR A UDR in the HPLMN

MPS Multimedia Priority Service

NBIFOM Network-based IP flow mobility

NSWO Non-Seamless WLAN Offload

NWDAF Network Data Analytics Function

OAM Operation Administration and Maintenance

OCS Online Charging System

PCC Policy and Charging Control

PFD Packet Flow Description

PFDF Packet Flow Description Function

PRA Presence Reporting Area

PVS Provisioning Server

RAN Radio Access Network

SNPN Stand-alone Non-Public Network

URSP UE Route Selection Policy

V2XP V2X Policy

V-PCF A PCF in the VPLMN

V-UDR A UDR in the VPLMN

vSRVCC video Single Radio Voice Call Continuity

WLANSP WLAN Selection Policy

*Next CHANGE*

##### 6.1.3.2.3 PCC rule authorization

PCC Rule authorization is the selection of the 5G QoS parameters, described in TS 23.501 [2] clause 5.7.2, for the PCC rules.

The PCF shall perform the PCC rule authorization for dynamic PCC rules belonging to AF sessions that have been selected in step 1, as described in clause 6.1.3.2.2, as well as for PCC rules without corresponding AF sessions.

For the authorization of a PCC rule the PCF shall consider any 5GC specific restrictions, subscription information and other information available to the PCF. Each PCC rule receives a set of QoS parameters that are supported by the specific Access Network. The authorization of a PCC rule associated with an emergency service shall be supported without subscription information. The PCF shall apply local policies configured for the emergency service.

The authorization of a PCC rule used for SNPN UE remote provisioning via user plane shall be supported without subscription information. The PCF shall apply policies for support of SNPN UE remote provisioning as described in clause 6.1.3.X.

*Next CHANGE*

#### 6.1.3.X SNPN UE Remote Provisioning support via User Plane

SNPN UE remote provisioning support via user plane is specified in 3GPP TS 23.501 clause 5.30 [2].

SNPN UE remote provisioning is a network service provided through a DNN and S-NSSAI used for UE onboarding.

For a PDU Session used for SNPN UE remote provisioning, the PCF may make authorization and policy decisions that restrict the use of the PDU Session, that shall not be used to serve any other service, e.g., by restricting the traffic to/from Provisioning Server (PVS) address(es) only. The PCF determines based on the DNN and S-NSSAI used for UE onboarding, if a PDU Session is used for SNPN UE remote provisioning.

The PCC Rule Authorization function selects QoS parameters applicable to the PDU Session used forUE remote provisioning. For a PDU Session established to the DNN and S-NSSAI used for onboarding, the PCF does not perform a subscription check. Instead, the PCF uses the Onboarding Configuration Data to make authorization and policy decisions.

The PCF checks the Onboarding Configuration Data per DNN and S-NSSAI combination that may include the PVS address(es) in the SDF template and its related QoS parameters in the PCC Rule., The PCF may activate or install PCC Rules at the SMF that enables traffic to/from Provisioning Server address(es) with the associated QoS. The PCC Rules providesd by the PCF takes precedence over the onboarding information at the SMF.

*END OF CHANGES*