**3GPP TSG-CT3 Meeting #127 *C3-231090***

**,** *(revision of C3-231xyz)*

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.525** | **CR** | **0246** | **rev** | **-** | **Current version:** | **18.1.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Representation of N43 reference point | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eUEPO | | | | |  | ***Date:*** | | | 2023-03-29 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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:*** | | * When the PCF for the PDU session and the PCF for the UE are different, the PCF for the PDU session interacts with the PCF for the UE for the delivery of URSP when the UE is in EPS. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Service Architecture figure is updated for the non-roaming scenarios. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incorrect service architecture figure, not showing the interaction between PCFs. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.2, 4.1.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | The CR does not impact the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* Start of Changes \* \* \* \*

## 3.2 Abbreviations

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

5G-BRG 5G Broadband Residential Gateway

5G-CRG 5G Cable Residential Gateway

5G-RG 5G Residential Gateway

5G-VN 5G Virtual Network

AMF Access and Mobility Management Function

ANDSP Access Network Discovery and Selection Policy

API Application Programming Interface

DNN Data Network Name

EPS Evolved Packet Core System

FN-RG Fixed Network Residential Gateway

FN-BRG Fixed Network Broadband Residential Gateway

FN-CRG Fixed Network Cable Residential Gateway

FQDN Fully Qualified Domain Name

GPSI Generic Public Subscription Identifier

GUAMI Globally Unique AMF Identifier

HFC Hybrid Fiber-Coaxial

HTTP Hypertext Transfer Protocol

H-PCF Home Policy Control Function

JSON JavaScript Object Notation

N3AN Non-3GPP access network

NID Network Identifier

NF Network Function

NRF Network Repository Function

NSWO Non-Seamless WLAN Offload

OS Operating System

OSId Operating System Identity

PCF Policy Control Function

PDU Packet Data Unit

PEI Permanent Equipment Identifier

PRA Presence Reporting Area

ProSeP 5G ProSe Policy

PTI Procedure Transaction Identity.

RSN Redundancy Sequence Number

SNPN Stand-alone Non-Public Network

SUPI Subscription Permanent Identifier

UDR Unified Data Repository

UPSC UE policy section code

UPSI UE policy section identifier

URSP UE Route Selection Policy

V2X Vehicle-to-Everything

V2XP Vehicle-to-Everything Policy

V-PCF Visited Policy Control Function

W-5GAN Wireline 5G Access Network

W-5GCAN Wireline 5G Cable Access Network

W-AGF Wireline Access Gateway Function

\* \* \* \* Second Change \* \* \* \*

### 4.1.2 Service Architecture

The 5G System Architecture is defined in 3GPP TS 23.501 [2]. The Policy and Charging related 5G architecture is also described in 3GPP TS 29.513 [7].

The UE Policy Control Service (Npcf\_UEPolicyControl) is part of the Npcf service-based interface exhibited by the Policy Control Function (PCF).

The known NF service consumers of the Npcf\_UEPolicyControl service are the Access and Mobility Management Function (AMF) and the Visited Policy Control Function (V-PCF).

The AMF accesses the UE Policy Control Service at the PCF via the N15 reference point. In case of URSP delivery in EPS, when the PCF for the PDU session and the PCF for the UE are different, the PCF for the PDU session accesses the UE Policy Control Service at the PCF via the N43 reference point,

In the roaming scenario, the N15 reference point is located between the V-PCF in the visited network and the AMF. The V-PCF accesses the UE Policy Control Service at the Home Policy Control Function (H-PCF) via the N24 Reference point.

Editor's Note: It is FFS the Roaming reference architecture when the PCF for the PDU session is a consumer of the PCF for the UE.



Figure 4.1.2-1: Reference Architecture for the Npcf\_UEPolicyControl Service; SBI representation



Figure 4.1.2-2: Non-roaming Reference Architecture for the Npcf\_UEPolicyControlService; reference point representation

NOTE: When the N43 reference point exists, i.e. when the PCF is a NF service consumer of the Npcf\_UEPolicyControl service, the PCF for the PDU session interacts with the PCF for the UE.



Figure 4.1.3-2: Roaming reference Architecture for the Npcf\_UEPolicyControlService; reference point representation

Editor's Note: It is FFS the Roaming reference architecture when the PCF for the PDU session interacts with the PCF for the UE.

\* \* \* \* End of change \* \* \* \*