**3GPP TSG-CT WG3 Meeting #134C3-242212**

**Changsha, China, 15 - 19 April, 2024 (revision of C3-242abc)**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.513** | **CR** | **0539** | **rev** | **-** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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:*** | Corrections for AF requesting to influence traffic routing for HR-SBO session | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | EDGE\_Ph2 | | | | |  | ***Date:*** | | | 2024-04-01 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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:*** | | The details of how to determine the PDU session is working in HR-SBO mode is defined in clause 4.4.7.5 of TS 29.522, hence the related EN in clause 5.5.3.4 can be removed | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | * Remove the following Editor’s Note:   Editor's note: How roamers will be identified in TrafficInfluData is FFS.   * Other editorial corrections. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Open issue in the specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.5.3.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

## 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].

5GC 5G Core Network

5G DDNMF 5G Direct Discovery Name Management Function

5QI 5G QoS Identifier

5G VN 5G Virtual Network

A2X Aircraft-to-Everything

A2XP Aircraft-to-Everything Policy

AF Application Function

AMBR Aggregate Maximum Bit Rate

AMF Access and Mobility Management Function

ARP Allocation and Retention Priority

AW Average Window

BDT Background Data Transfer

BSF Binding Support Function

CHEM Coverage and Handoff Enhancements using Multimedia error robustness feature

CHF Charging Function

DetNet Deterministic Networking

DSCP Differentiated Services Code Point

DN-AAA Data Network Authentication, Authorization and Accounting

DTS Data Transport Service

EPC Evolved Packet Core

EPS Evolved Packet System

E-UTRAN Evolved Universal Terrestrial Radio-Access Network

LBO Local Breakout

MBR Maximum Bitrate

MBS Multicast/Broadcast Service

MBSF Multicast/Broadcast Service Function

MB-SMF Multicast/Broadcast Session Management Function

MCS Mission Critical Service

MME Mobility Management Entity

MPD Media Presentation Description

MPS Multimedia Priority Service

MTU Maximum Transmission Unit

NEF Network Exposure Function

NID Network Identifier

NPLI Network Provided Location Information

NRF Network Repository Function

NSSAI Network Slice Selection Assistance Information

NWDAF Network Data Analytics Function

ON-SNPN Onboarding Standalone Non-Public Network

PCC Policy and Charging Control

PCF Policy Control Function

PDB Packet Delay Budget

PDTQ Planned Data Transfer with QoS requirements

PDUID ProSe Discovery UE ID

PER Packet Error Rate

PFD Packet Flow Description

PFDF Packet Flow Description Function

PMIC Port Management Information Container

PL Priority Level

ProSe Proximity Services

ProSeP 5G ProSe Policy

PSA PDU Session Anchor

PSAP Public Safety Access Point

P-CSCF Proxy Call Session Control Function

QFI QoS Flow Identifier

QNC QoS Notification Control

QoS Quality of Service

SCP Service Communication Proxy

SDP Session Description Protocol

SEPP Security Edge Protection Proxy

SFC Service Function Chain

SL Sidelink

SMF Session Management Function

S-NSSAI Single Network Slice Selection Assistance Information

SNPN Stand-alone Non-Public Network

SPI Security Parameter Index

TNAP Trusted Network Access Point

TA Tracking Area

TSC Time Sensitive Communication

TSCAI Time Sensitive Communication Assistance Information

TSN Time Sensitive Networking

UDR Unified Data Repository

UL CL UpLink CLassifier

UMIC User plane node Management Information Container

UPF User Plane Function

UPSI UE policy section identifier

URSP UE Route Selection Policy

V2X Vehicle-to-Everything

V2XP Vehicle-to-Everything Policy

\*\*\* 2nd Change \*\*\*

#### 5.5.3.4 AF requests to influence traffic routing for HR-SBO session

If the AF in VPLMN requests to influence the traffic routing of PDU Sessions supporting HR-SBO (e.g., for the purpose of subscription to UP path management events on HR-SBO Sessions in VPLMN), the traffic influence procedure is performed as depicted in Figure 5.5.3.4-1.



Figure 5.5.3.4-1: Processing AF requests on PDU Sessions supporting HR-SBO

1. The V-AF requests to influence traffic routing is the same as steps 1 - 5 of of Figure 5.5.3.3-1. The V-NEF determines in step 2 in that figure that the HPLMN is different from the PLMN the V-NEF belongs to. The V-NEF derives the UE identity(ies) from the AF request information as defined in 3GPP TS 29.522 [24] before storing it in the V-UDR.

2. The V-SMF may include the HR-SBO support indication in Nsmf\_PDUSession\_Create/Update request as described in 3GPP TS 29.502 [52].

3-4. If the "HR-SBO" feature is supported and the HR-SBO support indication was received from the V-SMF in step 2, the H-SMF may include the HR-SBO support indication in the SM policy association create or update request as defined in clauses 4.2.2.2 and 4.2.4.2 of 3GPP TS 29.512 [9].

When the H-SMF provides the HR-SBO support indication to the H-PCF, the H-PCF of the PDU Session may provide the VPLMN Specific Offloading Policy for the local part of the DN in VPLMN as described in3GPP TS 29.512 [9].

5. The H-SMF may include the VPLMN Specific Offloading Policy in Nsmf\_PDUSession\_Create/Update response as described in 3GPP TS 29.502 [52].

6-7. When the H-SMF provides the HR-SBO support indication to the H-PCF, the H-PCF of the PDU Session may also provide the VPLMN Specific Offloading Policy for the local part of the DN in VPLMN in Npcf\_SMPolicyControl\_UpdateNotify request.

8-9. The H-SMF may include the VPLMN Specific Offloading Policy in Nsmf\_PDUSession\_Update request as described in clause 5.2.2.3 of 3GPP TS 29.502 [52].

10-11. The V-SMF may subscribe to notification of AF request by invoking Nnef\_TrafficInfluenceData\_Subscribe service operation from V-NEF as defined in clause 4.4.2.2 of 3GPP TS 29.591 [67].

12-13. If the V-NEF receives the subscription from the V-SMF in step 10, the V-NEF subscribes to notification of AF request by invoking Nudr\_DataRepository\_Subscribe service operation by sending an HTTP POST request to the "Influence Data Subscription" resource. The UDR sends an HTTP "201 Created" response to acknowledge the subscription.

14-15. The UDR invokes the Nudr\_DataRepository\_Notify service operation to V-NEF that has subscribed to modifications of AF requests by sending the HTTP POST request to the callback URI "{notificationUri}", and the V-NEF sends a "204 No Content" response to the UDR.

Editor’s Note: What information is used in step 1 to identify the user in the UDR so that it can be identified in steps 12-15 and whether additional steps are needed to get it requires further work in stage 2.

16-17. The V-NEF may send notification to the V-SMF which has subscribed to AF request by invoking Nnef\_TrafficInfluenceData\_Notify service operation to the V-SMF as defined in clause 4.4.2.4 of 3GPP TS 29.591 [67].

18. This step is the same as the step 3a in Figure 5.5.3.2-1.

\*\*\* End of Changes \*\*\*