**3GPP TSG CT WG3 Meeting #138 *C3-246500***

**Orlando, US, 18 - 22 November, 2024 was C3-246064**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.525** | **CR** | **0377** | **rev** | **-** | **Current version:** | **19.0.0** |  |
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| *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:*** | Clarification on URSP and ANDSP rules used by UE in non-subscribed SNPN. | | | | | | | | | |
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| ***Source to WG:*** | Nokia | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI19, eNPN\_Ph2 | | | | |  | ***Date:*** | | | 2024-11-11 |
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| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
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| ***Reason for change:*** | | As per TS 23.503, clause 6.6.1.2:  The SNPN-enabled UE may be provisioned with one or multiple valid WLANSP policy by the subscribed SNPN or by the registered SNPN or by the Credential Holder to be used when operating in SNPN access mode. Based on implementation specific procedure the UE selects the WLANSP corresponding to the Credential Holder or the SNPN to which the UE wants to connect to. If the UE is registered to a non-subscribed SNPN and the UE has valid rules from both CH or subscribed SNPN and the registered SNPN, the UE gives priority to the valid WLANSP rules from the registered SNPN.  And clause 6.6.2.2.2  When an SNPN-enabled UE accesses an SNPN using credentials from a Credentials Holder (CH), the UE may also be provisioned (signalled) with URSP rules for the SNPN by the PCF of the SNPN. However, the UE may be required to not accept URSP rules signalled by any SNPN that the UE accesses using CH credentials from a CH as specified in TS 24.501 [22], as follows:  - by (pre-)configuration by the PLMN or SNPN of which the CH is part of (when applicable); or  - by provisioning (signalling) by the PLMN or SNPN of which the CH is part of, when the UE is registered in that PLMN or SNPN.  Also, as per the agreed SA2 CR S2-2410796 (CR#1392), below NOTE is updated in clause 6.6.2.2.2:  NOTE 1: A network (PLMN or SNPN) when operating as a CH (see clause 5.30.2.9 of TS 23.501 [2]) does not provide PCF functionality i.e. the PCF of this network cannot provision (signal) URSP rules to the UE when the UE is accessing an SNPN using CH credentials from this network operating as a CH. If the UE is in a non-subscribed SNPN using credentials from the Credential Holder and the UE selects URSP rules of the PLMN or SNPN of which the CH is part of, those URSP rules were provisioned (signalled) when the UE was registered in the PLMN or SNPN of which the CH is part of.  Above implies that when SNPN enabled UE is registered to a non-subscribed SNPN, it does not receive URSP rules from non-subscribed SNPN unlike WLANSP rules. | | | | | | | | |
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| ***Summary of change:*** | | Clause 4.2.2.2.1.1 is updated to reflect above requirement from stage-2. | | | | | | | | |
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| ***Consequences if not approved:*** | | Misalignment between stage-3 implementation and stage-2 requirements. | | | | | | | | |
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| ***Clauses affected:*** | | 4.2.2.2.1.1 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR 23.503 CR 1392 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR does not impact any open API defined in this specification | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\* First Change \*\*\*

###### 4.2.2.2.1.1 Provisioning of the UE Access Network discovery and selection policies and UE Route Selection Policy

During Initial Registration and 5GS Registration during UE mobility from EPS to 5GS, and when:

a) the UE has one or more stored UE policy sections corresponding to the serving PLMN/SNPN or HPLMN;or

b) the UE does not have any stored UE policy section corresponding to the serving PLMN/SNPN or HPLMN and the UE needs to send a UE policy container to the network;

Then the UE includes the "UE STATE INDICATION" message as defined in clause D.5.4.1 of 3GPP TS 24.501 [15], which is transferred transparently by the AMF within the "uePolReq" attribute during the creation of a policy association, as described in clause 4.2.2.1.

The (H-)PCF, or the PCF of the SNPN for the UEs subscribed to the SNPN, may store in the UDR, as specified in 3GPP TS 29.519 [17]:

a) UPSCs and related UE policy sections of the own PLMN or SNPN it provided to a UE;

b) the PEI received from the NF service consumer (e.g. AMF), if available;

c) the OSId(s) received from the UE within the "UE STATE INDICATION" message as described in the Annex D of 3GPP TS 24.501 [15], if available;

d) the indication of UE's support for ANDSP included in the "UE STATE INDICATION" message as described in the Annex D of 3GPP TS 24.501 [15], if available;

e) if the "EpsUrsp" feature defined in 3GPP TS 29.519 [17] is supported, the indication of UE's support for URSP provisioning in EPS included in the "UE STATE INDICATION" message as described in the Annex D of 3GPP TS 24.501 [15], if available;

f) if the "URSPEnforcement" feature defined in 3GPP TS 29.519 [17] is supported, the indication of UE's support for reporting URSP rule enforcement included in the "UE STATE INDICATION" message as described in the Annex D of 3GPP TS 24.501 [15], if available; and

g) if the "VPLMNSpecificURSP" feature defined 3GPP TS 29.519 [17] is supported, the indication of UE's support for VPLMN-Specific URSP included in the "UE STATE INDICATION" message as described in the Annex D of 3GPP TS 24.501 [15], if available.

The PCF shall retrieve from UDR the information previously stored in UDR, if not locally available, for URSP/ANDSP rule determination as specified in 3GPP TS 29.519 [17].

The V-PCF may retrieve UPSCs and related UE policy sections applicable for all UEs from a HPLMN from the V-UDR, using the HPLMN ID as key as specified in 3GPP TS 29.519 [17]. The PCF of the serving SNPN has locally configured the UPSCs and related UE policy sections applicable for all UEs other than the UEs subscribed to the SNPN.

When receiving the "UE STATE INDICATION" message, the (V-)(H-)PCF or the PCF of the serving SNPN, shall determine, based on the UPSIs indicated in that message, if available, the ANDSP support indication and the OSId(s) indicated in that message, if available, the reporting URSP rule enforcement support in that message, if available, the UE Policy Sections and UPSCs stored in the UDR, if available, the policy subscription data, if available, application data, if available, inputs received from the NF service consumer,and local policy, as specified in clauses 4.2.2.2.2 and 4.2.2.2.3, whether any new UE policy section(s) need to be installed and whether any existing UE policy section(s) need to be updated or deleted. Based on local configuration, the (H-)PCF or the PCF of the serving SNPN (for the SNPN-subscribed UEs), may indicate to the UE to accept/not accept URSP rules signalled by non-subscribed SNPNs within the UE policy network classmark IE in a MANAGE UE POLICY COMMAND message as described in Annex D of 3GPP TS 24.501 [15].

NOTE 1: When an SNPN-enabled UE registers in a SNPN using credentials from a Credentials Holder (CH) but the UE is not subscribed in that SNPN, the PCF of the non-subscribed SNPN, based on local policies, can provision the UE with ANDSP rules for the SNPN. For the provisioned ANDSP rules, the UE gives priority to the valid ANDSP rules from the registered SNPN.

NOTE 2: When an SNPN-enabled UE registers in a SNPN using credentials from a Credentials Holder (CH) but the UE is not subscribed in that registered SNPN, the PCF of the non-subscribed SNPN cannot provision the UE with URSP rules for the SNPN and the UE selects the URSP rules provisioned by the PCF from the PLMN or SNPN, during its registration with the PLMN or SNPN of which the CH was part of.

When the received "UE STATE INDICATION" message indicated that the UE supports VPLMN-specific URSP rules as specified in Annex D of 3GPP TS 24.501 [15], the (H-)PCF may determine URSP rules specific per VPLMN as specified in clause 4.2.2.2.3.2. In this case, the (H-)PCF shall provide to the UE within the "MANAGE UE POLICY COMMAND" the URSP rules to be applied in VPLMN(s) in specific UE policy section(s) and the VPS URSP configuration IE as specified in clause D.6.8 of 3GPP TS 24.501 [15].

NOTE 2: The VPS URSP configuration IE includes zero or more tuples, each tuple containing a tuple Id, VPLMN ID(s) and a list of UPSC(s) (of HPLMN's UE policy sections) with UE policies with URSP rules applicable to the VPLMN(s) and its equivalent PLMN(s).

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