**3GPP TSG-CT WG1 Meeting #141eC1-232584**

**Online 17– 21 April 2023**

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

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| ***Title:*** | Indicating the support of URSP rule enforcement in the UE policy classmark | | | | | | | | | |
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| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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:*** | | As discussed and agreed in S2-2303560 CR 3871, the UE should indicate the capability of reporting URSP rule enforcement to the network during the registration procedure in UE policy container:  Clause 4.2.2.2.2 of TS 23.502:  *1. UE to (R)AN: AN message (AN parameters, Registration Request (Registration type, SUCI or 5G-GUTI or PEI, [last visited TAI (if available)], Security parameters, [Requested NSSAI], [Mapping Of Requested NSSAI], [Default Configured NSSAI Indication], [UE Radio Capability Update], [UE MM Core Network Capability], [PDU Session status], [List Of PDU Sessions To Be Activated], [Follow-on request], [MICO mode preference], [Requested Active Time], [Requested DRX parameters for E-UTRA and NR], [Requested DRX parameters for NB-IoT], [extended idle mode DRX parameters], [LADN DNN(s) or Indicator Of Requesting LADN Information], [NAS message container], [Support for restriction of use of Enhanced Coverage], [Preferred Network Behaviour], [UE paging probability information], [Paging Subgrouping Support Indication], [UE Policy Container (the list of PSIs, indication of UE support for ANDSP and the operating system identifier, UE capability of supporting to report URSP rule enforcement to network)] and [UE Radio Capability ID], [Release Request indication], [Paging Restriction Information], PEI, [PLMN with Disaster Condition], [Requested Periodic Update time], [Unavailability Period Duration])).*  The above requirements should be implemented in stage-3 specifications.  Finally, since CT1 has not reached a consensus on how to send the UE STATE INDICATION when the UE does not have any UE policy section, the following EN is added:  Editor's note: (WI: eUEPO, CR 5339) It is FFS how to indicate the support of URSP rule enforcement when the UE does not have any UE policy section. | | | | | | | | |
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| ***Summary of change:*** | | Whether the UE supports to report URSP rule enforcement is added as an indication in the UE policy classmark | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The UE is not able to indicate the support of URSP rule enforcement in the UE policy container | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | D.2.2.1, D.2.2.2, D.6.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

### D.2.2.1 General

The purpose of the UE-initiated UE state indication procedure is:

a) to deliver the UPSI(s) of the UE policy section(s) which are:

- identified by a UPSI with the PLMN ID part indicating the HPLMN or the selected PLMN, and stored in the UE, if any; or

- identified by a UPSI with the PLMN ID part indicating the PLMN ID part of the SNPN identity of the selected SNPN and associated with the NID of the selected SNPN, and stored in the UE, if any;

b) to indicate whether UE supports ANDSP;

c) to indicate whether UE supports URSP provisioning in EPS;

d) to indicate whether UE supports URSP rule enforcement; and

e) to deliver the UE's one or more OS IDs;

to the PCF.

Editor's note: (WI: eUEPO, CR: 5117) when the UE does not have UPSI(s) to deliver to the PCF it is FFS how the UE indicates support for URSP provisioning in EPS.

\* \* \* Next Change \* \* \* \*

### D.2.2.2 UE-initiated UE state indication procedure initiation

In order to initiate the UE-initiated UE state indication procedure, the UE shall create a UE STATE INDICATION message. The UE:

a) shall allocate a PTI value currently not used and set the PTI IE to the allocated PTI value;

b) if not operating in SNPN access operation mode, shall include the UPSI(s) of the UE policy section(s) which are identified by a UPSI with the PLMN ID part indicating the HPLMN or the selected PLMN available in the UE in the UPSI list IE;

c) if operating in SNPN access operation mode, shall include UPSI(s) of the UE policy section(s) which are identified by a UPSI:

- with the PLMN ID part indicating the MCC and MNC of the selected SNPN; and

- associated with the NID of the selected SNPN;

available in the UE in the UPSI list IE;

d) shall specify whether the UE supports ANDSP in the UE policy classmark IE;

e) shall specify whether the UE supports URSP provisioning in EPS in the UE policy classmark IE;

f) shall specify whether the UE supports URSP rule enforcement in the UE policy classmark IE; and

g) may include the UE's one or more OS IDs in the UE OS Id IE.

Editor's note: (WI: eUEPO, CR 5339) It is FFS how to indicate the support of URSP rule enforcement when the UE does not have any UE policy section.

The UE shall send the UE STATE INDICATION message (see example in figure D.2.2.2.1). The UE shall transport the created UE STATE INDICATION message using the registration procedure (see subclause 5.5.1).



Figure D.2.2.2.1: UE-initiated UE state indication procedure

\* \* \* Next Change \* \* \* \*

## D.6.5 UE policy classmark

The purpose of the UE policy classmark information element is to provide the network with information about the policy aspects of the UE.

The UE policy classmark information element is coded as shown in figure D.6.5.1 and table D.6.5.1.

The UE policy classmark is a type 4 information element with a minimum length of 3 octets and a maximum length of 5 octets.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | | 7 | | 6 | | 5 | | 4 | | 3 | | 2 | | 1 | |  | |
| Policy information IEI | | | | | | | | | | | | | | | | octet 1 | |
| Length of Policy information contents | | | | | | | | | | | | | | | | octet 2 | |
| 0  Spare | | 0  Spare | | 0  Spare | | 0  Spare | | 0  Spare | | SupportRURE | | EPSURSP | | SupportANDSP | | octet 3 | |
| 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | octet 4\* -5\* | |
| Spare | | | | | | | | | | | | | | | |

Figure D.6.5.1: UE policy classmark information element

Table D.6.5.1: UE policy classmark information element

|  |  |  |
| --- | --- | --- |
| Support of ANDSP by the UE (SupportANDSP) (octet 3, bit 1) | | |
| Bit | | |
| 1 | |  |
| 0 | | ANDSP not supported by the UE |
| 1 | | ANDSP supported by the UE |
|  | | |
| Support of URSP Provisioning in EPS by the UE (EPSURSP) (octet 3, bit 2) | | |
| Bit | | |
| **2** |  | |
| 0 | URSP provisioning in EPS not supported by the UE | |
| 1 | URSP provisioning in EPS supported by the UE | |
| Support of Reporting URSP Rule Enforcement by the UE (SupportRURE) (octet 3, bit 3)  Bit  **3** | | |
| 0 | Reporting URSP rule enforcement not supported by the UE | |
| 1 | Reporting URSP rule enforcement supported by the UE | |
|  |  | |
| All other bits in octet 3 to 5 are spare and shall be coded as zero, if the respective octet is included in the information element. | | |

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