**3GPP TSG-CT WG1 Meeting #121C1-20xxxx**

**Reno (NV), USA, 11-15 November 2019**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **Xxxx** | **rev** | **-** | **Current version:** | **16.4.1** |  |
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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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | Indicating UE capability of IP3 tupe type and handling multiple components of the same traffic descriptor type |
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| ***Source to WG:*** | MediaTek Inc. |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | 5GProtoc16 |  | ***Date:*** | 2020-06-08 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-16 |
|  | *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](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-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:*** | In TS 24.526 CR#0077, two new UE features are introduced in Rel-16:1. IP 3 tupe type
2. Handling multiple components of the same traffic descriptor type in a single traffic descriptor
	1. In Rel-15, if the traffic descriptor contains more than one component, all of them shall be matched.
	2. In Rel 16, If the traffic descriptor contains more than one traffic descriptor component type, each of a different type, all of them shall be matched.

However, the UE capapbilities are not indicated to the network. |
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| ***Summary of change:*** | The UE indicates the follow capabilities in the UE policy classmark to the network:1. Support of IP 3 tuple type
2. Support of handling multiple components of the same traffic descriptor component type in a single traffic descriptor
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| ***Consequences if not approved:*** | The network is not aware of the corresponding UE capabilities. |
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| ***Clauses affected:*** | D.2.2.2, D.6.5 |
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|  | **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:*** |  |

\*\*\*\*\* Next 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;

 to the PCF if the UE has one or more stored UE policy sections identified by a UPSI with the PLMN ID part indicating the HPLMN or the selected PLMN; and

b) to indicate whether UE supports ANDSP

c) to indicte UE capabilities regarding URSP; and

d) to deliver the UE's one or more OS Ids.

\*\*\*\*\* 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 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 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 PLMN;

 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 IP 3 tuple typle in the traffic descriptor and whether the UE supports handling multiple components of the same traffic descriptor component type in a single traffic descriptor; and

e) may include the UE's one or more OS Ids in the UE OS Id IE.

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 |
| 0Spare | 0Spare | 0Spare | 0Spare | 0Spare | SupportMultiComp | SupportIP3Tuple | 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

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| --- |
| 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 IP 3 tuple type in the traffic descriptor by the UE (SupportIP3tuple) (octet 3, bit 2) |
| Bit |
| 2 |  |
| 0 | IP 3 tuple type not supported by the UE |
| 1 | IP 3 tuple type supported by the UE |
|  |
| Support of handling multiple components of the same traffic descriptor component type in a single traffic descriptor by the UE (SupportMultiComp) (octet 3, bit 3) |
| Bit |
| **3** |  |
| 0 | handling multiple components of the same traffic descriptor component type in a single traffic descriptor not supported by the UE |
| 1 | handling multiple components of the same traffic descriptor component type in a single traffic descriptor 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. |