**3GPP TSG-CT WG1 Meeting #125-eC1-205278**

**Electronic meeting, 20-28 August 2020 *was C1-205124***

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.501** | **CR** | **2584** | **rev** | **-** | **Current version:** | **16.5.1** |  |
|  | | | | | | | | |
| *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:*** | Clarification on Operator-defined access category definitions IE | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GProtoc16 | | | | |  | ***Date:*** | | | 2020-08-13 |
|  |  | | | |  | |  | | |  |
| ***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 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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Network encodes the Operator-defined access category definitions information element in NAS signalling messages to provide UE about the operator-defined access category definitions or to delete the operator-defined access category definitions at the UE.  The current format definition of ODAC IE is not clear about the maximum number “of Operator-defined access category definition”. Consequently, there is no maximum length of ODAC IE.  It is proposed to give a standard and implementable value (i.e., 32) as the maximum number “of Operator-defined access category definition”. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Clarify the maximum number “of Operator-defined access category definition” of an ODAC IE | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Unknown the maximum number of each kind of components in ODAC IE | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.11.3.38 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\*\*\*\*\* start of change\*\*\*\*\*

#### 9.11.3.38 Operator-defined access category definitions

The purpose of the Operator-defined access category definitions information element is to provide the UE with the operator-defined access category definitions or to delete the operator-defined access category definitions at the UE.

The Operator-defined access category definitions information element is coded as shown in figure 9.11.3.38.1, figure 9.11.3.38.2 and table 9.11.3.38.1.

The Operator-defined access category definitions is a type 6 information element with a minimum length of 3 octets, and maximum length of 8323 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Operator-defined access category definitions IEI | | | | | | | | octet 1 |
| Length of operator-defined access category definitions contents | | | | | | | | octet 2  octet 3 |
| Operator-defined access category definition 1 | | | | | | | | octet 4\*  octet a\* |
| Operator-defined access category definition 2 | | | | | | | | octet a+1\*  octet b\* |
| … | | | | | | | | octet b+1\*  octet g\* |
| Operator-defined access category definition n | | | | | | | | octet g+1\*  octet h\* |

Figure 9.11.3.38.1: Operator-defined access category definitions information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of operator-defined access category definition contents | | | | | | | | octet 4 |
| Precedence value | | | | | | | | octet 5 |
| PSAC | 0  Spare | 0  Spare | Operator-defined access category number | | | | | octet 6 |
| Length of criteria | | | | | | | | octet 7 |
| Criteria | | | | | | | | octet 8  octet a-1 |
| 0  Spare | 0  Spare | 0  Spare | Standardized access category | | | | | octet a\* |

Figure 9.11.3.38.2: Operator-defined access category definition

Table 9.11.3.38.1: Operator-defined access category definitions information element

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Value part of the Operator-defined access category definitions information element (octet 4 to h)  The value part of the Operator-defined access category definitions information element consists of zero or no more than 32 operator-defined access category definition fields. Each operator-defined access category definition field is coded as described in figure 9.11.3.38.2. The length of each operator-defined access category definition field is determined by the length of operator-defined access category definition contents field. | | | | | | | | | |
| Operator-defined access category definition (octet 4 to octet a): | | | | | | | | | |
| Length of operator-defined access category definition contents (octet 4)  Length of operator-defined access category definition contents indicates binary coded length of the operator-defined access category definition value field (octet 5 to octet a).  Precedence value (octet 5) | | | | | | | | | |
| Bits | | | | | | | | | |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |  |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | Precedence value 0 |
| to | | | | | | | |  |  |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | Precedence value 255 |
|  | | | | | | | | | |
| Operator-defined access category number (bits 5 to 1 of octet 6) | | | | | | | | | |
| Bits | | | | | | | | | |
| 5 | 4 | 3 | 2 | 1 |  | | |  | |
| 0 | 0 | 0 | 0 | 0 |  | | | Access category number 32 | |
| to | | | | |  | | |  | |
| 1 | 1 | 1 | 1 | 1 |  | | | Access category number 63 | |
|  | | | | | | | | | |
| Presence of standardized access category (PSAC) (bit 8 of octet 6) | | | | | | | | | |
| PSAC field indicates whether the standardized access category field is present or absent. | | | | | | | | | |
| Bit | | | | | | | | | |
| 8 |  |  | | | | | | | |
| 0 | | Standardized access category field is not included | | | | | | | |
| 1 | | Standardized access category field is included | | | | | | | |
|  | | | | | | | | | |
| Length of criteria (octet 7) | | | | | | | | | |
| Length of criteria field indicates binary coded length of the criteria field. | | | | | | | | | |
|  | | | | | | | | | |
| Criteria (octets 8 to octet a-1) | | | | | | | | | |
| The criteria field contains one or criteria components fields. Each criteria component field shall be encoded as a sequence of a one octet criteria type field and a zero or more octets criteria value field. The criteria type field shall be transmitted first. | | | | | | | | | |
|  | | | | | | | | | |
| Criteria type | | | | | | | | | |
| Bits | | | | | | | | | |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |  |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | DNN type |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |  | OS id + OS App Id type |
| 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |  | S-NSSAI type |
| All other values are reserved. | | | | | | | | | |
|  | | | | | | | | | |
| For "DNN type", the criteria value field shall be encoded as a sequence of one octet DNN length-value pair count field and one or more DNN length-value pair fields. The DNN length-value pair count field indicates the number of included DNN length-value pair fields. Each DNN length-value pair field is coded as a sequence of one octet DNN value length field and a DNN value field. The DNN value length field indicates the length in octets of the DNN value field. The DNN value field contains an APN as specified in 3GPP TS 23.003 [4]. | | | | | | | | | |
|  | | | | | | | | | |
| For "OS Id + OS App Id type", the criteria value field shall be encoded as a sequence of one octet app id value count field and one or more app id value fields. The app id value count field indicates the number of included app id value fields. Each app id value field is coded as a sequence of a sixteen octet OS id value field, one octet OS app id value length field and an OS app id value field. The OS app id value length field indicates the length in octets of the OS app id value field. The OS id value field contains a Universally Unique IDentifier (UUID) as specified in IETF RFC 4122 [35A]. The OS app id value field contains an OS specific application identifier. Coding of the OS app id value field is outside the scope of the present document. | | | | | | | | | |
|  | | | | | | | | | |
| For "S-NSSAI type", the criteria value field shall be encoded as a sequence of one octet S-NSSAI length-value pair count field and one or more S-NSSAI length-value value fields. The S-NSSAI length-value pair count field indicates the number of included S-NSSAI length-value pair fields. Each S-NSSAI length-value pair field is coded as a sequence of one octet S-NSSAI value length field and an S-NSSAI value field. The S-NSSAI value length field indicates the length in octets of the S-NSSAI value field. The S-NSSAI value field contains one octet SST field optionally followed by three octets SD field. The SST field contains a SST. The SD field contains an SD. SST and SD are specified in 3GPP TS 23.003 [4]. | | | | | | | | | |
|  | | | | | | | | | |
| Standardized access category (bits 5 to 1 of octet a) | | | | | | | | | |
| Standardized access category field indicates the access category number of the standardized access category that is used in combination with the access identities to determine the establishment cause. | | | | | | | | | |
| Bits | | | | | | | | | |
| 5 | 4 | 3 | 2 | 1 |  | | |  | |
| 0 | 0 | 0 | 0 | 0 |  | | | Access category number 0 | |
| to | | | | |  | | |  | |
| 0 | 0 | 1 | 1 | 1 |  | | | Access category number 7 | |
| All other values are reserved. | | | | | | | | | |

Editor's note: Whether the 5QI is a suitable access category criteria type is FFS.

\*\*\*\*\* end of change\*\*\*\*\*