**3GPP TSG-SA4 Meeting #**

**Sophia-Antipolis, FR, 29 Jan - 02 Feb 2024**

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| *CR-Form-v12.2* | | | | | | | | |
| **PSEUDO CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **119** | **CR** | 0058 | **rev** |  | **Current version:** | 1.0.0 |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Capability Exchange | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Tencent Cloud | | | | | | | | | |
| ***Source to TSG:*** | S4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MeCAR | | | | |  | ***Date:*** | | | 1-20-2024 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***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:*** | | Clause 7.4 capability exchange is empty. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. 6.2.5: The device capability data object to carry the device capabilities 2. 7.4: How the device uses the capability data object to communicate its capabilities | | | | | | | | |
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| ***Consequences if not approved:*** | | Lack of discovery of the UE capabilities by the network services and other UEs | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.2.5 (new), 7.4 (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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| **1st Change** |

## 6.2.5 Device capabilities signalling

The device capabilities shall be signalled using the format defined in Table 6.2.5-1.

Table 6.2.5-1 – Devie capabilities exchange format

|  |  |  |
| --- | --- | --- |
| **Name** | **Cardinality** | **Description** |
| deviceCapabilities | 0..1 | Device capabilities including the supported device profiles and optionally the detailed capabilities |
| deviceType | 1..N | Device type identifier. The device type identifiers are listed in Annex X |
| deviceDetailedCapabilities | 0..1 | Device detailed capabilities in addition to the capabilities included in the supported deviceType |
| videoDecoding | 1 | Additional video decoding capabilities. |
| decoder | 0..N | List of supported profiles and levels |
| id | 1 | Unique identifier for the profile and level. |
| concurrent\_instances | 1 | Number of concurrent instances |
| decoderInterface | 1 | Interface capabilities |
| videoEncoding | 1 | Additional video encoding capabilities. |
| encoder | 1 | List of supported profiles and levels |
| id | 1 | Unique identifier for the profile and level |
| concurrent\_instances | 1 | Number of concurrent instances |
| audioDecoding | 0..N | Additional audio decoding capabilities. |
| decoder | 1 | List of additional supported profiles and levels |
| id | 1 | Unique identifier for the profile and level |
| concurrent\_instances | 1 | Number of concurrent instances |
| decoderInterface | 1 | Interface capabilities |
| audioEncoding | 1 | Additional audio encoding capabilities |
| encoder | 0..N | List of supported profile and levels |
| id | 1 | Unique identifier for the profile and level |
| concurrent\_instances | 1 | Number of concurrent instances |
| xrRuntime | 0..1 | Capabilities of the device XR runtime |
| profile | 0..N | URI for additional supported features. |
| extensions | 0..N | List of the additional supported extension |
| sceneManager | 0..1 | Additional capabilities of the device scene manager |
| profile | 0..N | URI for supported features |

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| **2nd Change** |

## 7.4 Capability exchange

The capabilities of the device is captured in the data structure defined in 6.2.5 and is communicated with the network.