**3GPP TSG SA4 Meeting #111-e S4-201452**

Online meeting, November 11 – 20, 2020

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **Draft CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **26.512** | **CR** |  | **rev** |  | **Current version:** | **2.0.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network |  | Core Network |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Update Consumption reporting | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Enensys Technology, BBC | | | | | | | | | |
| ***Source to TSG:*** | S4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GMSA | | | | |  | ***Date:*** | | | <Res\_date> |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | 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:*** | | Alignment with Stage 2 specification and multiple correction | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | * In M1d, align the specitication with Stage 2 * In M5d, take into account of the UE mobility by moving the location information into the ConsumptionReportingUnit * Add a new complex type – typed Location * In M6d, correction in section 12.2.6. Remove the indication that the rConsumption report is an array. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.4.2, 6.4.3.X, 7.7.3.1, 11.3.3, 12.2.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  |  | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  |  | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

First Change

### 6.4.2 Simple data types

Table 6.4.2-1 below specifies common simple data types used within the 5GMS APIs, including a short description of each. In cases where types from other specifications are reused, a reference is provided.

Table 6.4.2-1: Simple data types

|  |  |  |  |
| --- | --- | --- | --- |
| Type name | Type definition | Description | Reference |
| Percentage | number | A percentage expressed as a floating point value between 0.0 and 100.0 (inclusive). |  |
| DurationSec | integer | An unsigned integer identifying a period of time expressed in units of seconds. | TS 29.122 [12] table 5.2.1.3.2‑2 |
| DateTime | string | An absolute date and time expressed using the OpenAPI date-time string format. | TS 29.122 [12] table 5.2.1.3.2‑2 |

Next Change

#### 6.4.3.x TypedLocation type

Table 6.4.3.x-1: Definition of TypedLocation type

|  |  |  |  |
| --- | --- | --- | --- |
| Property name | Data type | Cardinality | Description |
| locationIdentifierType | Enum(CellIdentifierType) | 1..1 | The type of cell location present in the location property. |
| location | string | 1..1 | Identifies the cell location. |

Next Change

### 6.4.4 Enumerated data types

#### 6.4.4.1 CellIdentifierType enumeration

Indicates the type of a cell identifier, as defined in TS 23.003 [7].

Table 6.4.4.1‑1: Definition of CellIdentifierType enumeration

|  |  |
| --- | --- |
| Enumeration value | Description |
| CGI | Cell Global Identification. |
| ECGI | E-UTRAN Cell Global Identification. |
| NCGI | NR Cell Global Identity. |

Next Change

#### 7.7.3.1 ConsumptionReportingConfiguration resource

The data model for the ConsumptionReportingConfiguration resource is specified in Table 7.7.3.1‑1.

Table 7.7.3.1-1: ConsumptionReportingConfiguration resource

|  |  |  |  |
| --- | --- | --- | --- |
| Property name | Type | Cardinality | Description |
| reportingInterval | DurationSec | 0..1 | Identifies the interval between two consecutive consumption reports. The value shall be greater than zero.  If absent, a single final report shall be sent immediately after the streaming session has ended. |
| samplePercentage | Percentage | 0..1 | The proportion of clients that shall report media consumption, expressed as a floating point value between 0.0 and 100.0.  If not specified, all clients shall send consumption reports. |
| locationReporting | boolean | 1..1 | Stipulates whether the Media Session Handler is required to provide location data to the 5GMSd AF in consumption reporting messages (in case of MNO or trusted third parties). |

Next Change

### 11.3.3 Report format

#### 11.3.3.1 ConsumptionReport format

This type represents a consumption report data. This structure is used by the Media Session Handler to report the consumption.

Table 11.3.3.1-1: Definition of ConsumptionReport format

|  |  |  |  |
| --- | --- | --- | --- |
| Attribute name | Data type | Cardinality | Description |
| mediaPlayerEntry | string | 1..1 | Identifies the Media player entry.  In the case of DASH, the media player entry pointer shall be the URL of the MPD. |
| reportingClientId | string | 1..1 | Identifies the identifier of the UE that consumes data. The client ID may be an MSISDN. |
| consumptionReportingUnits | Array(Consumption‌Reporting‌Unit) | 1..N | An array of consumption reporting units. |

#### 11.3.3.2 ConsumptionReportingUnit type

This type represents a single consumption reporting unit.

Table 11.3.3.2-1: Definition of type ConsumptionReportingUnit

|  |  |  |  |
| --- | --- | --- | --- |
| Attribute name | Data type | Cardinality | Description |
| *mediaConsumed* | string | 1..1 | Identifies the media consumed.  In the case of DASH, the value of the **Representation**@id attribute shall be quoted. |
| *startTime* | DateTime | 1..1 | The time when this consumption reporting unit started. |
| *duration* | DurationSec | 1..1 | The duration of this consumption reporting unit. |
| locations | Array (TypedLocation) | 0..1 | Identifies the UE location(s) where the media was consumed if location reporting is enabled in the Consumption Reporting Configuration (only for trusted AF).  The cardinality of objects in this array is 1..N. |

Next Change

### 12.2.6 Consumption Reporting Information

Table 12.2.6-1 provides a list status information that can be obtained from the MSH through M6d.

Table 12.2.6-1: Status Information related to Consumption Reporting

|  |  |  |  |
| --- | --- | --- | --- |
| Status | Type | Parameter | Definition |
| consumptionReport | Object |  | The latest sent consumption report. |

Table 12.2.6-2 provides a list of general notification events exposed on M6d.

Table 12.2.6-2: Notification Events related to Consumption Reporting

|  |  |  |
| --- | --- | --- |
| Status | Definition | Payload |
| CONSUMPTION\_REPORTING\_ACTIVATED | Informs that consumption reporting has been activated. | Not applicable. |
| CONSUMPTION\_REPORTING\_STOPPED | Informs that consumption reporting has been stopped. | Not applicable. |
| NEW\_CONSUMPTION\_REPORT | Informs that a new consumption report is available and has been sent. |  |

Table 12.2.6-3 provides a list of general error events through M6d.

Table 12.2.6-3: Error Events to Consumption Reporting

|  |  |  |
| --- | --- | --- |
| Status | Definition | Payload |
| ERROR\_CONSUMPTION\_REPORTING | Error in consumption reporting occurred. | Not applicable. |