**3GPP TSG SA WG4 Meeting #125 S4-231255**

**Goteborg, SE, 21 - 25 Aug 2023**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **26.512** | **CR** | **0051** | **rev** |  | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *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:*** |  | | | | | | | | |
|  |  | | | | | | | | |
| ***Source to WG:*** | Tencent | | | | | | | | |
| ***Source to TSG:*** | S4 | | | | | | | | |
|  |  | | | | | | | | |
| ***Work item code:*** | 5GMS\_Pro\_Ph2 | | | | |  | ***Date:*** | | 2023-08-14 |
|  |  | | | |  | |  | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | Rel-18 |
|  |  | | | | | | | | |
| ***Reason for change:*** | | Defines the media entry points for multi-entry downlink streaming as well as uplink streaming in a unified way:  1. Enables multi-entry downlink streaming  2. Enabes multi-entry uplink streaming  3. Uses the same property for downlink resource URL and the uplink base URL | | | | | | | |
|  | |  | | | | | | | |
| ***Summary of change:*** | | 1. Streaming Access in Service Access Information | | | | | | | |
|  | |  | | | | | | | |
| ***Consequences if not approved:*** | | Lack of support in both cases of downlink and uplink streaming. | | | | | | | |
| ***Q*** | |  | | | | | | | |
| ***Clauses affected:*** | | 8, 8.1, 11.2.3.1 | | | | | | | |
|  | |  | | | | | | | |
|  | | **Y** | **N** |  | | | |  | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | |
|  | |  | | | | | | | |
| ***Other comments:*** | |  | | | | | | | |
|  | |  | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | |

FIRST CHANGE

# 8. Media Ingest and publish (M2) protocols

## 8.1 General

The set of content protocols supported by the 5GMS AS is listed in table 8.1-1 below:

Table 8.1-1: Supported content protocols

| Description | Term identifier | Clause |
| --- | --- | --- |
| Content ingest protocols at interface M2d | | |
| HTTP pull-based content ingest protocol | urn:3gpp:5gms:content-protocol:http-pull-ingest | 8.2 |
| DASH-IF push-based content ingest protocol | urn:3gpp:5gms:content-protocol:dash-if-ingest | 8.3 |
| Content egest protocols at interface M2u | | |
| HTTP pull-based content egest protocol | urn:3gpp:5gms:content-protocol:http-pull-egest | 8.4 |
| DASH-IF push-based content egest protocol | urn:3gpp:5gms:content-protocol:dash-if-ingest | 8.5 |

NEXT CHANGE

#### 11.2.3.1 ServiceAccessInformation resource type

The data model for the ServiceAccessInformation resource is specified in table 11.2.3.1-1 below. Different properties are present in the resource depending on the type of Provisioning Session from which the Service Access Information is derived (as indicated in the provisioningSessionType property) and this is specified in the Applicability column.

Table 11.2.3.1‑1: Definition of ServiceAccessInformation resource

| Property name | Type | Cardinality | Usage | Description | Applicability |
| --- | --- | --- | --- | --- | --- |
| provisioningSessionId | ResourceId | 1..1 | RO | Unique identification of the M1 Provisioning Session. | All types |
| provisioningSession‌Type | Provisioning‌Session‌Type | 1..1 | RO | The type of Provisioning Session. | All types. |
| streamingAccess | Object | 0..1 | RO |  | All types |
| entryPoints | Array(M5‌Media‌Entry‌Point) | 0..M | RO | A list of alternative Media Entry Points for the 5GMS Client to choose between. |
| locator | Url | 1..1 | RO | For downlink streaming, a pointer to a document at reference point M2 that defines a media presentation e.g. MPD for DASH content or URL to a video clip file, that can be streaming via M4d  For uplink streaming, it is the URL to the 5GMSU AS to which media can be streamed directly at M4u, with proper path extension for the media object. |
| contentType | String | 0..1 | RO | The MIME content type of this Media Entry Point, |  |
| profiles | Array(Uri) | 0..1 | RO | An optional list of conformance profile URIs with which this Media Entry Point is compliant.  If present, the array shall contain at least one item. |  |
| eMBMS‌Service‌Announcement‌Locator | AbsoluteUrl | 0..1 | RO | A pointer to a document that defines a User Service Announcement for eMBMS where the service announcement file is available. | Downlink |
| clientConsumptionReporting‌Configuration | Object | 0..1 | RO |  | downlink |
| reportingInterval | DurationSec | 0..1 | RO | The time interval, expressed in seconds, between consumption report messages being sent by the Media Session Handler. The value shall be greater than zero.  When this property is omitted, a single final report shall be sent immediately after the media streaming session has ended. |
| serverAddresses | Array(AbsoluteUrl) | 1..1 | RO | A list of 5GMSd AF addresses (URLs) where the consumption reporting messages are sent by the Media Session Handler. See NOTE.  Each address shall be an opaque base URL, following the 5GMS URL format specified in clause 6.1 up to and including the {apiVersion} path element. |
| locationReporting | Boolean | 1..1 | RO | 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). |
| accessReporting | Boolean | 1..1 | RO | Stipulates whether the Media Session Handler is required to provide consumption reporting messages to the 5GMSd AF when the access network changes during a media streaming session. |
| samplePercentage | Percentage | 1..1 | RO | The percentage of media streaming sessions that shall send consumption reports, expressed as a floating point value between 0.0 and 100.0. |
| dynamicPolicyInvocation‌Configuration | Object | 0..1 | RO |  | downlink,  uplink |
| serverAddresses | Array(AbsoluteUrl) | 1..1 | RO | A list of 5GMSd AF addresses (URLs) which offer the APIs for dynamic policy invocation sent by the Media Session Handler. See NOTE.  Each address shall be an opaque base URL, following the 5GMS URL format specified in clause 6.1 up to and including the {apiVersion} path element. |
| validPolicyTemplateIds | Array(ResourceId) | 1..1 | RO | A list of Policy Template identifiers which the 5GMS Client is authorized to use. |
| sdfMethods | Array(SdfMethod) | 1..1 | RO | A list of recommended service data flow description methods (descriptors), e.g. 5-Tuple, ToS, 2-Tuple, etc., which should be used by the Media Session Handler to describe the service data flows for the traffic to be policed. |
| externalReferences | Array(String) | 0..1 | RO | Additional identifier for this Policy Template, unique within the scope of its Provisioning Session, that can be cross-referenced with external metadata about the media streaming session.  Example: "HD\_Premium". |
| clientMetricsReporting‌Configurations | Array(Object) | 0..1 | RO |  | downlink,  uplink |
| *metricsReporting‌ConfigurationId* | ResourceId | 1..1 | RO | The identifier of this metrics reporting configuration, unique within the scope of provisioningSessionId.  The value shall be the same as the corresponding identifier provisioned at reference point M1. |
| serverAddresses | Array(AbsoluteUrl) | 1..1 | RO | A list of 5GMS AF addresses to which metrics reports shall be sent. See NOTE.  Each address shall be an opaque base URL, following the 5GMS URL format specified in clause 6.1 up to and including the {apiVersion} path element. |
| scheme | Uri | 1..1 | RO | The metrics reporting scheme that metrics reports shall use (see clause 4.7.5). |
| dataNetworkName | Dnn | 0..1 | RO | The DNN which shall be used when sending metrics reports. If not specified, the name of the default DN shall be used. |
| reportingInterval | DurationSec | 0..1 | RO | The time interval, expressed in seconds, between metrics reports being sent by the Media Session Handler. The value shall be greater than zero.  When this property is omitted, a single final report shall be sent immediately after the media streaming session has ended. |
| samplePercentage | Percentage | 1..1 | RO | The percentage of media streaming sessions that shall report metrics, expressed as a floating point value between 0.0 and 100.0. |
| urlFilters | Array(String) | 0..1 | RO | A non-empty list of URL patterns for which metrics reporting shall be done. The format of each pattern shall be a regular expression as specified in [5].  If not specified, reporting shall be done for all sessions. |
| Metrics | Array(String) | 1..1 | RO | A list of metrics which shall be reported. |
| networkAssistance‌Configuration | Object | 0..1 | RO |  | downlink,  uplink |
| serverAddresses | Array(AbsoluteUrl) | 1..1 | RO | A list of 5GMS AF addresses (URLs) that offer the APIs for 5GMS AF-based Network Assistance, for access by the 5GMSd Media Session Handler. See NOTE.  Each address shall be an opaque URL, following the 5GMS URL format specified in clause 6.1 up to and including the {apiVersion} path element. |
| client‌EdgeResources‌Configuration | Object | 0..1 | RO | Present only for Provisioning Sessions with client-driven edge computing management mode provisioned. | Downlink,  uplink |
| eligibilityCriteria | Edge‌Processing‌Eligibility‌Criteria | 0..1 | RO | Conditions for activating edge resources for media streaming sessions in the scope of this Service Access Information. (See clause 6.4.3.8.) |
| easDiscoveryTemplate | EAS‌Discovery‌Template | 1..1 | RO | A template for the EAS discovery filter that shall be used by the EEC to discover and select a 5GMS EAS instance to serve media streaming sessions in the scope of this Service Access Information. (See clause 11.2.3.2.) |
| easRelocation‌Requirements | M5EAS‌Relocation‌Requirements | 0..1 | RO | EAS relocation tolerance and requirements.  If absent, the EEC shall assume that relocation is tolerated by all 5GMS EAS instances in the scope of this Service Access Information. (See clause 11.2.3.3.) |
| NOTE: In deployments where multiple instances of the 5GMSd AF expose the Media Session Handling APIs at M5, the 5G System may use a suitable mechanism (e.g. HTTP load balancing or DNS resolution) to direct requests to a suitable AF instance. | | | | | |

END OF CHANGES