**3GPP SA4#127-bis-eS4-240673**

Online, 08-12 Apr 2024

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| *CR-Form-v12.2* | | | | | | | | |
| **PSEUDO CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **26.510** | **CR** | pseudo | **rev** |  | **Current version:** | 1.1.4 |  |
|  | | | | | | | | |
| *For* [***HELP***](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:*** | Improving M6 general parts | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Tencent Cloud | | | | | | | | | |
| ***Source to TSG:*** | S4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GMS\_Pro\_Ph2 | | | | |  | ***Date:*** | | | 2024-04-20 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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:*** | | Updating clause 10, interface at reference point M6 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. 10.2.1: new entry in the table 2. 10.2.2: updating the methods 3. 10.2.3: updating the events | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | M6 is underdefined and not clear. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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** |

# 10 UE media session handling APIs

## 10.1 Introduction

This clause defines the abstract client APIs exposed by the Media Session Handler to the Media-aware Application at reference point M6 and to the Media Access Function at reference point M11. The APIs may be used to query a subset of information from Service Access Information and its updates as well as to receive the notifications of various events during the media delivery session.

NOTE: Client-driven management of edge processing resources via reference point M6 is not specified in this release.

## 10.2 Media Session Handler client API

### 10..2.1 Media Session Handler internal properties

The Media Session Handler maintains internal properties as defined table 10.2.1-1. Note that the parameters are conceptual. They serve only for the purpose of defining the media session handling APIs.

Table 10.2.1-1: Parameters of Media Session Handler

|  |  |  |
| --- | --- | --- |
| States and Parameters | | Definition |
| \_Configuration[externalServiceId] | | The Media Session Handler maintains a separate configuration for each set of Service Access Information it has knowledge of, indexed by its external service identifier. |
|  | \_mediaAccess | Media access information including the provisioning session type and streaming access information. |
|  | \_networkAssistance | Network Assistance configuration. |
|  | \_policyTemplate | Policy Template configuration. |
|  | \_consumptionReporting | Consumption reporting configuration. |
|  | \_metricsReporting | Metrics reporting configuration. |
| \_status[mediaDeliverySessionId] | | The Media Session Handler maintains a separate status record for each currently active media delivery session, indexed by media delivery session identifier. |
|  | \_generalStatus | General status information. (See table 10.2.3‑1.) |
|  | \_dynamicPolicyStatus | Dynamic Policy status information. (See table 10.3.2-1) |
|  | \_networkAssistanceStatus | Network Assistance status information. (See table 10.4.2-1) |
|  | \_consumptionReportingStatus | Consumption Reporting status information. (See table 10.5.2‑1.) |
|  | \_metricsReportingStatus | Metrics Reporting status information. (See table 10.6.2‑1.) |

A subset of the above information which is needed by the Application and/or Media Access Function is accessible through reference point M6 and M11, respectfully.

### 10.2.2 General Media Session Handler methods

#### 10.2.2.1 Get Service Access Information

The method getServiceAccessInformation() is used to request the Media Session Handler retrieves the latest Service Access Information from the Media AF. The input and return parameters of the method are defined in tables 10.2.2.1-1 and 10.2.2.1-2. Alternatively, the Media-aware Application or Media Access Function may subscribe to event which provide notification of a Service Access Information update.

Table 10.2.2.1-1: Input parameters for getServiceAccessInformation() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| serviceUrl | String | None or the 3GPP Service URL. |

Table 10.2.2.1-2: Return parameters for getServiceAccessInformation() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| SAIInfo | Object | The subset of Service Access Information. |

#### 10.2.2.2 Retrieve media access information

The method getMediaAccessInformation() is used for retrieving the provisioning session type and streaming access information including Media Entry Points. The input and return parameters of the method are defined in tables 10.2.2.2-1 and 10.2.2.2-2.

Table 10.2.2.2-1: Input oarameters for getMediaAccessInformation() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| serviceUrl | String | None or the 3GPP Service URL. |

Table 10.2.2.2-2: Return parameters for getMediaAccessInformation() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| MAIInfo | Object | The media access information including the provisioning type and media entry points. |

#### 10.2.2.3 Start media delivery session

There are different ways to start a Media Delivery Session. One typical case is that the start is bound to the call by the 5GMS-Aware Application directly at reference point M6 or indirectly at reference point M11 through Media Access Function with an Media Entry Point URL obtained from Service Access Information. The startDeliverySession() method offers a client–server like interface. The input and return parameters of the method are specified in tables 10.2.2.3-1 and 10.2.2.3-2. The service is bound such that the Media Session Handler communicates back to the 5GMS-Aware Application or Media Access Function with the status of the Media Delivery Session, including a Media Delivery Session identifier assigned by the Media Session Handler that is used in subsequent interactions with it.

Table 10.2.2.3-1: Input parameters for startDeliverySession() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| mdIDOrServiceUrl | String | The media delivery session id or the 3GPP Service URL. |

Table 10.2.2.3-2: Return parameters for startDeliverySession() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| mdID | string | The media delivery session id. |

#### 10.2.2.4 Stop media delivery session

The method stopDeliverySession() is used to (temporarily) stop a Media Delivery Session without releasing the associated resources and state in the Media Session Handler. The input and return parameters of the method are specified in tables 10.2.2.4-1 and 10.2.2.4-2.

Table 10.2.2.4-1: Input parameters for stopDeliverySession() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| mdIDOrServiceUrl | string | The media delivery session id or the 3GPP Service URL. |

Table 10.2.2.4-2: Return parameters for stopDeliverySession() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| SESSION\_HANDLING\_STATUS | String | Status as described in 10.2.3. |

#### 10.2.2.5 Tear down media delivery session

The method tearDownDeliverySession() is used to release the allocated resources and the media delivery session identifier. The input and return parameters of the method are specified in tables 10.2.2.5-1 and 10.2.2.5-2.

Table 10.2.2.5-1: Input parameters for tearDownDeliverySession() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| mdIDorServiceUrl | String | The media delivery session id or the 3GPP Service URL. |

Table 10.2.2.5-2: Return parameters for tearDownDeliverySession() method

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| SESSION\_HANDLING\_STATUS | String | Status as described in 10.2.3. |

### 10.2.3 General Media Session Handler information

Table 10.2.3-1 specifies the status information that can be obtained from the Media Session Handler through reference points M6 and M11.

Table 10.2.3-1: General Media Session Handler Status Information

|  |  |  |  |
| --- | --- | --- | --- |
| Status | Type | Parameter | Definition |
| SESSION\_HANDLING\_STATUS | Enumeration:  STARTED  STOPPED  ERRORED  TEARED-DOWN | Media delivery session identifier | The status of media delivery session:  STARTED: The Media Delivery Session is assigned, and media is being delivered.  STOPPED: The Media Delivery Session is assigned, but media is not being delivered at this time.  ERRORED: There is an error in media session handling.  TORN\_DOWN: The Media Delivery Session was torn down, and resources were released. |

Table 10.2.3-2 provides a list of general notification events exposed at references point M6 and M11.

Table 10.2.3-2: General Media Session Handler Notification Events

|  |  |  |
| --- | --- | --- |
| Event | Definition | Payload |
| SESSION\_HANDLING\_STARTED | Triggered when media is being delivered for a particular media delivery session. | Media delivery session identifier. |
| SESSION\_HANDLING\_STOPPED | Triggered when media session handling stopped for a specific media delivery session. | Media delivery session identifier. |
| SESSION\_HANDLING\_TORN\_DOWN | Triggered when media session handling was activated for a specific Media Entry Point. | Media delivery session identifier. |

Table 10.3.3-3 provides a list of general error events exposed at references point M6 and M11.

Table 10.2.3-3: General Media Session Handler Error Events

|  |  |  |
| --- | --- | --- |
| Status | Definition | Payload |
| ERROR\_SESSION\_HANDLING | Triggered when there is an error in the media session handling. | Media delivery session identifier. |