**SA WG4 Meeting #109E (e-meeting) *S4-200811***

**E-meeting, 20th May – 3rd June 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **26.501** | **CR** | **<CR#>** | **rev** | **<Rev#>** | **Current version:** | **16.3.1** |  |
|  |
| *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 |  | Radio Access Network |  | Core Network | **x** |

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|  |
| ***Title:***  |  Correction on Media Ingest procedure |
|  |  |
| ***Source to WG:*** | Tencent |
| ***Source to TSG:*** | S4 |
|  |  |
| ***Work item code:*** | 5GMSA |  | ***Date:*** | 2020-5-15 |
|  |  |  |  |  |
| ***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 canbe 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)* |
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| ***Reason for change:*** | 1. In step 3 of figure 5.4-1, the 5GMSd AS should response whether the configuration is successful or not.
2. It’s not clear which entity allocate the Content Hosting Configuration identifier.
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| ***Summary of change:*** | 1. Adding the response message from 5GMSd AS to 5GMSd AF in step 3.
2. Clarify that the Ingest and Distribution configuration ID for the push mode should be sent from the 5GMSd AS to 5GMSd AF within the response message in step 3. Adding Content Hosting Configuration identifier for the push mode in step 3 of figure 5.4-1.
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| ***Consequences if not approved:*** | 1. The 5GMSd AF can’t know whether the configuration in 5GMSd AS is successful or not.
2. It’s not clear which entity allocates the Ingest and Distribution configuration ID.
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| ***Clauses affected:*** | 5.4  |
|  |  |
|  | **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 ...  |
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| ***Other comments:*** |  |

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| ***This CR's revision history:*** |  |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* First Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## 5.4 Media Ingest for Downlink Streaming

The 5G Media Streaming architecture defines a common interface for content ingest for downlink media streaming over 5G. The control part of the ingest interface may be performed through the NEF. After the ingest, the content is accessible from the 5GMSd AS through a new location identifier.

The interface supports the ingest of the following types of content:

- Live streaming content

- On demand streaming content

- Static files such as images, scene description files, etc.

The interface provides an API that allows a 5GMSd AS to create/update/delete an Ingest and Distribution configuration. An Ingest and Distribution configuration contains all the parameters and configurations to a particular content ingest and distribution setup.

NOTE 1: In the current version of the present document, the ingest interface only supports Unicast downlink streaming.

The media ingest procedure is as follows:



Figure 5.4-1: Media Ingest procedure

The steps are explained as follows:

1: Initialization: the external content provider discovers the entry point, gets authorization and authentication. The procedures should leverage existing stage 3 definitions for northbound APIs e.g. xMB and CAPIF.

2: Create Ingest and Distribution configuration: the external 5GMSd AS creates a new Ingest and Distribution configuration for its content through the MNO's 5G system. It associates it with a domain name, supplies the certificate for HTTPS access to the content, sets the caching rules per media type, the distribution area, distribution protocol, logging information, register notifications, etc.

3: Provision 5GMSd AS(s): The 5GMSd AF configures the related 5GMSd AS(s) to prepare for media ingest for that particular Ingest and Distribution configuration. This step may involve instructing the 5GMSd AS(s) to set the appropriate caching rules. The 5GMSd AS(s) will respond whether the configuration is successful or not. Upon successful configuration, the 5GMSd AS(s) will also include the Content Hosting Configuration identifier, for the push mode within the response message.

4: Update configuration information: the 5GMSd AF communicates the Ingest and Distribution configuration of the 5GMSd AS(s) to the External Media Application Servers for further Media push or pull. For the push mode, upon successful configuration, the 5GMSd AF will respond with the Content Hosting Configuration identifier, and the location of the 5GMSd AS to which to send the content.

5: Media data push or pull: The 5GMSd AS(s) may start pulling or receiving (if using push mode).

NOTE 2: Pull of Media content from the external 5GMSd AS(s) may be triggered by a request from the 5MGS Client.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END CHANGES \*\*\*\*\*\*\*\*\*\*\*\*\*\*