**3GPP TSG-S4 Meeting #116-eS4-211389**

**Online, 10th – 19th November 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **26.804** | **CR** |  | **rev** |  | **Current version:** | 0.5.0 |  |
|  | | | | | | | | |
| *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:*** | Potential solution for network slicing in 5GMS | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm Incorporated | | | | | | | | | |
| ***Source to TSG:*** | S4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | FS\_5GMS\_EXT | | | | |  | ***Date:*** | | | 4th November 2021 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| ***Reason for change:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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| **First Change** |

### 5.12.6 Candidate Solutions

#### 5.12.6.1 Network slices and Operation Points provisioned at M1

The 5GMS Application Provider may use the M1 provisioning interface to define a set of network slices that can be used for the media streaming sessions that it offers. This is done when the 5GMS Application Provider would like to request that its media traffic is isolated from other traffic. This may facilitate features such charging and QoS accounting.

It may associate each operation point (e.g. 4K HDR, HD, SD) with a dedicated network slice. Access to each network slice at reference point M4 is restricted to UEs with a valid subscription to that service level. The list or groups of users that are to be authorized to use a certain slice is provided by the 5GMS Application Provider during the provisioning step and can be updated subsequently.

Figure 5.12.6.1‑1 below shows a call flow for this solution:



Figure 5.12.6.1‑1: Call flow for provisioning network slices and Operation Points

The steps are as follows:

1. The 5GMS Application Provider provisions the configuration for all upcoming media streaming sessions in the 5GMS AF at reference point M1.

a. The Application Provider declares a requirement for one or more network slices that correspond to the operation points that it offers for the media streaming service.

b. The 5GMS AF requests the MnS to create or update a set of network slices based on the provided provisioning information. The MnS for network slice management capability exposure is currently being studied in SA5 in TR 28.824. The characteristics of a network slice are stored as part of the ServiceProfile as defined in TS 28.541.

c. The Media Session Handler in the 5GMS Client retrieves Service Access Information from the 5GMS AF. The response includes a mapping between the operation point and the S-NSSAI that should be used by the session.

2. The 5GMS-Aware Application retrieves the entry point for the media streaming session from the 5GMS Application Provider at reference point M8. The returned entry point contains information about the allowed Operation Points, e.g. in the DASH service descriptor.

3. The 5GMS-Aware Application selects one of the offered Operation Points.

4. The application informs the Media Session Handler about the start of a new media streaming session and indicates the selected Operation Point.

5. The Media Session Handler informs the 5GMS AF about the starting media streaming session and the desired Operation Point.

6. The 5GMS AF requests the application of the corresponding QoS profile to the media streaming session.

7. The Media Session Handler may request the establishment of a new PDU session or the modification of an existing PDU session to use the allowed network slice as indicated by the S-NSSAI. Note that the PDU session is not supposed to be the default PDU session but rather one dedicated for the media streaming session traffic. The PDU session establishment and update procedures are defined in clause 8.3 of TS 24.501.

8. The AMF may request admission control to use the selected slice from the NSACF.

9. If allowed, the PDU session is established/updated to use the selected S-NSSAI.

10. Media streaming commences at reference point M4.

To support this high-level procedure:

- The streaming session uses the eMBB SST slice/service type.

- The Slice Differntiator is mapped to an operation point of the service that is indicated through the externalReference as defined in clause 7.9.3.1 of TS 26.512 [16].