3GPP TSG|WG-SA4 Meeting #116 S4-211659

Online, 9th – 19th November 2021 (revision of xx-yyxxxx)

**Source: SA4**

**Title: New WID on Edge Extensions to 5GMS Stage 3**

**Document for: Approval**

**Agenda Item:**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>   
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: Edge Extensions to 5GMS Stage 3

Acronym: 5GMS\_EDGE\_3

Unique identifier:

Potential target Release: *Rel-17*

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  | X |  | X |  |
| No | X |  | X |  |  |
| Don't know |  |  |  |  | X |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

{Tick one box. "**Feature** / **Building Block** / Work Task" form a hierarchical structure. E.g. no Building Block can be proposed without a corresponding parent Feature. The full structure of all existing Work Items is shown in the 3GPP Work Plan in <ftp://ftp.3gpp.org/Information/WORK_PLAN>}

|  |  |
| --- | --- |
| X | Feature |
|  | Building Block |
|  | *Work Task* |
|  | Study Item |

## 2.2 Parent Work Item

For a brand-new topic, use “N/A” in the table below. Otherwise indicate the parent Work Item.

|  |  |  |  |
| --- | --- | --- | --- |
| Parent Work / Study Items | | | |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| 5GMS\_EDGE | SA4 | 920009 | Edge Extensions to the 5G Media Streaming Architecture |

### 2.3 Other related Work Items and dependencies

{List here other Work Items which relate to the proposed one, such as a Work Item in an earlier Release if further enhancing the feature from the previous Release)}

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| 900034 | CT1 aspects for Enabling Edge Applications |  |
| 900035 | CT3 aspects for Enabling Edge Applications |  |
| 920019 | Edge Computing Management |  |

**~~Dependency on non-3GPP (draft) specification:~~**

# 3 Justification

Edge media processing is an enabler for a variety of immersive media streaming services, such as AR/MR and cloud gaming, which require stringent QoS guarantees to operate properly.

5GMS architecture extensions to support edge media processing have been developed as part of the 5GMS\_EDGE work item. These architecture extensions are mainly based on the EDGEAPP architecture and integrate the edge capabilities with 5G media services architecture.

Related extensions to the 5G media services protocols and APIs are required as part of corresponding stage 3 work.

# 4 Objective

The work item has the following objectives:

1. Extend the M1 interface and APIs to support the provisioning of edge resources for media services
2. Enhance the M5 interface and APIs to support the configuration, discovery, QoS support, tracking, and relocation of edge processing resources
3. Define the 5GMS AF and 5GMS AS application context and the corresponding transfer procedures
4. Any other related stage 3 enablers for edge media processing

# 5 Expected Output and Time scale

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| New specifications {One line per specification. Create/delete lines as needed} | | | | | |
| Type | TS/TR number | Title | For info  at TSG# | For approval at TSG# | Rapporteur |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
| 26.512 | Extend 5GMS interfaces and APIs to add support for edge media processing. | #95 |  |
|  |  |  |  |

# 6 Work item Rapporteur(s)

Bouazizi, Imed, Qualcomm Inc., bouazizi@qti.qualcomm.com

# 7 Work item leadership

SA4

# 8 Aspects that involve other WGs

CT1 and CT3 stage 3 APIs for EDGEAPP.

Management APIs for edge as defined by SA5.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Qualcomm Incorporated |
|  |
|  |
|  |
|  |
|  |