**3GPP TSG-SA5 Meeting #148e *S5-233462rev2***

**Electronic meeting, Online, 17 -25 April 2023**

**Source: China Mobile**

**Title: New WID on Charging Aspects for SMF and MB-SMF to Support 5G Multicast-broadcast Services**

**Document for: Approval**

**Agenda Item: 7.2**

Title: Charging Aspects for SMF and MB-SMF to Support 5G Multicast-broadcast Services

Acronym: 5MBS\_CH

Unique identifier: TBD

Potential target Release: Rel-18

# 1 Impacts

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

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
|  | Study |
|  | Normative – Stage 1 |
| X | Normative – Stage 2 |
| X | Normative – Stage 3 |
|  | Normative – Other\* |

**\* Other = e.g. testing**

## 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) |
|  |  |  |  |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| 980009 | Architectural enhancements for 5G multicast-broadcast services (5MBS) | SA2 work item |
| 910002 | CT aspects of the architectural enhancements for 5G multicast-broadcast services | CT work item |

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

# 3 Justification

SA2 has studied architectural enhancements for 5G multicast-broadcast services in TR 23.757 and specified architecture enhancements for 5G multicast-broadcast services in TS 23.247, in terms of:

* 5G system based architecture, network functions (e.g., SMF, MB-SMF) and procedures for the 5G multicast-broadcast services.
* The support for functions such as how to deliver multicast and broadcast communications including support within certain location areas, mobility, MBS session management and QoS.

The following charging scenarios should be supported for 5G multicast-broadcast services in release 18:

* Broadcast Services with transmission modes of multicast transport and unicast tunnel;
* Multicast Services with MBS session and associated PDU session, and the mobility of multicast MBS service.

# 4 Objective

The objective of this work item is to specify charging aspects of the 5G multicast-broadcast services defined in TS 23.247, including:

* The charging scenarios for multicast and broadcast services;
* The charging enhancement to NFs (i.e. SMF, MB-SMF) for multicast and broadcast services;
* The charging information and relevant charging procedures for multicast and broadcast services;
* The corresponding Open API and ASN.1 for multicast and broadcast services charging.

NOTE：Charging aspect for MBS-eMBMS interworking is not involved in this work item.

# 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 |
| 32.240 | Update charging architecture to support5MBS. | TSG#102  (Dec. 2023) |  |
| 32.255 | Update charging information and procedures to support5MBS. | TSG#102  (Dec. 2023) |  |
| 32.298 | Update CHF-CDR ASN.1 to support 5MBS. | TSG#103  (Mar. 2024) |  |
| 32.291 | Update Nchf\_ConvergedCharging service API to support5MBS. | TSG#103  (Mar. 2024) |  |

# 6 Work item Rapporteur(s)

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# 7 Work item leadership

SA5

# 8 Aspects that involve other WGs

SA2, CT3 and CT4.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| China Mobile |
| Huawei |
| HiSilicon |
| CBN |
| CATT |
| ZTE |