**SA WG2 Meeting #139E e-meeting S2-2004104r09**

**June 1 – 12, 2020, Elbonia (revision of S2-20xxxxx)**

**Source: vivo, Huawei, Nokia, ZTE**

**Title: KI #7, Sol #1: Update of service level**

**Document for: Approval**

**Agenda Item: 8.9**

**Work Item / Release: FS\_5MBS / Rel-17**

*Abstract of the contribution: Update of Service Level.*

# 1. Introduction

The functional requirement list is not finished for service level. This paper tries to complete the requirement list for service level.

**Comments on term "transparent mode"**

The key issue description suggests (as example) a "transparent" mode.

However, in the current specifications, in particular TS 23.346, the term "transparent" merely denotes a mode where user plane data are transported transparently by the multicast service. (In other words, for MBMS the BM-SC does not apply any operation in the user plane, e.g. FEC or ROHC.)

TS 23.246 contains the following:

*There are 2 MBMS Service Types considered for TV service:*

*- MBMS transport only mode:*

*- The 3GPP network provides only transport of data/TV content in a transparent manner.*

*- The 3rd party content provider's signalling and data transferred via MBMS bearer(s) are transparent to BM-SC and the MBMS bearer service.*

*- All other service aspects, e.g. decision of whether to send data over broadcast or unicast, is not within 3GPP network, and assumed to be performed by application server.*

*- MBMS full service mode:*

*- 3GPP MBMS system provides full service layer capability.*

*- BM-SC is aware of the content stream and is capable of transforming the content stream into 3GPP compliant stream.*

*- BM-SC can perform decision on whether to switch an MBMS user service between broadcast or unicast service.*

This terminology is only applicable for the enTV service and relies on a network architecture including the BM-SC. It thus seems not appropriate for the present study.

# 2. Proposal

It is proposed to include following update into TR 23.757.

**FIRST CHANGE**

6.1 Solution #1: Multicast service levels

6.1.1 Functional description

The following service levels for the multicast communication service are defined:

NOTE: Transport Only mode and Full-Service mode of operation as defined in TS 23.246 [4] differ from the service levels defined here.

**Basic Service Level**

Requirements for the basic service level are mandatory to be supported. The following requirements are defined:

- Media are transported transparently through the 5GS;

- Request to receive the multicast service;

- Efficient packet distribution from the 5GS ingress to (R)AN node(s);

- Efficient data delivery from (R)AN node(s) to the UE.

Editor's note: It is FFS if the list is complete.

**Enhanced Service Level**

The requirements for the Basic service level also apply for the Enhanced Service Level. Additional requirements for the Enhanced Service Level are listed below. Different requirements out of this set may be necessary to address specific use cases.

- Local MBS service;

- User authentication and authorization;

NOTE 1: User authentication and authorization can be done by 5GS or AF or both, or even not needed for a multicast communication service.

* Explicit configuration of multicast session by network function external to the 5GS including:

- Group member management;

- Enhanced QoS support;

NOTE 2: 5G MBS can provide different QoS other than default QoS for different multicast groups.

- Content security protection.

Editor's note: It is FFS if the list is complete.

6.1.2 Procedures

It is expected that procedures to address the requirements for the service levels defined in this solution proposal are proposed as part of other solution proposals.

6.1.3 Impacts on services, entities and interfaces

It is expected that an impact analysis to address the requirements for the service levels defined in this solution proposal are proposed as part of other solution proposals.

**END OF CHANGES**