**3GPP TSG-WG SA2 Meeting #143E e-meeting *S2-210xxxx***

**Elbonia, February 24 – March 09, 2021 (revision of S2-210xxxx)**

**Source: Huawei, HiSilicon**

**Title: New TS: Local MBS service**

**Document for: Approval**

**Agenda Item: 8.9**

**Work Item / Release: 5MBS / Rel-17**

*Abstract: This document adds local multicast service to the new TS*

# Background and Introduction

In the skeleton of the new TS, there is a section for "Local MBS service".

# Proposal

It is proposed to capture the following changes vs. TS 23.247.

\* \* \* \* First change\* \* \* \*

## 6.2 Local MB service

Local multicast service is used to enable the 5GC provide location-specific downlink data. Two types of local multicast service are supported, namely the local multicast service with the location-dependent content, and the limited local multicast service distribution.

* For local multicast service with the location-dependent content, a single MBS Session ID is used, and the MBS content distributed by the 5GC could be different depending on the location area where the UE is residing. To support different location-dependent content, an additional identifier, Flow ID, is assigned for each location area. The Flow ID is used in combination with the multicast session ID in network internal signalling, to identify a location dependent part of the multicast session. Such location area information (i.e., the Flow ID and associating location area information) is transparent to the UE(s) of the MBS group.

RAN3

UE

RAN4

UE

Content provider

Local provider

RAN2

RAN*1*

5GC

MBS Session ***a***, flow ***x***

MBS Session ***a***, flow ***y***

**Location area A1**

**Location area A2**

Figure 6.2-1 Schematic diagram of local multicast service with the location-dependent content.

* For limited local multicast service distribution, the Multicast service is only available for a certain area, and the UE needs to obtain the location area information in order to trigger the session join procedure, to enable the UE to trigger the session join procedure only within the location area.

RAN3

UE

RAN4

UE

Content provider

RAN2

RAN1

5GC

MBS Session ***a***

**Location area**

**Area not belongs to location area**

Figure 6.2-2 Schematic diagram of limited local multicast service distribution.

Editor's Note: The UE could either obtain location area information via NAS signalling, or via MBS service announcement, the details are FFS.

The network will not continue sending the multicast data when UE moves out of the location area of the multicast data. The UE is not expected to request to join a multicast group when the UE is out of the location area. The AF may not aware the location area information, in that case the network converts the received geographical information into location area information.

Editor's Note: The details are FFS.

\* \* \* \* End of changes \* \* \* \*