**3GPP TSG-RAN WG3 Meeting #114-e *R3-21xxxx***

**E-meeting, 1-11 Nov 2021**

**Title:** (TP to TS 38.410 BL CR) Multicast Session Management

**Source:** Huawei, CBN, Lenovo, Motorola Mobility, Qualcomm Incorporated, China Unicom, China Telecom

**Agenda item:** 22.2.2

**Document Type:** Other

# 1. Introduction

**The following progresses were made during online discussion:**

|  |
| --- |
| **For Multicast Session Manamgenet**  **About providing mapped QoS flow and associated QoS flow information from CN to RAN, update UE associated NGAP: *PDU Session Resource Modify Request Transfer* IE and *PDU Session Resource Setup Request Transfer* IE.**  FFS on how to perform admission control for Multicast session and MBS Context information transmission.  **Introduce a non-UE associated NGAP Class1 Multicast Session Update procedure triggered by MB-SMF to support multicast session update in case the change of some of QoS parameters and/or service area.**  **Introduce non-UE associated NGAP Class1 Multicast Session Activation procedure and Multicast Session Deactivation procedure, FFS on whether a single procedure or separate procedures should be used for activation/update/deactivation.**  **WA: introduce new MB-SMF containers in TS 38.413, subject to SA2/CT4. Applicable for both MC and BC.**  **Introduce one or two non-UE associated Class1 NGAP procedure(s), triggered by the gNB to implement Multicast Distribution Setup function, and Multicast Distribution Release function.**  Whether to implement in one procedure or two procedures is FFS to be decided in next meeting  **For location dependent Multicast MBS service, the MBS Distribution Setup/Release procedure is used to setup/release the NG-U tunnel for an area Session.**   1. **FFS whether the shared NG-U tunnel control procedures for MC and BC are combined.** 2. **FFS whether the session management procedures for MC and BC are combined depends on further discussion on the details whether the information included can be combined case by case.**   **Broadcast Session management**  Establish the shared NG-U tunnel for broadcast session, FFS on the procedures, e.g., Broadcast Session Setup Request/Response. |

**The Text Proposal to TS 38.410 BL CR is provided in section 3.**

# 2. Reference

1. R3-215138 Consideration on Multicast Session Management, Huawei, CBN, Lenovo, Motorola Mobility, Qualcomm Incorporated, China Unicom, China Telecom

# 3. Text Proposal to BL CR of TS 38.410

***-----------------Start of the Changes-------------------***

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 38.411: "NG-RAN; NG layer 1".

[3] 3GPP TS 38.412: "NG-RAN; NG signalling transport".

[4] 3GPP TS 38.413: "NG-RAN; NG Application Protocol (NGAP) ".

[5] 3GPP TS 38.414: "NG-RAN; NG data transport".

[6] 3GPP TS 23.502: "Procedures for the 5G system".

[7] 3GPP TS 38.300: "NR; Overall Description; Stage 2".

[8] 3GPP TS 23.501: "System Architecture for the 5G system".

[9] 3GPP TS 38.415: "PDU Session User Plane Protocol".

[10] 3GPP TS 38.455: "NR Positioning Protocol A (NRPPa)".

[11] 3GPP TS 36.300: "E-UTRAN); Overall description; Stage 2".

[xx] 3GPP TS 23.247: “Architectural enhancements for 5G multicast-broadcast services; Stage 2”

***-----------------Start of the Next Change-------------------***

# 5 Functions of the NG interface

***//skip unchanged part***

5.xx NR MBS Session Management function

The MBS Session Management function is responsible for establishing, modifying and releasing the involved NR MBS sessions NG-RAN resources for user data transport once an MBS context is available in the NG-RAN node.

NGAP supports transparent relaying of MBS Session related information by the AMF as described in TS 23.247 [xx].5.yy Multicast Group Paging Function

The Multicast group paging function supports the sending of multicast group paging requests to the NG-RAN nodes in order to group-page UEs that have joined the Multicast MBS Session

# 6 Signalling procedures of the NG interface

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6.xx NR MBS Session Management Procedures

The following list of MBS Session management procedures are used to establish, release, or modify NG-RAN resources for a NR MBS session:

- Broadcast Session Resource Setup;

- Broadcast Session Resource Release;

- Multicast Session Update;

- Multicast Session Activation;

- Multicast Session Deactivation;

- Multicast Distribution Setup;

- Multicast Distribution Release;

Editor’s Note 1: FFS whether a single procedure or separate procedures should be used for Multicast Session Activation/Update/Deactivation.

Editor’s Note 2: FFS whether one or two procedures will be used for Multicast Distribution Setup and Multicast Distribution Release.

Editor’s Note 3: FFS whether the Multicast Distribution Setup/Release can be reused for Broadcast.

Editor’s Note 4: FFS on combination of some Multicast Session Management and Broadcast Session Management procedures.

6.yy Multicast Group Paging Procedures

The following Multicast Group Paging procedure is used to send multicast group paging requests to the NG-RAN nodes:

- Multicast Group Paging.

***-----------------End of the Changes-------------------***