**3GPP TSG-CT WG4 Meeting #110-eC4-223303**

**E-Meeting, 12th – 20th May 2022**

**Title: LS on Support of Broadcast and Multicast MBS sessions with AMF Set**

**Response to:**

**Release:** **Rel-17**

Work Item: 5MBS

Source: CT4

To: RAN3

cc: SA2

Contact Person: Frank Yong Yang

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**Send any reply LS to: 3GPP Liaisons Coordinator,** **mailto:3GPPLiaison@etsi.org**

**Attachment: None**

**1. Overall Description:**

CT4 is specifying restoration procedures for Broadcast and Multicast MBS Sessions upon the occurrence of an AMF failure without restart when this AMF is deployed in an AMF set.

1) For Broadcast MBS sessions, CT4 assumes that when AMFs are deployed in an AMF set or with a backup AMF as specified in clause 5.21 of 3GPP TS 23.501, NG-RAN nodes (i.e. gNBs) shall be able to accept any subsequent NGAP Broadcast Session Modification or Release Request message for an existing Broadcast MBS Session via another AMF from the AMF set (or from the backup AMF) other than the AMF which sent the Broadcast Session Setup Request message for the same Broadcast MBS Session.

Once having received and accepted a Broadcast Session Modification Request from an alternative AMF in the set or from the backup AMF, CT4 also assumes that the NG-RAN node shall then contact this alternative AMF if reachable when the NG-RAN node needs to send NG-RAN initiated signalling, e.g. Broadcast Session Release Require message.

**Question 1:** CT4 would like RAN3 to confirm if CT4's assumptions are correct.

2) For Multicast MBS sessions, CT4 also assumes that when AMFs are deployed in an AMF set or with a backup AMF , the NG-RAN nodes shall be able to accept any subsequent NGAP Multicast Session Activation, Update or Deactivation Request message for a Multicast MBS Session via another AMF from the AMF set (or from the backup AMF) other than the AMF towards which the NG-RAN node sent the Distribution Setup Request message for the same Multicast MBS Session.

**Question 2:** CT4 would like RAN3 to confirm if CT4's assumption is correct.

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3) CT4 also discussed possible solutions for a local NG-C link failure between a NG-RAN and a AMF, when:

- multiple TNL associations (including multi-homing for SCTP) are deployed between the NG-RAN node and the AMF as specified in clause 5.21 of 3GPP TS 23.501, and

- the AMF is still operational and it is deployed in an AMF set or with a backup AMF as specified in 5.21 of 3GPP TS 23.501,

so in this case, the local NG-C failure would fail all the TNL associations between one NG-RAN node and the said AMF, while the NG-RAN node would still be able to communicate with other AMFs in the same AMF set or with the backup AMF.

CT4 did not reach consensus on whether the above link failure scenario is a common failure scenario which should be addressed by new restoration procedures defined in 3GPP CT4, or it is exceptional since the resiliency provided by the multiple TNL associations suffices to address such path failure between an NG-RAN node and an AMF.

**Question 3:** CT4 would like to get feedback from RAN3 on whether such a local link failure scenario is a common failure scenario that should be addressed by new restoration procedures defined by 3GPP CT4.

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**2. Actions:**

**To RAN3:**

**ACTION:** CT4 kindly requests RAN3 to provide responses to above questions.

# 3. Dates of next CT4 meetings

The upcoming CT4 meetings can be found in the [CT4 Meetings calendar](https://www.3gpp.org/dynareport/Meetings-C4.htm?Itemid=294)