**3GPP TSG-CT WG4 Meeting #99eC4-204340**

**E-Meeting, 18th – 28th August 2020**

Title: LS on End marker in NG-RAN initiated QoS Flow mobility

Response to:

Release: Rel-15 onwards

Work Item: 5GS Phase 1

Source: CT4

To: RAN3

Cc:

**Contact Person:**

Name: Caixia Qi

Tel. Number:

E-mail Address: Caixia.qi@huawei.com

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

Attachments:

**1. Overall Description:**

CT4 discussed the following several alternatives to send the End Marker messages on the old tunnel in a NG-RAN initiated QoS Flow mobility procedure, as specified in step 6 of clause 4.14.1 of 3GPP TS 23.502 as below:

"*In order to assist the reordering function in the Master RAN node and/or Secondary RAN node, for each affected N3 tunnel the UPF sends one or more "end marker" packets on the old tunnel immediately after switching the tunnel for the QFI. The UPF starts sending downlink packets to the Target NG-RAN.*"

1. UPF sends one or more End Marker messages without any QFI included;
2. UPF sends one or more End Marker messages including one QFI of those QoS flows be switched to the new N3 tunnel;
3. UPF sends one or more End marker messages including the QFI for each of those QoS flows be switched to the new N3 tunnel;

After receiving the End Marker message, NG-RAN considers the user plane packets will be received in the new N3 tunnel, it is not clear how NG-RAN handle the subsequent user plane packets pertaining to the QoS flows be switched to the new N3 tunnel or the QoS flows kept in the old N3 tunnel.

CT4 kindly requests RAN3 to consider the above issue and clarify their specification.

**2. Actions:**

**To RAN3 group.**

**ACTION:** CT4 kindly requests RAN3 to take the information above into account and provide feedback.

**3. Date of Next CT4 Meetings:**

3GPP TSG CT4#101e 11/2020 E-Meeting