**3GPP TSG-RAN WG3 Meeting #111-e R3-211106**

**E-meeting, 25 Jan – 5 Feb 2021**

**Title: [draft]** LS on the TNL address of the AMF received from the source 5G-AN node during Xn handover

**Response to:**

**Release:** Rel-15

**Work Item:** NR\_NewRAT-Core

**Source:** Nokia [will be RAN3]

**To:** SA2

**Cc:** -

**Contact Person:**

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1. **Overall Description:**

RAN3 discovered an inconsistency between the RAN3 specification and SA2 specification, regarding the TNL address of the AMF received from the source 5G-AN node during Xn handover. TS23.502 Section 4.2.7.2.2 states:

During an Xn-based inter NG-RAN node handover, the following applies

- If an NGAP UE-TNLA-binding exists for a UE, the source 5G-AN node supplies the target 5G-AN node with the corresponding TNL address of the AMF for the currently used TNL association.

- If the target 5G-AN receives the TNL address of the AMF from the source 5G-AN node, the target 5G-AN node establishes a TNL association towards the TNL address received from the source 5G-AN node, creates an NGAP UE-TNLA-binding to this TNL association and sends the N2 Path Switch Request via this TNL association.

- If the target 5G-AN does not receive the TNL address of the AMF from the source 5G-AN node, the 5G-AN node creates an NGAP UE-TNLA-binding for the UE by selecting a TNL association from the available TNL associations permitted for the initial N2 message for the AMF identified by the UE's GUAMI.

- The AMF may decide to use the TNL association selected by the 5G-AN or the AMF may modify the NGAP UE-TNLA-binding by triangular redirection.

The case in the 3rd sub-bullet does not exist, the source 5G-AN node always provides an TNL address of the AMF. TS 38.423 specifies (in a Note in 9.1.1.1 for the *Signalling TNL association address at source NG-C side* IE that “*If no UE TNLA binding exists at the source NG-RAN node, the source NG-RAN node indicates the TNL association address it would have selected if it would have had to create a UE TNLA binding.*”. source.

Regarding to the 2nd sub-bullet that the target 5G-AN node establishes a TNL association towards the TNL address in case it does not exist, RAN3 is unclear about the scenario.

* If it is operator’s intention to not use a specific TNL address of the AMF for target 5G-AN node (thus the TNL association does not exist), there may be no need to establish the TNL association during the Xn handover.
* Otherwise, target 5G-AN should have a TNL association towards the TNL address.

RAN3 would like to ask SA2 to align with RAN3 specification and update TS 23.502 accordingly.

**2. Actions:**

**To SA2:**

**ACTION:** RAN3 respectfully ask SA2 to take the above into account and update the related specification.

**3. Date of Next TSG-RAN3 Meetings:**

TSG-RAN3 Meeting #112-e 17th – 28th May 2021

TSG-RAN3 Meeting #113-e 23th – 27th Aug 2021