3GPP TSG-SA WG4 Meeting #129-e S4-241776

**Online, 19 – 23 August 2024**

Title: LS Reply on FS\_XRM\_Ph2

Response to: LS (S2-2407351/S4-241422) from SA2

Release: Release 19

Work Item: FS\_XRM Ph2, FS\_5G\_RTP\_Ph2

Source: SA WG4

To: SA WG2, RAN WG2

Cc: RAN WG3

**Contact Person:**

Name: Serhan Gül

E-mail Address: serhan.guel AT nokia DOT com

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

Attachments: None

**1. Overall Description:**

SA4 thanks SA2 for the LS on FS\_XRM Ph2 (S2-2407351/S4-241422) and would like to provide the feedback as following:

* **Question1 [for SA4, RAN2 and RAN3]:**
  + SA2 discusses indicating periodicity via in-band signaling (i.e. in GTP-U) for dynamic changes of the periodicity and kindly asks RAN2 and RAN3 to feedback on that approach.
  + To SA4: is it possible for application server to provide the periodicity to the PSA UPF in RTP header extension?.

**Reply 1:**

Yes, including periodicity information in an RTP header extension may be possible in some cases (but not always), i.e., provided that the sender implementation supports it and the traffic is periodic in nature.

However, some experts in SA4 believe that alternative mechanisms may be more efficient than RTP header extension if the dynamic changes of the periodicity are infrequent, e.g., the periodicity remains constant for an extended period of time and changes to another constant value for another extended period of time.

SA4 is currently studying signaling of dynamic traffic characteristics which has not considered signaling periodicity using an RTP header extension so far. In case such RTP header extension is needed by SA2, SA4 would like to be informed about the specific requirements from SA2.

* **Question2 [for SA4 and RAN2]:** There is some discussion about time to next burst.
  + To SA4: is it possible that the application server provides the time to next burst (i.e. the time interval between the current burst and the next burst) in the 1st packet of the burst via N6?

**Reply 2:** Yes, it may be possible depending on the sender implementation, connectivity between the sender and 5G System and predictability of the traffic source. If the N6 link is covered by transport level agreements and N6 jitter and bandwidth variation is known or can be predicted, senders can estimate how much time it will take to send all packets in a data burst and determine the start time of the next burst within an implementation-dependent error margin. Therefore, application servers may be able to provide an estimate of TTNB in the first packet of the burst for such cases and conditions.

SA4 would like to note that TTNB estimation is only applicable for bursty traffic, and the same UE may receive other traffic which may be continuous. A UE may also receive multiple traffic flows originating from different traffic sources with respective TTNBs and the resulting data burst traffic pattern seen at the RAN may not be well represented by any of the TTNBs.

SA4 is studying the topic in Key Issue #12: “Enhancements of Data Burst Marking” of FS\_5G\_RTP\_Ph2 as documented in clause 5.12 of draft TR 26.822.

**2. Actions:**

**To SA2:**

**ACTION:** SA4 kindly asks SA2 to take the above into account and provide feedback if any.

**To RAN2:**

**ACTION:** SA4 kindly asks RAN2 whether TTNB is still useful if received in the last packet of the burst and provide feedback on the replies above if any.

**3. Date of Next SA4 Meetings:**

SA4#130 18th Nov – 22nd Nov 2024 Orlando, FL, USA

SA4#131 17th Feb – 21st Feb 2025 Geneva, Switzerland