**3GPP TSG-CT WG3 Meeting #116eC3-213457**

**E-Meeting, 19th – 28th May 2021**

**Title: LS on Clarifications to the operation of network slice status reporting**

**Release: Rel-17**

**Work Item: eNS\_Ph2**

**Source:** **CT3**

**To:** **SA2**

**Cc: CT4**

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**Attachments:**

# Overall description

CT3 has started stage 3 normative work on the eNS\_Ph2 WI based on the stage 2 requirements developed by SA2. Regarding the support of network slice reporting of the current number of registered UEs / the current number of registered PDU sessions for a network slice, CT3 has identified the following ambiguities:

**1)** Regarding the subscription to these network status reporting events:

In TS 23.502, clause 4.15.3.2.x, step1 (CR S2-2103479):

*1. To subscribe or unsubscribe for the number of UEs or the number of PDU Sessions per network slice notification with the NSACF, the AF sends Nnef\_EventExposure\_Subscribe/Unsubscribe Request (Event ID, Event Filter, Event Reporting information) message to the NEF. The Event ID parameter defines the subscribed event ID, i.e. Number of Registered UEs or Number of Established PDU Sessions. The Event Filter parameter defines the S-NSSAI for which reporting is required. The Event Reporting information parameter defines the mode of reporting, i.e. threshold based reporting with included a threshold value or periodic reporting with included periodicity time interval.*

This leads to the interpretation that an AF can either subscribe to the "Number of Registered UEs" event or the "Number of Established PDU Sessions" event as part of a single Nnef\_EventExposure\_Subscribe Request. In other word, an AF cannot subscribe to both events at the same time as part of a single Nnef\_EventExposure\_Subscribe Request.

However, also in TS 23.502, clause 5.2.21.x (also CR S2-2103479), the description of the service operations of the Nnsacf\_SliceEventExposure clearly indicate that the NEF can also subscribe to both events at the same time at the NSACF. Hereinafter an extract from the description of the Nnsacf\_SliceEventExposure\_Subscribe service operation, the exact same formulation is used in all the other service operations:

***Inputs, Required:*** *Event ID, Event Filter, Event Reporting information*

*The Event ID parameter defines whether to notify the number of UEs registered with a network slice or the number of PDU Sessions established on a network slice or both.*

*The Event Filter parameter is the S-NSSAI for which the current number of UEs registered for a network slice or the current number of PDU Sessions established on a network slice or both are to be notified to the consumer NF.*

*The Event Reporting information parameter defines whether the notification is threshold based (e.g. the notification is triggered when the current number of UEs or PDU Sessions with a network slice reaches a defined threshold value) or the notification is periodical (e.g. the notification is triggered at expiry of a periodic timer).*

This leads to the interpretation that an AF can similarly subscribe to both events at the same time, i.e. as part of a single Nnef\_EventExposure\_Subscribe Request.

Therefore, CT3 would like to kindly ask SA2 to study and answer the following question:

**Question 1**: Can an AF request to subscribe to network slice reporting for both the "Number of Registered UEs" event and the "Number of Established PDU Sessions" event as part of a single Nnef\_EventExposure\_Subscribe Request? If the answer is yes, then please clarify the associated notifications handling?

**2)** Regarding network slice reporting when threshold based reporting is used, CT3 would like to kindly request the following clarifications:

**Question 2**: How does the associated notification mechanism work? In other words, is a notification triggered only the very first time that the threshold is reached or each time the threshold is reached? Is a notification triggered also when the "Number of Registered UEs" / "Number of Established PDU Sessions" goes below the subscribed threshold?

**Question 3**: If applicable and based on the answer to Question 2 above, can you please also clarify how the potential fluctuations (i.e. crossing the threshold several times in a short timeframe) should be handled?

# 2 Actions

**To SA2**

**ACTION:** CT3 kindly asks SA2 to answer the above questions and modify the SA2 specifications accordingly, where appropriate and if necessary.

# 3 Dates of next TSG CT WG 3 meetings

3GPP TSG CT3#117e 18th - 27th August 2021 E-Meeting

3GPP TSG CT3#118e 11th - 15th October 2021 E-Meeting