3GPP TSG SA WG 4 Meeting 116-e TDoc S4-211586

Electronic, 10-19 November 2021 revision of S4-211580

**Title: Reply LS to SA2 on UE Data Collection and Reporting**

**Response to: S4-211464 (S2-2107817)**

**Release: Rel-17**

**Work Item: EVEX**

**Source:** **3GPP SA4**

**To:** **3GPP SA2**

**Cc: 3GPP CT3**

**Contact person: Charles Lo**

**c dot lo at qti dot qualcomm dot com**

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

**Attachments:** Draft versions of TS 23.501 v0.2.0 and TS 26.532 v0.2.0

# 1 Overall description

SA4 thanks SA2 for the reply LS on UE data collection and reporting, especially for the replies to SA4’s questions in our previous LS to SA2. We wish to provide the following feedback, as shown in blue font, to SA2 responses to some of the original SA4 questions.

2. That SA2 is content for SA4 to proceed with stage 2 definition of the proposed Ndcaf service.

**[SA2 Reply]:** Yes. Please also consider SA2 feedback regarding point 1 (as above) and points 3, 4, 5 and 6 (as below).

**[SA4 feedback]:** Please refer to the attached TS 26.531 and TS 26.532 which represent the latest draft versions of the EVEX-related specifications at the close of SA4#116-e as of 19 Nov, 2021. Among other contents, these documents reflect the current SA4 ideas on the stage 2 and stage 3 aspects of the Ndcaf service.

3. That it is acceptable to expose certain events to system actors other than the NWDAF via the event exposure service, including actors deployed outside the trusted domain.

**[SA2 Reply]:** SA2 assumes point 3 is related to the development of newly proposed reference point, R6 (and possibly reference point R4). Please note this is beyond the scope of SA2 request and developments in Rel-17 eNA. This needs to be discussed at SA4 level based on its own stage 1, stage 2 merit.

5. That it is acceptable for a Data Collection AF instance deployed inside the trusted domain to expose its Ndcaf service to system actors deployed outside the trusted domain via the NEF (Collaborations B and C in Annex A of the attached draft TS 23.531), and that SA2 will be able to make the necessary additions to TS 23.501, TS 23.502 and TS 23.288 in the Release 17 timeframe to accommodate such deployments.

**[SA2 Reply]**. SA2 assumes that system actors deployed outside the trusted domain refers to External AFs. It is acceptable for the mentioned deployment. However, for the interaction between Data collection AF and the External AFs, SA2 relies on SA4 progress. Whether it is necessary to update SA2 specs, requires further evaluation depending on SA4 progress/outputs.

6. That it is acceptable for a Data Collection AF instance deployed inside the trusted domain to expose events to actors deployed outside the trusted domain via the NEF, using the Nnef\_EventExposure service.

**[SA2 Reply]:** Yes, it is acceptable to use the Nnef\_EventExposure service with the event type as defined in clause 5.2.6.2, TS 23.502 or extended new events types based on SA4 requirement. Extended new event types are beyond the scope of SA2 in Rel-17 eNA and should be coordinated with 3GPP CT3.

**[SA4 feedback]:** The above questions/replies are related. They pertain to AF-centric event exposure, UE data collection and reporting configuration, and data reporting services-specific interactions between the Data Collection AF and other system actors, for which the logical points of the associated interactions are located in different trust domains and therefore require NEF mediation. CT3 has sent LS to SA4 (in C3-215316, cc’d to SA2) on the EVEX Work Item with a related question on the definition of certain new NEF services that will need to be defined at the stage 2 level in support of the EVEX Work Item. In particular, CT3 cites the Nnef\_NFManagement and Nnef\_DataReporting services, and the importance of alignment between SA2 and SA4 on their stage 2 definition. SA4’s reply LS to CT3 affirms the necessity of alignment not only of these two services between SA2 and SA4, but also that of an NEF-equivalent version of the Ndcaf\_EventReportingProvisioning service. Therefore, SA4 believes that at a future point, when the stage 2 development by SA4 of these Data Collection AF centric services becomes mature and is presumed agreeable to SA2, SA2’s role in updating its specifications (e.g., TS 23.502 and TS 23.288) will then be necessary to enable the corresponding stage 3 APIs of those services to be specified (likely by CT3). Such stage 2 specification could foreseeably also be accomplished, in the Release 17 timeframe by SA4 on behalf of SA2, as a component of the EVEX Work Item deliverables.

SA4 also wishes to point out that in the SA2 reply to Question 5, SA2 assumes that all those system actors, interacting with the Data Collection AF, are deployed outside the trust domain are External AFs. Please note that those external system actors, as described in Collaboration scenarios B and C of TS 26.531, correspond to the Provisioning AF, Indirect Collection Client, Event Consumer AF and AS. The first three entities belong to the Application Service Provider, and depending on SA2’s definition of ‘External AF’, it’s not clear to SA4 whether the Indirect Collection Client corresponds to an External AF. If it is, then SA2 is accurate in its assessment.

8. That it is acceptable for an NWDAF instance deployed inside the trusted domain to invoke the Nnef\_EventExposure APIs on an externally deployed Data Collection AF instance via the NEF across the trust boundary.

**[SA2 Reply]:** Yes, it is acceptable to use the Nnef\_EventExposure service with the event type as defined in clause 5.2.6.2, TS 23.502 or extended new events types based on SA4 requirement. Extended new event types are beyond the scope of SA2 in Rel-17 eNA and should be coordinated with 3GPP CT3.

**[SA4 feedback]:** SA4 understands the SA2 response to indicate that SA2 foresees in principle no restriction on defining stage 2 and stage 3 specifications of new/extended event types to be exposed to consuming entities, by a Data Collection AF in Release 17. In doing so, however, coordination will be necessary between SA4 and CT3 to define the stage 3 API of such AF Event Exposure service, which may include an NEF-equivalent Nnef\_EventExposure service API. In SA4’s reply LS to CT3 in S4-211xxx (with cc’ to SA2), it is mentioned that SA4 has ongoing discussion with SA2 on additional candidate event types for subscription by NWDAF from the Data Collection AF, such as those defined in 5G Media Streaming (in TS 26.501 and TS 26.512). As mentioned in the LS to SA4 in S2-2107013 (cc’d to CT3), SA2 indicates its intention to further evaluate the merit of those events for exposure to NWDAF for specific analytic features, likely in response to related work progress in SA4. Therefore, should SA2 decide to adopt one or more of those new event types for exposure to NWDAF for subsequent data analysis related service offering to other NF consumers, additional Rel-17 work may be necessary on the associated SA2 specifications.

In addition to the above, as SA4 has responded in reply LS to CT3, we think that it may be useful in the near future to hold a trilateral conference call between CT3, SA2 and SA4 to better coordinate on the matters of these recent LS exchanges between SA2, CT3 and SA4. Since all three WGs will hold their e-meetings in mid-November 2021, with subsequent e-meetings in January/February 2022, early-to-mid December timeframe would seem opportune for such discussion.

# 2 Actions

**To SA2**

**ACTION 1:** SA4 asks SA2 to take the above SA4 feedback into account, review the latest draft versions of TS 26.531 and TS 26.532, and kindly inform SA4 whether SA2 has further questions or related comments.

**ACTION 2:** SA4 asks SA2 to respond on your interest and availability to hold a 3-way teleconference among SA2, SA4 and CT3 on event exposure and UE data collection and reporting services and APIs on Thursday, December 9th, with a meeting start time of 6:00 am PST/3 pm CET/10 pm CST and duration of one hour.

# 3 Dates of next TSG SA WG 4 meetings

SA4#117-e 14th – 23rd February 2022 E-Meeting

SA4#118-e 6th – 14th April 2022 E-Meeting