**SA WG2 Meeting #S2-149e(e-meeting) S2-2200819r16**

**14 - 25 February 2022, Electronic Meeting**

**Source: vivo, CATT, China Telecom, China Mobile, Inspur, NTT DOCOMO, Samsung, Huawei, Rakuten Mobile, Lenovo .**

**Title: New KI on enhancement of NWDAF with the benefit from location service**

**Document for: Approval**

**Agenda Item: 9.23**

**Work Item / Release: FS\_eNA\_Ph3** **/ R18**

*Abstract: Propose a key issue* *on the enhancement of NWDAF and what benefit can NWDAF acquire from location service.*

# 1. Introduction

According to the SP-211650, the study on Enablers of Network Automation, the Work Task #4.2 needs to be studied:

*WT#4.2: NWDAF enhancements considering the finer granularity of location information than TA and cell level*

*NOTE: Coordinated activities between the study FS\_eLCS\_PH3 and this study are needed if NWDAF need to get Location information.*

As per the discussion paper, the study of the enhancement of NWDAF with the benefits from location service is required.

# 2. Proposal

This paper proposes to add a new key issue as follows: (all new text).

\* Start of change \*

## 5.X Key Issue X: Enhancement of NWDAF with the benefit from location service

### 5.X.1 Description

The NWDAF can retrieve and collect UE location information and then provide some analytics to NWDAF consumers, e.g. UE mobility analytics, QoS Sustainability Analytics as defined in TS 23.288. However, the UE location information that NWDAF can obtain is only TA/cell granularity in R17.

The horizontal accuracy and the vertical accuracy of the existing location service can reach a granularity level finer than TA and cell level. Meanwhile, some extra information (e.g. speed, heading) could possibly also be provided by the location service. But whether such LCS related information is beneficial for the NWDAF is not clear, and it also needs to be studied how the NWDAF can obtain such LCS related information. Therefore, a KI to study whether and how the NWDAF can provide additional benefits from location service is required.

In this key issue, the following aspects will be studied:

* Identify use cases and corresponding existing or new analytics ID(s) where the analytics require location information with finer granularity than TA/cell level, and how to enhance those analytics ID(s).
* Identify how an NWDAF determines that location information with finer granularity than cell/TA level is required in output analytics?
* Identify what input data needs to be collected to deliver analytics with fine granularity location information.
* Identify how NWDAF acquires the finer granularity location information. Whether and how the functionality and services of NWDAF or other NFs need to be enhanced.

NOTE: Coordinated activities with the eLCS\_ph3 study are needed.

NOTE: Some examples of UE location different than cell/TA level are described in clause 4.2 and 4.3, TS 22.071 [X]

\* Next change \*

# References

[X] 3GPP TS 22.071: " Location Services (LCS)".

\* End of change \*