**3GPP TSG-SA5 Meeting #144e** ***S5-224272rev1***

**27 June to 1 July 2022, E-meeting**

**Source: China Mobile**

**Title: Add potential solution related with number of subscriptions for data collection exposure capability**

**Document for: Approval**

**Agenda Item: 6.7.6.2**

# 1 Decision/action requested

***The group is asked to discuss and agree on the proposal.***

# 2 References

[1] 3GPP TR 28.864-020: " Study on Enhancement of the management aspects related to NWDAF".

[2] 3GPP TS 23.288: "Architecture enhancements for 5G System (5GS) to support network data analytics services".

# 3 Rationale

In [1], the key issue #5 of performance management for Data Collection Exposed by NWDAF is proposed. This pCR is to provide the potential solution related with the number of subscriptions for Data Collection Exposed by NWDAF.

# 4 Detailed proposal

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| **Start of 1st Change** |

## 4.5        Key Issue #5: Performance Measurement on Data Collection Exposed by NWDAF

### 4.5.1      Description

Data collection play an important role for the NWDAF providing analytic services and model training services.

In the Rel-17, the enhanced data collection feature is introduced, with which the data collection may be performed via Nnwdaf DataManagement services provided by NWDAF.

The Nnwdaf\_DataManagement services enable the consumer to subscribe/unsubscribe, be notified about data exposed by NWDAF, or fetch the subscribed data. The consumer of the Nnwdaf\_DataManagement services can be the other NWDAF instances.

The operator may be interested in the how often the Nnwdaf\_DataManagement services are requested or how many data are provided via Nnwdaf\_DataManagement services.

On one hand, the service provider NWDAF will prepare the data before they are provided to consumer, and since the preparation includes both collection and processing of the data from the other data sources and historical data having been collected by NWDAF, this measurement will indicate how busy the NWDAF is on data collection related services. Sometime, this measurement will lead to adjusting the network resource allocated to the service provider NWDAF instance to support data exchange with other consumers. And on some other cases, this measurement may indicate that deploying a dedicated DCCF is necessary.

On the other hand, as the enhanced data collection feature is introduced for Rel-17 NWDAF to increases data collection efficiency, this measurement will be a complimentary for the performance measurement of the NWDAFs which does not support DataManagement services. This measurement will also provide information on how many data collection is performed with the more effective manner, which can contribute the potential reduction of the CAPEX.

In this key issue, the potential solutions are provided on the performance measurement about the Nnwdaf\_DataManagement services provided by NWDAF.

### 4.5.2 Potential solutions

#### 4.5.2.i Potential solution #<i>: number of subscriptions for data collection exposure capability

##### 4.5.2.i.1 Introduction

NWDAFs may provide data collection exposure capability when DCCF, MFAF are not present in the network. The number of subscriptions received by NWDAF for the services can be a potential the performance metric for data collection exposure capability.

##### 4.5.2.i.2 Description

This proposed performance measurements of the NWDAF are defined as the number of the Nnwdaf\_DataManagement\_Subscribe received by NWDAF.

Data management services at NWDAFs are invoked for NWDAF service consumer to retrieve runtime and historical data.The number of subscriptions received by NWDAF from NWDAF service consumer for data collection exposure can be measured as follows:

- When the NWDAF receives the Nnwdaf\_DataManagement\_Subscribe service operation from NWDAF service consumer (See TS 23.288 [2]), each accepted subscription is added to the relevant counter.

- When the NWDAF receives the Nnwdaf\_DataManagement\_Subscribe service operation from NWDAF service consumer (See TS 23.288 [2]), each rejected subscription is added to the relevant counter.

Editor's Note: This clause provides details of the potential solution and any assumptions made.

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| **End of Modified Sections** |