**3GPP TSG SA Meeting #101 SP-23xxxx**

**Bangalore, India, 11-15 September 2023**

Title: [Draft] AI/ML enhancements

Response to: -

Release: Release 19

Work Item: N/A

Source: SA

To: TSG RAN, RAN1, RAN2, RAN3

Cc: SA2

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Attachments: None

**1. Overall Description:**

TSG SA is discussing in the context of the draft (not yet agreed) rel.19 "SID on Core Network Enhanced Support for Artificial Intelligence (AI)/Machine Learning (ML)" the following WT:

*WT#1: AI/ML cross-domain coordination aspects*

*Study enhancements to support AI enabled RAN based on conclusions of the RAN study. The WT will discuss whether and how to support the cross domain (i.e. UE, RAN, 5GC, OAM and AF) collaborative AI/ML mechanisms for the aspects described by the work tasks below.*

*- WT1.1 –Study whether and how to support UE data collection to meet requirements for RAN AI support for air interface operation (for RAN). This includes identifying what benefit can be achieved from enhanced UE data collection for 5GC, and the potential impacts on the 5G framework, including potential enhancements to policy control. The WT will also discuss the possible data leakage from the operator's domain which should be avoided.*

*- WT1.2 –Study whether (and how) to support model transfer/delivery to the UE according to RAN1/RAN2 considerations, including potential enhancements to policy control. Whether and what entities or functions transfer the AI/ML model or information to the UE will be studied as part of the work. This WT will also discuss the possible data leakage from the operator's domain which should be avoided.*

***-*** *WT1.3: Study whether and how to support the alignment of model identification and model management between SA2 and RAN. Work will be based on the possible requirements defined by RAN1 and RAN2.*

***-*** *WT1.4: Study whether and how to support interaction/coordination with RAN3 to support the AI enabled NG-RAN framework (i.e. AI/ML for NG-RAN in Rel-18). Work will be based on possible requirements from RAN3.*

***-*** *WT1.5: Study whether and how to consider enhancements to LCS to support AI/ML based Positioning.*

The WT contains the following NOTE

"*Whether SA2 will study WT1 and the content of WT1 will depend on and follow RAN study and conclusions. WT1 and associated TUs will be revised to align to RAN study conclusions, when RAN reaches such conclusions*."

TSG SA is asking TSG RAN and RAN WGs (in TO) to provide any feedback they think is useful in order to allow SA2 and TSG SA to progress this work in release 19.

**2. Actions:**

**To RAN1, RAN2, RAN3, TSG RAN:**

**ACTION:** TSG SA kindly asks RAN1, RAN2, RAN3 and TSG RAN provide any information may think is useful.

**3. Date of Next TSG SA Meetings:**

TSG-SA Meeting #102 11-15 December 2023 Edinburgh, UK

TSG-SA Meeting #103 19-22 March 2024 EU