**3GPP TSG-SA WG4 Meeting #128S4-241025\_r02**

**Jeju, South Korea, 20 May - 24 April 2024**

**Source: Samsung Electronics Co., Ltd., Tencent**

**Title: [FS\_AI4Media] pCR on related work**

**Agenda item: 9.6**

**Document for: Agreement**

**1. Introduction**

The contribution provides text on related work in 3GPP.

**2. Discussion**

In Rel-18:

* SA1 completed both their study item on requirements for AI/ML model transfer in 5GS (FS\_AMMT), and also a following work item (AIML\_MT)
* SA2 AI/ML related activities included a Study on 5G System Support for AI/ML-based Services (FS\_AIMLsys), and subsequently normative stage 2 work for AIML in the AIMLsys WI which was completed in June 2023.

**3. Proposal**

It is proposed to agree the following changes to 3GPP TR 26.927 v0.7.0.

\* \* \* First Change \* \* \* \*

## 4.3 Related work

### 4.3.1 Traffic characteristics and performance requirements for AI/ML model transfer in 5GS

The 3GPP TR 22.874 [xx] captures the study of the use cases and the potential performance requirements for 5G system support of Artificial Intelligence (AI)/Machine Learning (ML) model distribution and transfer (download, upload, updates, etc.), and identifies traffic characteristics of AI/ML model distribution, transfer, and training for various applications, e.g. video/speech recognition, robot control, automotive, other verticals.

The media related use cases described in TR 22.874 are used as a basis for those listed and described in clause 4.2 of this TR.

[To be converted into spec language: A subsequent work item (AIML\_MT) has also been completed in SA1 for Rel-18 (multiple CRs on TS 22.261), reflecting new service requirements and KPIs for AI/ML model transfer in 5GS.]

### 4.3.2 5G System Support for AI/ML-based Services

The 3GPP TR 23.700-80 documents, based on requirements as specified in clauses 6.40 and 7.10 of TS 22.261 [2], 5GS assistance to support Artificial Intelligence (AI) / Machine Learning (ML) model distribution, transfer, training for various applications, e.g. video/speech recognition, robot control, automotive, etc.

Assistance to AI/ML operations in the application layer is defined in clause 5.46 of TS 23.501, with specific improvements also impacting TR 23.502, TR 23.503 and TR 23.288, related to:

* Subscriptions, in particular NEF monitoring events, QoS monitoring and network data analytics.
* Member UE selection assistance functionality, hosted by the NEF to assist the AF to select member UEs that can be used in AI/ML based applications (e.g. Federated Learning).
* Other enhancements related to QoS and parameter provisioning related to expected UE behaviour.

\* \* \* End of Changes \* \* \* \*