**SA WG2 Meeting #170 S2-2506287**

**25 – 29 Aug, 2025, Goteborg , SE**

**Source: T-Mobile USA**

**Title: Architectural Requirements**

**Document for: Agreement**

**Agenda Item: 20.2.1**

**Work Item / Release: FS\_Sensing\_ARC/Rel-20**

*Abstract of the contribution: This contribution proposes some architectural assumptions/requirements for Sensing.*

1. Discussion

The following p-CR adds a few relevant architectural requirements that are misto ensure the solutions address these aspects.

2. Proposal

It is proposed to update the TR as follows

\* \* \* Start of change \* \* \* \*

## 4.2 Architectural Requirements

- The Sensing Service operations shall not interfere with delivering existing QoS targets and SLAs for communication services.

- The Sensing Service shall be capable of exposure of the sensing results with low latency to a Sensing Service consumer if required by the consumer for a usage scenario.

- The core network aspects of Sensing architecture need to be agnostic to 3GPP radio access technology (RAT) supporting sensing.

- Sensing architecture needs to support environment and motion monitoring, object detection and tracking as defined in TS 22.137 [2].

- The existing Core Network architecture specified in TS 23.501 [3] needs to be used as a starting point for this study.

Sensing ServiceEditor's note: The scope of the sensing study will be further aligned with TSG RAN at TSGs #108, and therefore, the architecture requirements will be revisited once the final scope is determined.

- Sensing needs to support reporting of one time, periodic or triggered events.

- Sensing architecture should allow for caching and/or storage and/or retrieval of sensing data for use cases that require this functionality

- Sensing architecture needs to support differentiation of sensing data in 5GC from other user plane traffic, for accounting / charging purposes

- Sensing architecture needs to support privacy and confidentiality.

- Potential privacy requirements if identified during the study will be considered for the study of the sensing architecture.

NOTE: Privacy protection and other security aspects will be coordinated with SA WG3, and the related impact to architecture enhancement will be based on SA WG3 conclusion.

\* \* \* End of change \* \* \* \*