**SA WG2 Meeting #160-Ad Hoc-e S2-2400170R01**

**E-meeting, January 22 – 29, 2024 (revision of S2-24xxxxx)**

**Source: LG Electronics, Ericsson**

**Title: New KI: KI for WT#1**

**Document for: Approval**

**Agenda Item: 19.10**

**Work Item / Release: FS\_UAS\_Ph3 / Rel-19**

*Abstract of the contribution: This paper proposes a new Key Issue for WT#1 of FS\_UAS\_Ph3.*

# Discussion

FS\_UAS\_Ph3 SID (SP-231801) includes the following objective:

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| 4 Objective The aim of this study work is to investigate and identify potential architecture and system level enhancements to support additional scenarios and requirements for UAV (Uncrewed Aerial Vehicle) and UAM (Urban Air Mobility).  Specifically, the objectives include:  - **WT#1:** Based on SA1 requirements and input from aviation fora, study whether and how to enhance NEF services to support service exposure and interactions between MNOs and UTM functions for i.e. pre-mission flight planning, in-mission flight monitoring, C2 communication reliability, interfacing with UTM (e.g. supporting the scenario of multiple USS serving the geographical areas corresponding to UAV flight path).  - **WT#2:** Based on SA1 requirements, study whether and how to enable network-assisted/ground-based mechanism for DAA (Detect And Avoid) that leverages information collected and generated in the 5GS, including whether and what new information is needed.  NOTE 1: The solution shall co-exist with and leverage, to the extent possible, Direct DAA solutions considered in Release 18.  NOTE 2: Sensing related information is out of scope of this study.  - **WT#3:** Study how to support no-transmit zones for UAVs. |

This paper proposes a new Key Issue for WT#1 of FS\_UAS\_Ph3.

# Proposal

It is proposed to agree the following changes into TR 23.700-59.

\* \* \* \* Start of 1st Change \* \* \* \*

!!! All New Texts !!!

## 5.x Key Issue #x: Enhancement of NEF services to support service exposure and interactions between MNOs and UTM functions

### 5.X.1 Description

In this key issue, the following aspects are required to be studied:

- whether and how to enhance NEF services to support service exposure and interactions between MNOs and UTM functions for i.e.,

- pre-mission flight planning and in-mission flight monitoring for UAVs.

- C2 communication reliability.

- interfacing of NEF towards USS/UTM, e.g. supporting the scenario of multiple USS serving the geographical areas corresponding to UAV flight path.

NOTE: In the scope of this key issue, UTM can represent any aviation AF that may require interfacing with the MNO for the functions listed above.

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