**3GPP TSG-SA WG6 Meeting #38-e S6-201039**

**e-meeting, 20th – 31st July 2020**

**Source: Tencent**

**Title: Pseudo-CR on Key issue: UAV Aeronautical data communication with USS/UTM**

**Spec: 3GPP TR 23.755**

**Agenda item: 8.5**

**Document for: Approval**

**Contact: shuaiizhao@tencent.com**

**1. Introduction**

It was recognized from the LS sent back from SA1 regarding LS S6-200620 that “Indicated parameters show by which means the UAV and UAV controller shall be identified and inform that list of identification data sent towards the UTM could be quite long”. It is essential for SA6, when defining application enablers, to recognize how UAV data communication might be happening and how data would be formed.

This pCR proposes a key issue to be studied on data communication characteristics in terms of data size, format and whether and how to use existing network protocols for such a data processing.

**2. Reason for Change**

The interactions between the UAV and the USS/UTM need to be listed and analysed so as to define the appropriate application layer methods and interfaces.

**3. Conclusions**

**4. Proposal**

It is proposed to discuss and agree on the addition of a key issue in the TR 23.755. A pCR under S6-200XXX is provided as an informative study guideline.

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

## 5.x Key issue #X: UAV Aeronautical Data communication with USS/UTM

The UAV data specified in TS 22.125 [3] indicated potential aeronautical parameters communicated between UAV and USS/UTM. Those data have specific characters such as size, format, and protocol usage. A UAE server may have a direct connection with the 3GPP network with a NEF interface [8] for direct data communication. Similarly, the Rx interface in SEAL [9] may be utilized to take advantage of the predefined data format and protocols such as using XML and RESTful API. In Either case, when a UAV layer presents a different native support for data communications which may cause interoperability issues.

Hence, it is required to study the following:

- ~~How the application enabler layer handles data communication in terms of client/server architecture design, data processing and transfer protocol.~~

~~-~~ Whether and how UAE need to support data communication in terms of improving interoperability of different data format and protocols.

~~-~~ Whether and how SEAL need to be enhanced to deal with data interoperability.

~~NOTE: How data is authenticated is not in scope of SA6.~~

Notes: The study of application specific protocol is out of scope of 3GPP.