**SA WG2 Meeting #149eS2-220xxx**

**February 14th – 25th, 2022; Elbonia**

**Source: China Mobile**

**Title: Key issue related with WT3.4**

**Document for: Approval**

**Agenda Item:**

**Work Item / Release:** **FS\_XRM / Rel-18**

*Abstract of the contribution:*

# 1 Discussion

In FS\_XRM SID, the WT#3.5 is focus on how to coordinate the UL-DL transmission to meet the RTT requirement.

WT#3.4: Whether and how to support uplink-downlink transmission coordination to meet RTT (Round-Trip Time) latency requirements between UE and N6 termination point at the UPF.

he key issue about WT#3.4 is proposed in this paper.

# 2 Proposal

**It is proposed to update TR 23.700-60 on FS\_XRM as follows**

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\* \* \* \* First change \* \* \* \*(all new texts)

## 5.X Key Issue #X: Support uplink-downlink transmission coordination to meet RTT latency requirement

### 5.X.1 Description

This key issue studies how to support uplink-downlink transmission coordination to meet RTT latency requirement.

Specific scenario requirement is as following:

In TS 22.261 clause 7.6, in order to support VR environments with low motion-to-photon capabilities, the 5G system shall support:

- motion-to-photon latency in the range of 7 ms to 15ms while maintaining the required resolution of up to 8k giving user data rate of up to [1Gbit/s] and

- motion-to-sound latency of [< 20 ms].

NOTE: The motion-to-photon latency is defined as the latency between the physical movement of a user's head and the updated picture in the VR headset. The motion-to-sound latency is the latency between the physical movement of a user's head and updated sound waves from a head mounted speaker reaching their ears.

So the 5GS should support the motion-to-photon RTT latency in the range of 7-15ms, and motion-to-sound latency less than 20ms.

The following aspects should be studied to support uplink-downlink transmission coordination to meet RTT (Round-Trip Time) latency:

* Whether and how to support uplink-downlink transmission coordination to meet RTT (Round-Trip Time) latency requirements between UE and N6 termination point at the UPF.

\* \* \* \*end of change \* \* \* \*