**SA WG2 Meeting #149E S2-2200949r06**

**Feb 14 - 25, 2022, Elbonia**

**Source: Xiaomi, China Mobile, Samsung, China Telecom, InterDigital Inc. ZTE, Huawei, HiSilicon, Nokia, Nokia Shanghai Bell**

**Title: New Key Issue on Coordinate Transmission for Multi-modal Traffic among multiple UEs \_WT1&WT2.1**

**Document for: Approval**

**Agenda Item: 9.19**

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

***Abstract of the contribution:*** *This pCR proposes a new Key Issue to study how to support for interaction between AF and 5GS for QoS policy coordination among multiple UEs.*

# 1 Introduction

In SA2#148, SA2 agreed on the new study on XR (Extended Reality) and media services. One of the objectives is to Study whether and how interaction between AF and 5GS is needed for application synchronization and QoS policy coordination among multiple UEs or between multiple QoS flows per UE.

This paper proposes a new key issue to study what potential enhancements in the 5GS may be needed to support the interaction between AF and 5GS for QoS policy coordination among multiple UEs.

# 2 Proposal

This contribution proposes to include Key Issue x in TR23.700-60 according the following proposal:

Start of changes

## 3.X Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**Multi-modal Data:** Multi-modal Data is defined to describe the input data from different kinds of devices/sensors or the output data to different kinds of destinations (e.g. one or more UEs) required for the same task or application. Multi-modal Data consists of more than one Single-modal Data, and there is strong dependency among each Single-modal Data. Single-modal Data can be seen as one type of data.

NOTE: This definition was taken from TR 22.847 [X].

The 2nd change

# 5 Key Issues

## 5.X Key Issue #X: Support the Application Synchronization and QoS Policy Coordination for Multi-modal Traffic among Multiple UEs

### 5.X.1 Description

One of the requirements documented in TS 22.261 [Y] about tactile and multi-modal communication service, is the following:

The 5G system shall support a means to apply 3rd party provided policy(ies) for flows associated with an application. The policy may contain e.g. the set of UEs and data flows, the expected QoS handling and associated triggering events, other coordination information. The policy can be used by a 3rd party application for coordination of the transmission of multiple UEs’ flows (e.g., haptic, audio and video) of a multi-modal communication session.

This key issue will study how to enable application synchronization and QoS policy coordination for Multi-modal Data flows among multiple UEs.

In particular, this KI will study:- Whether and how to enable for multiple UEs the delivery of related tactile and multi-modal data (e.g., audio, video and haptic data related to a specific time) with an application to the user at a similar time, focusing on the need for policy control enhancements (e.g., QoS policy coordination). - Whether and how to identify the multi-modality flows among multiple UEs that need such coordinated transmission.

- Whether and which coordination handling aspect should be specified.

- Whether and how to interaction between AF and 5GS for application synchronization and QoS policy coordination among multiple UEs.

- Whether and how to support coordination transmission if multiple UEs access through different NG-RAN and select different 5GC NFs.

End of changes