3GPP TSG-WG SA2 Meeting #149E e-meeting *S2-220xxxx*

Elbonia, February 14th – 25th, 2022 (revision of S2-220xxxx)

**Source: CATT**

**Title: New Key Issue: Enhance QoS framework to support media unit granularity**

**Document for: Approval**

**Agenda Item: 9.19**

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

*Abstract: Abstract: Proposes a new key issue to study the enhanced 5GS QoS framework to support media unit granularity, where media units consist of PDUs that have the same QoS requirements for WT#3.2.*

# 1. Introduction

In this release, it is anticipated that 5GS QoS framework will be enhanced to support different QoS handling for different XR media unit. And there are different levels of media units in the same QoS Flow, e.g, slice/tiles in the same I/B/P frame, I/B/P frame, GOP, multi-layer sub-streams and media stream. In order to help the different QoS handling for the different levels of media units, the 5GS QoS framework needs to get QoS requirements and generate the QoS parameters for the media units, identify and mark the packets of the media units. The 5GS QoS framework also needs to consider different relationship for different level media units.

# 2. Text Proposal

It is proposed to capture the following changes vs. TR 23.700-60.

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

## 6.x Key Issue #x - Enhance QoS framework to support media units granularity

### 6.x.1 Description

In this release, it is anticipated that 5GS QoS framework will be enhanced to support different QoS handling for different XR media unit. And there are different levels of media units in the same QoS Flow, e.g, slice/tiles in the same I/B/P frame, I/B/P frame, GOP, multi-layer sub-streams and media stream. In order to help the different QoS handling for the different levels of media units, the 5GS QoS framework needs to get QoS requirements and generate the QoS parameters for the media units, identify and mark the packets of the media units. The 5GS QoS framework also needs to consider different relationship for different level media units.

This key issue proposes to study the enhancement for 5GS QoS framework to support media unit granularity, where media units consist of PDUs that have the same QoS requirements. The key issue includes the following aspects:

- Whether and how to define the different QoS parameters or QoS characteristics for the different media units?

- How the 5GS QoS framework identifies and marks the packets of the same media unit?

- How the 5GS QoS framework identifies and marks the packets from different media units?

- How the 5GS QoS framework gets the different QoS requirements for different media units?

- How the 5GS QoS framework handles the media units with different QoS requirements?

- How the 5GS QoS framework provides the same QoS handling to the packets of the same media units based on the QoS requirement for the media unit?

- How the 5GS QoS framework defines and handles the relationship between the different media units? e.g. the tiles/slices in the same frame, the I/B(if available)/P frames in the same GOP, the multiple layer/view/channel media sub-streams for the same media service.

NOTE 1： The 5GS also includes the UE.

NOTE 2: Coordination with RAN WGs may be needed.