TELECOM INFRA PROJECT

Use Cases & QoS Requirement Sub-Group

Use Cases & QoS Requirement Sub-Group is a subgroup under the Metaverse Ready Network (MRN) Product Group. This document establishes the purpose and scope of the subgroup. Intellectual property and copyright terms used to develop the materials identified in this Sub-Group follow those defined in the MRN PG charter.

Only Participants that execute this Sub-Group Charter will be bound by its terms and be permitted to participate in this Sub-Group and shall be considered "Contributors" in the Sub-Group as defined in the Telecom Infra Project IPR Policy document.

1. SUB-GROUP NAME

Use Cases & QoS Requirements

2. PURPOSE

This sub-group aims to identify and select use cases and establish industry aligned QoS requirements on end-to-end connectivity to deliver targeted QoE

3. SCOPE

In scope

i. For selected use cases (or applications or services), develop use case descriptions including context of use, for different tiered QoE levels (ex: gold, silver, bronze).

   By the term "end-to-end connectivity", it means anything/everything between user devices and application/application server, which could be located in the central or edge cloud of network operators and/or OTT service providers.

ii. Per use case, apply the QoE/QoS measurement framework developed in the other subgroup of the PG and determine
    a. metrics to measure in order to derive QoE
    b. values of QoE metrics to achieve the target QoE levels
    c. key QoS metrics having significant impact on the QoE
    d. quantified QoS requirements (QoS metrics values) to deliver targeted QoE
iii. For the selected use cases, develop functional and architectural requirements on the e2e connectivity to meet the QoS requirements efficiently.

Out of scope

1. QoS Requirements are defined independent of underlying connectivity technology, agnostic to mobile/fixed/wifi access. Separate subgroups is set-up to study the enabling network technology

4. COORDINATION

Coordination with other subgroups within MRN PG and with other TIP PGs, and organizations/SDO's external to TIP is for further study. Examples to consider shall include ITU (International Telecommunication Union), VQEG (Video quality Expert Group) and MEF (Metro Ethernet Forum)

Close monitor the work in Metaverse Standards Forum (MSF), especially in the Exploratory Group "Network requirements and capabilities to support Metaverse applications" (see here for more information, access limited to MSF members)

Note that collaboration with other SDOs and/or industry organization may require a liaison agreement or similar.

5. DELIVERABLES

Deliverable	IPR Treatment	Approval Procedures

Use Case Definition Describing at high level the use case, possibly include the functional and architectural requirements	Document IPR Policy	Versions by consensus of the PG. Final approval by TC.
QoS Requirements Description Describing the quantified QoS requirements on e2e connectivity of the selected use cases.	Document IPR Policy	Versions by consensus of the PG. Final approval by TC.
Test Reports, **Lab Exit Reports**, **Field Trial Exit Reports** Describing how the QOS requirements are derived through an empirical approach.	Document IPR Policy	Initial version may be created in the Project Group, TIP Community Lab, or Field Trials; consensus driven approval in the Project Group, Lab or Trial; final approval by the Technical Committee if the PG chooses to publish
Other technical reports, white papers	Document IPR Policy	Versions by consensus of the PG. Final approval by TC.

6. SUB-GROUP LEADS

Javed Rahman	**T-Mobile USA**	**javed.2.rahman@t-mobile.com**
Gabriele Laghi	**Telecom Italia**	**gabriele.laghi@tisparkle.com**
Manuel Gabrieli	**Meta**	**mgabrieli@meta.com**

7. Revision history

Version	Date	Revision owner	Notes
v.0.1.0	1/18/2023	Xinli Hou (xinlihou@meta.com), Meta	Initial draft for PG co-chair review
v.0.1.1	1/25/2023	Xinli Hou, Meta	Updates after PG co-chair review
v.0.2.0	3/9/2023	Xinli Hou	Updated based on comments of TIP leadership, ready for approval
v.1.0.0	3/22/2023	Megan Skinner	Approved by the TC