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Tencent vision on Release 18 priorities

3GPP SA4 Workshop on Release 18

17th August 2021

Selection of topics around 4 themes

5G Cloud Media Services

- **Motivation**
  - Generalize the Edge/Cloud computing enablers for media delivery, as a reality
  - Hybrid and flexible approach to be considered: Use Cloud-as-a-service approach or compute locally
- **Proposed actions**
  - Work item on enabling the Edge capability in 5GMS

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5G Cloud Media Services- Roadmap

- **Release 17**
  - Stage 2 Edge provisioning and instantiation (EGE)
  - Stage 2 and Stage 3 initial Content Preparation specification (COPE)

  Release 18
  - Complete (PART 3) EDGE and COPE
  - Study the gap issues in low latency delivery using edge computing

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5GMS+

- **Motivation**
  - Completing the existing 5GMSA architecture
  - Very low latency services
    - Delivery
    - Back channels (comments/reactions on the live media)
- **Proposed actions**
  - Study Item on support for very low latency services
    - Identification of media types, protocols, QoS aspects

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5GMS+ roadmap

- **Release 17:** Data Collection and Reporting; Protocols and Formats (EVEX)
  - Uplink streaming (APEX)
- **Release 18:**
  - Complete Uplink Streaming
  - 5GMS extensions based on 5GMS_EXT study
  - Study on very low latency delivery protocols (WebRTC)
    - Use DASH-IF's study in 5G networks
    - 5GMS architecture for conversational-like services

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Extended reality

- **Motivation**
  - Already significant work achieved in SA4 in Studies
  - Need to focus on a few use cases that do not only rely on AR glasses but mixing types of experiences (2D/VR/AR)
  - “AR streaming over 5GMS” should be a simple use case to implement on any device
- **Proposed actions**
  - Work item on AR/MR streaming over 5G

Extended reality - Roadmap

- **Release 17**
  - Complete FS_5GSTAR
- **Release 18**
  - 2D screen-based (phones/tablets…) specification for AR/XR streaming
    - Media formats
    - Signaling and Delivery
  - STAR and EDGAR (STAGE 2 and STAGE 3) architecture based on 5GMSA + EDGE
    - Extension and not addition

Artificial Intelligence

- **Motivation**
  - SA1 has completed a Release 18 on AI/ML model transfer in 5GS: Very much media oriented
    - Very much media oriented
  - No intent to standardize a neural network but rather to define the mechanisms for AI model updates and transfer, including compression.
- **Proposed actions**
  - Study Item on SA4 need to do anything on media specific model updates/transfer

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Artificial Intelligence – Roadmap

- **Release 17**
  - None
- **Release 18**
  - Study item on “what SA4 needs to do for AI/ML Model delivery/update” in addition of other organizations:
    - General delivery of AI/ML model
    - MPEG’s “Compression of Neural Networks”
    - Other organizations’ work on the topic

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Thank you

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