

# **RTCP XR Report for video Quality Monitoring**

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# RTCP XR Report for video Quality Monitoring

- Objective
  - Provide accurate measures of video quality for operator by conveying video quality metrics in the RTCP XR packets when transporting video across a network.
- Motivation
  - Offer the performance monitoring capability to ensure all end users obtain acceptable video/audio quality
  - No block types used for conveying video quality metrics in RFC3611
  - The network dependent factors that affect video/audio quality sometimes are not sufficient to measure video quality

# Requirements for the solution

- The main drive for performance monitoring comes from operator
  - Help diagnose the potential network impairment,
  - Facilitate in root cause analysis
  - Verify compliance of service level agreements (SLAs) between Internet Service Providers (ISPs) and content provider.

# Problem description

- The network dependent factors sometimes are not sufficient to measure video quality
  - The network dependent factors that affect video/audio quality consist of Packet losses, delay and jitter
  - The application specific factors that affect video quality includes video codec and loss recovery technique, coding bit rate, packetization scheme, and content characteristics.
  - The ability to analyze the video in the application layer provides quantifiable measurements for subscriber QoE that may not be captured in the transmission layers or from the RTP layer down.

# Problem description

- No block types used for conveying video quality metrics in RFC3611
  - The metrics contained in the report block described in RFC3611 mostly focus on MINC application and VOIP application.

# Proposal

- Six new report block formats are defined for conveying video quality metrics
  - Synchronization information block type
    - RTP Flows Synchronization Delay Report Block (RTP layer metrics)
    - Audio-Video Synchronization Report Block (RTP layer metrics)
  - Summary metrics block type
    - Statistics Summary Report Block (layer 7 metrics)
    - TR 101 290 Decodability Metrics Block (layer 7 metrics)
    - Video Stream Metrics Report Block (layer 7 metrics)
    - Perceptual Quality Metrics Block (layer 7 metrics)

# Next Step

- Request to accept draft as WG item
- Encourage more review of draft and early feedback