

**draft-wenger-avt-rtp-jvt-01.txt**

# **RTP Payload for JVT Video**

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# Changes in the I-D

- **RTP Timestamp == Presentation TS**
- **90 kHz fixed clock**
- **Two types of Aggregation packets**
  - **Single-Time Aggregation STAP**
    - (all NALUs share the same timestamp)
  - **Multi-time Aggregation MTAP**
    - includes a 16 bit unsigned TS offset per NALU
- **Changes reflecting the new JVT draft**

# Changes in JVT video NAL

- **Terminology: NALP -> NALU**
- **Introduction of Picture Layer**
  - Will hopefully go away next week
- **Disposable Flag**
  - Indicates that a NALU is not required for prediction and can be disposed
- **Many, many in the VCL**

# Open Issues

- **Efficiency of MTAPs?**
- **Is a 16 bit TS offset in MTAPs sufficient?**
- **Marker Bit: mark end of slice?**
- **WG work item**
  
- **(Alignment with MPEG-4 packetization)**

# MTAP layout

<b>RTP Header</b>	<b>12 bytes</b>
<b>NALU Size</b>	<b>2 bytes</b>
<b>NALU TS Offset</b>	<b>2 bytes</b>
<b>NALU</b>	<b>variable, 10 – 100 - 1400 bytes)</b>
<b>NALU Size</b>	<b>2 bytes</b>
<b>NALU TS Offset</b>	<b>2 bytes</b>
<b>NALU</b>	<b>variable</b>

# MTAP

- **Should we have several MTAPs w/ 8/16/24 bit TS offsets?**
  - is 16 bit enough (2/3<sup>rd</sup> of a second)
- **Payload header that signals presence/size of TS offset per NALU**
  - Limit 16 NALUs per MTAP
  - Fixed 32 byte PH
  - 2 bits per possible NALU, indicating
    - 0, 8, 16, 24 bits TS offset

# Marker Bit

- **No need for End-of-picture signal**
  - **Meaningless w/ FMO (depends on decoder implementation)**
- **Would be helpful to signal End-of-Slice or End-of-NALU**
  - **See next slide**

# NALU Fragmentation

- **Helpful in certain retransmission scenarios, when gateways are involved**
- **Media-unaware Fragmentation**
- **Use Marker bit to signal end of NALU**