Preamble Acquisition of MPEG-TS Multicast Sessions

draft-xia-avt-mpeg2ts-preamble-00.txt
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Packetization into MPEG-2 TS

- Transport Stream defined by ISO/IEC 13818-1 or ITU-T H.222.0
- Preamble is necessary reference information which must be acquired before demux/decoder starts to process any data, e.g PAT, PMT.
Preamble illustration

Preamble TSes are delivered repeatedly and dispersed among other TSes
Preamble Acquisition and Cache

- MPEG2-TS Parser in RS extracts and caches TSes with preamble information.
- These preamble TSes are packed into new created RTP packets which are sent to a RTP receiver prior to unicast burst.
Comparison of the two alternatives

<table>
<thead>
<tr>
<th></th>
<th>begen-avt-rtp-mpeg2ts-preamble</th>
<th>xia-avt-mpeg2ts-preamble</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format for carrying preamble</td>
<td>New defined</td>
<td>RFC4588</td>
</tr>
<tr>
<td>Requirement of RR</td>
<td>Post-processing</td>
<td>None</td>
</tr>
<tr>
<td>Advantage</td>
<td>Flexibility</td>
<td>Simplicity</td>
</tr>
</tbody>
</table>

The preamble TSes sent from RS are the same as the TSes after RR’s post processing
Mailing list discussion highlights

Q: Is it a misuse RFC4588 for carrying preamble?
A: RFC4588 reads “RTP retransmission is an effective packet loss recovery technique for real-time applications with relaxed delay bounds”. RAMS is not a retransmission solution as specified in RFC4588. This draft shares the same justification as RAMS to use RFC4588 format.

Q: How to set OSN field when RFC4588 is used?
A: Preamble RTP packet is sent prior to the burst.
   1st preamble packet (SN: 2000 - OSN: 99)
   1st burst packet (SN: 2001, OSN: 100)
   2nd burst packet (SN: 2002, OSN: 101)
Thank You