The -avt-rtcp-xr-* drafts

draft-ietf-avt-rtcp-xr-burst-gap-discard-01, draft-ietf-avt-rtcp-xr-burst-gap-loss-01,
draft-ietf-avt-rtcp-xr-concsec-01, draft-ietf-avt-rtcp-xr-delay-01,
draft-ietf-avt-rtcp-xr-discard-01, draft-ietf-avt-rtcp-xr-jb-01,
draft-ietf-avt-rtcp-xr-loss-conceal-01, draft-ietf-avt-rtcp-xr-meas-identity-01,
draft-ietf-avt-rtcp-xr-pdv-01, draft-ietf-avt-rtcp-xr-postrepair-loss-01,
draft-ietf-avt-rtcp-xr-qoe-00, draft-ietf-avt-rtcp-xr-siglevel-00

IETF74, San Francisco 22-27 Mar 2009

Geoff Hunt
Alan Clark
Refresher - why **twelve** drafts?

- The result of “re-architecting” RTCP-HR
  - Metrics are largely the same as those in RTCP-HR
- A single block per draft
- A very few closely-related metrics per block
- Designed for re-use across applications
- Blocks for
  - Transport (loss, delay variation)
  - Terminal behaviour (de-jitter buffer)
  - Quality of user experience (VoIP, and starting on video)
- Applications are *not* expected to implement all metrics
- Blocks can report *cumulative* or *interval* metrics
<table>
<thead>
<tr>
<th>Block Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT=207 (XR), length, SSRC of sender</td>
<td></td>
</tr>
<tr>
<td>BT=K (identity), tag1, SSRC of stream source, seq #, durations</td>
<td></td>
</tr>
<tr>
<td>BT=M (burst-gap loss), tag1, metrics</td>
<td></td>
</tr>
<tr>
<td>BT=K (identity), tag2, SSRC of stream source, seq #, durations</td>
<td></td>
</tr>
<tr>
<td>BT= L (qoe), tag2, metrics</td>
<td></td>
</tr>
<tr>
<td>BT=M (burst-gap loss), tag2, metrics</td>
<td></td>
</tr>
<tr>
<td>BT=N (delay variation), tag2, metrics</td>
<td></td>
</tr>
</tbody>
</table>
The metrics blocks

• Three broad classes of metrics in the eleven blocks:
  – Transport metrics
    • Loss, delay variation
    • Relevant to all RTP applications
  – Transport-related mixer or end system metrics
    • Concealment, de-jitter buffer performance
    • Relevant to RTP applications with a de-jitter buffer
  – Quality of experience
    • Opinion scores, signal levels
    • Opinion scores relevant for applications which define them
    • Signal levels block applicable to audio, voice and video
What has changed in the -01 versions? (1)

• “Changes from previous version” in each draft
• Clarified and extended “IANA Considerations”
• Changes to more readable SDP tags for blocks
• VoIP-specifics “separated out”
What has changed in the -01 versions? (2)

• “-meas-identity”
  – SDP signalling now implicit
  – Removed forwarding count (Colin Perkins’ comment)

• “-concsec-”
  – Added example to help define concealment
  – Added text based on Roni Even’s and Randall Jessup’s posts, for applicability to video

• “-pdv-”
  – Added guidance on when to use each PDV metric
  – Details of new registry of PDV types in IANA section
Next steps...

• Milestones
• Please review
  – Against your use cases
  – For clarity
  – For usefulness of metrics
  – For ease and economy of implementation