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-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

The measurement identity block



BT=K (identity), tag1, SSRC of stream source, seq #, durations

BT=M (burst-gap loss), tag1, metrics

Link by tag1

BT=K (identity), tag2, SSRC of stream source, seq #, durations

BT= L (qoe), tag2, metrics

BT=M (burst-gap loss), tag2, metrics

BT=N (delay variation), tag2, metrics

Link by tag2

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
- VolP-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