Guidelines to support RTCP end-to-end in Back-to-Back User Agents (B2BUAs)

draft-ietf-straw-b2bua-rtcp-01

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A reminder

Deliverable
A document defining the requirements for B2BUAs to support RTCP end-to-end submitted to the IESG as PS

What has changed?

Several changes after London

- ▶ Updated references and terminology
- ▶ Added more RTCP packet types
- ▶ Added guideline on SDP 'rtcp' attribute
- ▶ Added discussion on impact of media security

Only partly changed

- ▶ Attempted mapping to RTP topologies
- ▶ More on that in separate discussion later...

References and Terminology

Updated both

- Aligned with Taxonomies RFC [RFC7092]
- Added RTP Topologies [RFC5117]
  [I-D.ietf-avtcore-rtp-topologies-update]

Terminology improved

- Probably still needs some work, though

RTCP Packet Types

More packet types (from IANA) added to Media-Aware section

- Extended Reports (XR) [RFC3611]
    - SSRCs, as usual
    - *begin_seq* and *end_seq* in Report Blocks, if needed
- Receiver Summary Information (RSI) [RFC5760]
    - SSRCs, as usual
    - Same attention for Collision Sub-Report Block
- Port Mapping (TOKEN) [RFC6284]
    - SSRCs, as usual
    - More?

Other types needed?

SDP 'rtcp' Attribute

Added discussion on SDP 'rtcp' Attribute

- ▶ Mentioned in London as common cause of B2BUA malfunctions
    - ▶ If present, it MUST be replaced
    - ▶ If not present, it SHOULD be provided to avoid ambiguity

Media Security

Clarified that Media Security can have an impact

- ▶ SRTP/SRTCP prevents modification of RTP headers and RTCP packets
- ▶ Not an issue for Media-unaware Relays
    - ▶ ... as long as the SDP is not messed up with, of course
- ▶ Can be an issue for Media-aware Relays and Terminators
    - ▶ Manipulating RTP headers not an option
        - ▶ Hashing of RTP packets would be violated
        - ▶ RTCP packets could not be updated accordingly
    - ▶ Only way is to act as MITM
        - ▶ Unprotect SRTP/SRTCP, modify what necessary, protect again
        - ▶ Keying stuff to be updated in SDP with own info, of course
        - ▶ End-to-end security lost as part of the process

More on that in the DTLS-SRTP draft

Preparing the ground...

STRAW Taxonomies vs. RTP Topologies still an open issue

- ▶ Not a problem strictly related to this draft?
    - ▶ Separate discussion in next presentation
- ▶ Nevertheless, attempted a simple mapping
    - ▶ Media Relay ⟷ RTP Transport Translator
    - ▶ Media-aware Relay ⟷ RTP Translator
    - ▶ Media Terminator ⟷ RTP Media Translator

Is this enough?

Questions? Comments?