Guidelines for Extending RTCP

draft-ietf-avt-rtcp-guidelines-00.txt

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Aims

- Outline the design philosophy of RTCP
  - Capabilities
  - Limitations
- Provide guidance for those developing extensions to RTCP
  - Commonly encountered problems and issues
  - General and specific guidelines for extensions

Changes Since Last Meeting

- Add discussion of the group communication nature of RTP and its implications for RTCP
- Add discussion of appropriate extension points
- Add security considerations
  - Privacy, congestion control, denial of service
  - Discuss use of RTCP to convey keying information vs. running another keying protocol on the same port
- Significant editorial reworking

Group Communication

- Strongly encourage RTCP extensions to consider the inherent group communication nature of RTP
    - IP and overlay multicast
    - Middle boxes: MCUs, mixers and translators
    - Group communication getting more common
    $\Rightarrow$ require graceful degradation with increasing group size
    $\Rightarrow$ point solutions for two party sessions less useful

    - Is this guidance appropriate?

Extension Points for RTCP

- Add discussion of appropriate extension points:
  - Profile-specific extensions to SR/RR packets, SDES items, XR report blocks, AVPF feedback messages, APP packet types, and RTCP packet types

- Discourages standardisation of APP packets
  - APP packets widely used, but other extension points generally more appropriate
  - Take the semantically right decision (rather than using APP as kitchen sink extension point)
  - Does the working group agree with this aim?

Extension Points for RTCP (2)
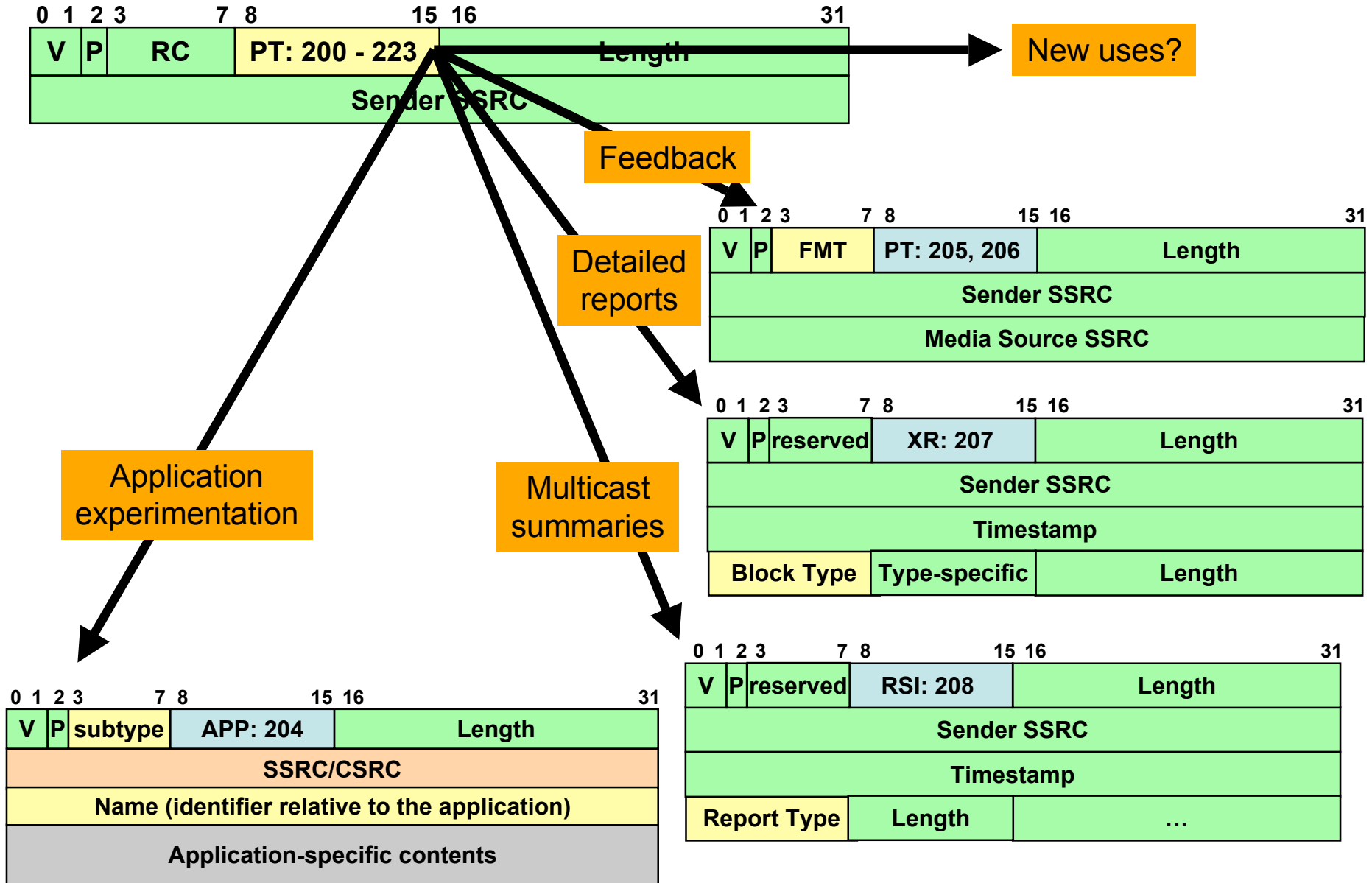
RTCP for Network Management

- Section 4 notes:
  - "The amount of information going into RTCP reports should primarily target the peer (and thus include information that can be meaningfully reacted upon). Gathering and reporting statistics beyond this is not an RTCP task and should be addressed by out-of-band protocols."
  - 3rd party monitoring and sender adaptation may need quite different information at different timescales
  - Example: draft-ietf-sipping-rtcp-summary-03
    - Defines a SIP event package for reporting (for RTCP XR info)
    - Complete session, interval, and alert reporting
    - No real need to tie this to RTCP reporting (could be richer)
- This has implications for a monitoring architecture, since it requires metrics for network and service management be transported using other protocols
- Is this an appropriate architectural choice?

Next

- Shall we
  - Leave this draft around for a while and continuously update it to collect further issues and suggestions OR
  - Shall we get this out this year (fast track to WGLC)?