

MPRTP Update

draft-singh-avt-mprtp-01.txt

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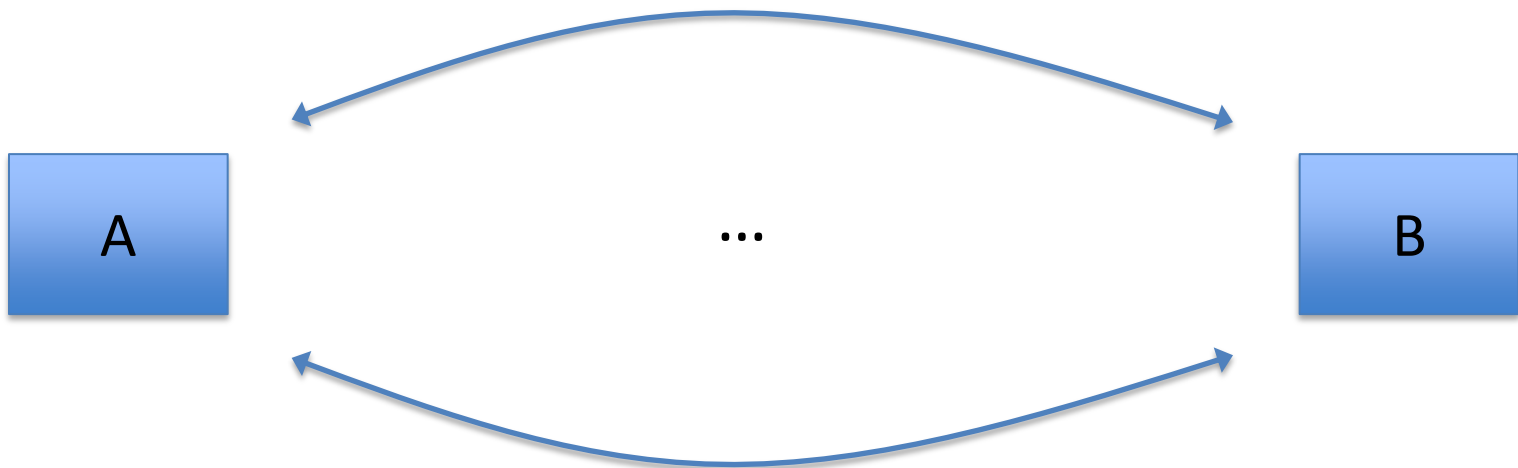
Jörg Ott

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AVT WG – 11 November 2010

Reminder

- Splitting an RTP session across multiple paths for load balancing and/or robustness
- Seemed to be a ok idea as per Maastricht feedback



Basic MP-RTP Operation (1)

- Backwards-compatible design
 - Aggregate RTP flow split into subflows
 - Use RTP extension headers (RFC 5285)
 - To assign packets to subflows
 - Use an RTCP extension mechanism for subflows
 - Subflow-specific reporting to determine path-specific characteristics
 - Aggregate and per-subflow reporting to apps
 - Should support legacy operation

Basic MP-RTP Operation (2)

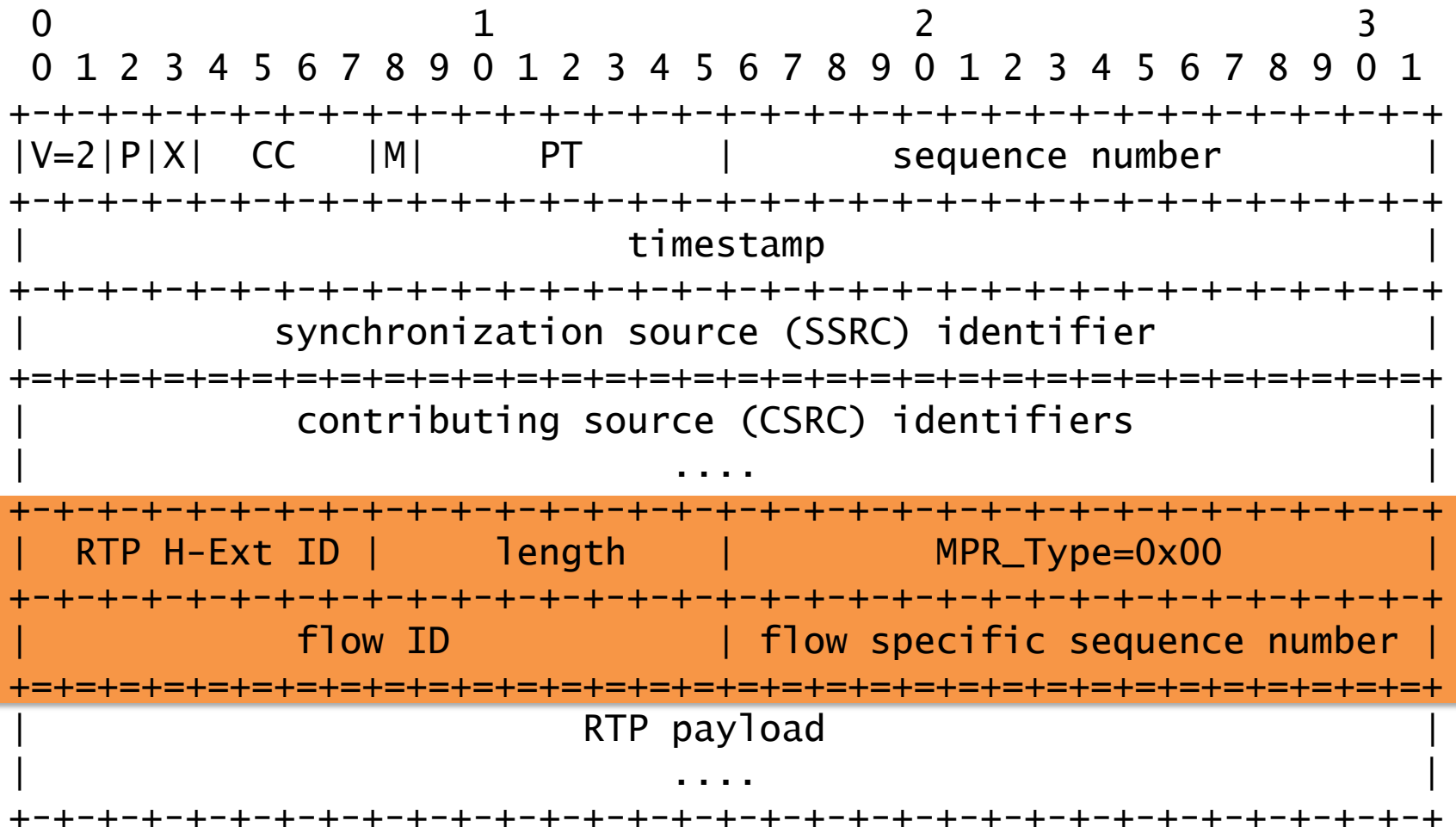
- Start with an initial RTP session
 - Learn about additional paths/interfaces
 - SDP signaling up front (e.g., ICE) and RTCP signaling
 - Upgrade to MP-RTP during an ongoing session
 - Basic capability indicated in SDP
 - Instantiate sub-sessions in-band to avoid complex synchronization with signaling
 - Subflow have own identifier and sequence #



Basic MP-RTP Operation (3)

- Subflow reporting
 - Provide a framework allowing the use if any RTCP report format available (no constraints)
 - Basis for packet scheduling decisions
- RTP packet transmission
 - Assign each packet to a subflow
 - Schedule according to observations on the relative path performance
 - Scheduling algorithms out of scope
- Packet reception and playout handling

MP-RTP Header



MP-RTCP Reports

- Interface announcement
- Subflow reporting
 - Provide a subflow report prefix report
 - Following reports will then apply to this subflow
 - Aggregate reports would come first
- Currently being revised
 - not all changes made it into the -01 draft

Next Steps

- Some draft restructuring
 - Interface announcements to be only in RTCP
- Fill in the gaps and reconcile details
- Discuss fast session establishment
 - “Burst RTCP” (check the need for typical sessions)
- Next draft: WG item?