~~RID~~

RtpStreamId and RepairedRtpStreamId

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Comments during WGLC

- System in which a single identifier covers both Source RTP Streams and their repair streams, while sufficient for WebRTC use, causes concerns for more general use.

- This echoes previous concerns expressed earlier

- The people who seem to have a strong opinion on the topic together got together, and I think we have something that everyone can live with
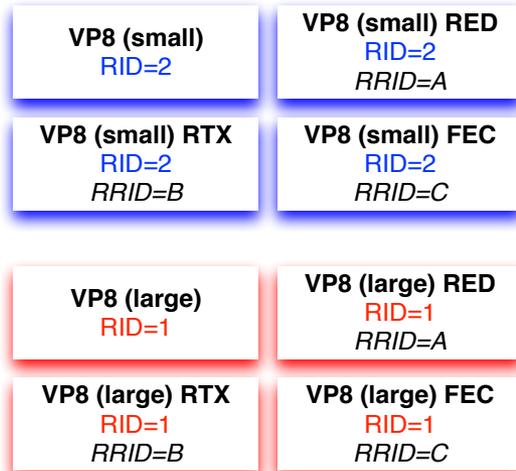
Proposed Change

- RTP header items/RTCP SDES items have new names *and new meanings:*
  - **RtpStreamId** is unique per RTP stream (basically, has the same ordinality as SSRC)
  - **RepairedRtpStreamId** can only appear in Repair RTP Streams, and indicates which stream is being repaired

Proposed Change (Eyechart Version)

Old

```
m=video 10000 RTP/SAVPF 100 116 117 96
a=rtpmap:100 VP8/90000
a=fmtp:100 max-fs=3600; max-fr=30
a=rtpmap:116 red/90000
a=rtpmap:117 ulpfec/90000
a=rtpmap:96 rtx/90000
a=sendrecv
a=rid:1 send max-width=1024;max-height=768
a=rid:2 recv max-width=320;max-height=200
```

VP8 (small)	VP8 (small) RED
RID=2	RID=2
	RRID=A

VP8 (small) RTX	VP8 (small) FEC
RID=2	RID=2
RRID=B	RRID=C

VP8 (large)	VP8 (large) RED
RID=1	RID=1
	RRID=A

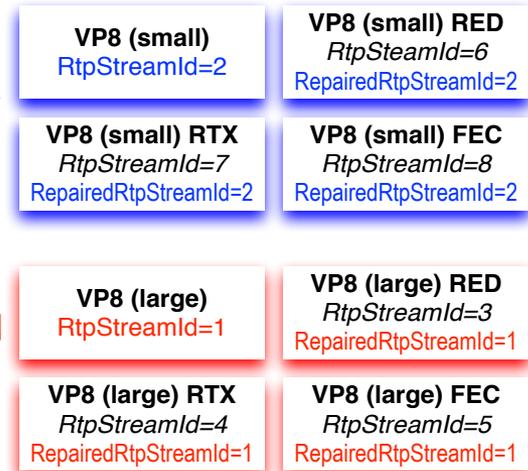| VP8 (large) RTX	VP8 (large) FEC
RID=1	RID=1
RRID=B	RRID=C

New

```
m=video 10000 RTP/SAVPF 100 116 117 96
a=rtpmap:100 VP8/90000
a=fmtp:100 max-fs=3600; max-fr=30
a=rtpmap:116 red/90000
a=rtpmap:117 ulpfec/90000
a=rtpmap:96 rtx/90000
a=sendrecv
a=rid:1 send max-width=1024;max-height=768
a=rid:2 recv max-width=320;max-height=200
```

VP8 (small)	VP8 (small) RED
RtpStreamId=2	RtpSteamId=6
	RepairedRtpStreamId=2

VP8 (small) RTX	VP8 (small) FEC
RtpStreamId=7	RtpStreamId=8
RepairedRtpStreamId=2	RepairedRtpStreamId=2

VP8 (large)	VP8 (large) RED
RtpStreamId=1	RtpStreamId=3
	RepairedRtpStreamId=1

VP8 (large) RTX	VP8 (large) FEC
RtpStreamId=4	RtpStreamId=5
RepairedRtpStreamId=1	RepairedRtpStreamId=1

A

Note: This change doesn't modify[*] the SDP for draft-ietf-mmusic-rid

```
m=video 10000 RTP/SAVPF 100 116 117 96
a=rtpmap:100 VP8/90000
a=fmtp:100 max-fs=3600; max-fr=30
a=rtpmap:116 red/90000
a=rtpmap:117 ulpfec/90000
a=rtpmap:96 rtx/90000
a=sendrecv
a=rid:1 send max-width=1024;max-height=768
a=rid:2 recv max-width=320;max-height=200
```
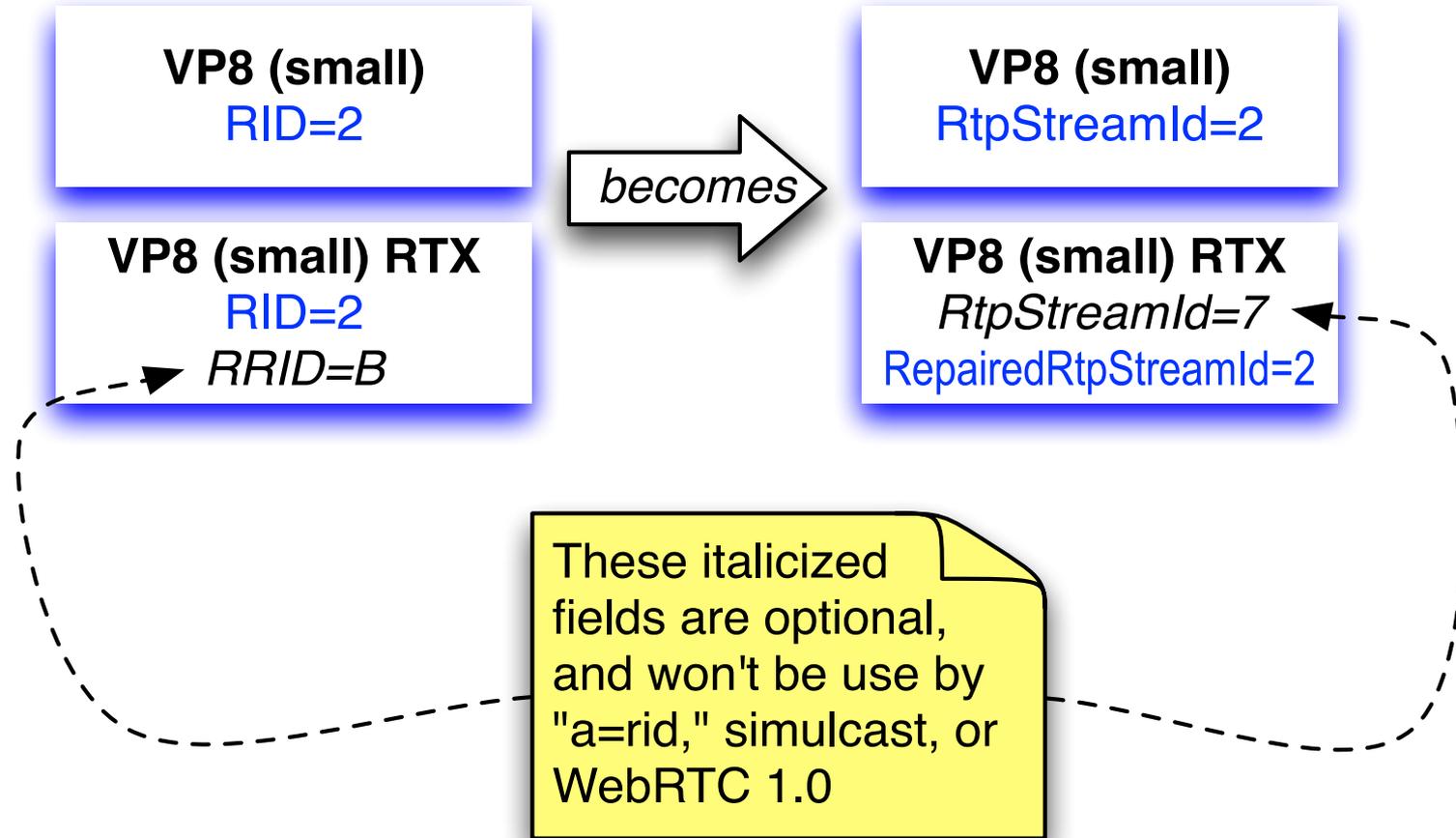
* Well, not really. There will be another RTP extension header mapping.

This only changes the RTP/RTCP

VP8 (small)
RID=2

VP8 (small) RTX
RID=2
RRID=B

becomes

VP8 (small)
RtpStreamId=2

VP8 (small) RTX
RtpStreamId=7
RepairedRtpStreamId=2

These italicized fields are optional, and won't be use by "a=rid," simulcast, or WebRTC 1.0

Implications on other WGs

- MMUSIC:
  - "a=rid" lines contain **RtpStreamId**s (and we probably go back to calling them "Restriction ID" or some other contrived backronym).
  - Simulcast draft shouldn't need to change.
- W3C WebRTC:
  - "`RTCRtpEncodingParameters.rid`" in WebRTC 1.0 API means the same thing as "a=rid" in SDP. (This is effectively not a change).
- For RID/simulcast/WebRTC use, this change means that the Source RTP Stream and the Redundancy RTP Streams now use two different header extensions instead of the same one.

Administrative Quirk

Unless someone is going to get really upset about it, I'm planning to keep the document name "`draft-ietf-avtext-rid`," even though it no longer contains a "rid" or even reference to something called a "rid".

Path Forward

- Assuming everyone here is okay with the proposed change, I'll revise the document accordingly and push out a new version in the next couple of weeks.

- Presumably, we're going to want another WGLC after that change.

- If things go well, I'll pester the chairs to get the doc in front of the IESG by early May.