

# **ESID (LID? EPT?) Header Extension**

Like the MID header extension for multiple layers

# Our Three Layers of Taxonomy

Is missing an important box

Taxonomy	Example	RTP Before	RTP Now
Media Source	Camera, Screencast	PT or SSRC	MID
Encoded Stream, Dependent Stream	Simulcast layer, Temporal layer, Quality layer	PT or SSRC	???
RTP Stream	RTX, FEC, neither ("primary")	PT or SSRC	PT

# Fill in the box

Like the MID header extension for layers

Taxonomy	Example	RTP Before	RTP Proposal
Media Source	Camera, Screencast	PT or SSRC	MID
Encoded Stream, Dependent Stream	Simulcast layer, Temporal layer, Quality layer	PT or SSRC	<b>ESID</b> (LID? EPT?)
RTP Stream	RTX, FEC, neither ("primary")	PT or SSRC	PT

# Benefits

- No need to signal SSRCs.
- No risk of running out of PTs.
- No overloading meaning of PTs to include layer information

# What about SDP?

$$\text{fmt} = (\text{LID} \ll 7) + \text{PT}$$

fmt is "typically PT". This proposal is to extend that to allow fmts > 127 by including extra fmt bits in the header extension.

# SDP example

m=video 9 RTP/SAVPF 101 229

a=rtpmap:101 VP8/90000

a=rtpmap:102 VP8/90000

a=mid:camera

a=fmtp 101 ... (LID=0, PT=101)

a=fmtp 229 ... (LID=1, PT=101)

# Won't this make endpoints explode?

Steps to offer:

1. Offer the hdr ext
2. Answer with  $\text{hdr ext} + \text{fmt} > 127$
3. Re-offer with  $\text{hdr ext} + \text{fmt} > 127$

# Benefits

- Use the ESID header extension with no new SDP grammar
- Have PTs > 127

# Conclusion

1. A generally useful header extension like MID that puts valuable information in RTP.
2. Can fit into SDP with no new grammar.
3. Unlimited Encoded Streams, Dependant streams, and fmts

# Questions

1. Worth defining header ext?
2. Worth defining SDP?
3. What name? (ESID? LID? EPT?)