

Economical Use of Offer/Answer in Sessions with Multiple Sources

draft-ivov-mmusic-multiple-sources-00

Emil Ivov

Why would you use SDP?

- Compatibility with legacy
- It has a number of issues hashed out :
 - allows for transport establishment
 - initializing codec chains
 - (in some cases) key negotiation for SRTP

And beyond that?

What do we advise when people/WGs need stream control and contributor identification?

- Option: Stick to SDP
- Option: Go for upper-layer signalling
e.g.: Custom, XCON, RFC4575, WebRTC JS, CLUE channels
- Option: whichever works best for you

How Many Streams Can We Fit Here:

Offer :

```
v=0
o=carol 2 4 IN IP4 1.3.6.6
s=-
t=0 0
c=IN IP4 1.3.6.6
a=group:BUNDLE audio video

m=audio 5000 RTP/SAVPF 96 0
a=mid:audio
a=rtpmap:96 opus/48000/2
a=rtpmap:0 PCMU/8000

m=video 5002 RTP/SAVPF 97 98
a=mid:video
a=rtpmap:97 VP8/90000
a=rtpmap:98 H264/90000
```

Answer :

```
v=0
o=alice 2 4 IN IP4 6.4.3.1
s=-
t=0 0
c=IN IP4 6.4.3.1
a=group:BUNDLE audio video

m=audio 5000 RTP/SAVPF 96 0
a=mid:audio
a=rtpmap:96 opus/48000/2
a=rtpmap:0 PCMU/8000

m=video 5002 RTP/SAVPF 97 98
a=mid:video
a=rtpmap:97 VP8/90000
a=rtpmap:98 H264/90000
```

Motivation

- It works
- No Offer/Answer when adding/removing streams
This means potentially no signalling at all!
- No added glare risk
- No need to pre-announce SSRCs
(more possible topologies)
- Choose signalling that really fits your case:
Custom, XCON, RFC4575, WebRTC JS, CLUE channels

How does this relate to Unified Plan A

- Alternatives
- Plan A comes in at about the same level as all the other solutions we already mentioned:

Custom, XCON, RFC4575, WebRTC JS, CLUE channels

Open issues

- How do we recognise legacy.
 - max-ssrc ?
 - not sure how this relates to layering
- Distinguishing between UnifiedPlanA and NoPlanB style semantics
 - We only accept one
 - We specify « a=max-m-line »