

draft-polk-mmusic-dscp-attribute-01

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# The Requirement

- The ability to initially offer or dynamically change the DSCP of a session, with per stream granularity
- Why:
  - This gives endpoints the ability to offer what DSCP (perhaps therefore service class) a caller wants to use
  - This gives endpoints the ability to change the DSCP of a call mid-session based on changing network conditions

# The Candidates

- Do this in SDP in call set-up
- Do this in a SUB/NOT transaction within the same Call-ID
- Either solution requires new code
- (probably) the latter won't get implemented as widely

# The Proposal

- Modify SDP for call set-up
  - Media Level Attribute
    - For granularity of each stream within an offer/answer
  - To be set by offerer or server in signaling path (in offer and in answer)

# Offer examples

- An SDP message body for voice only

- Audio  
- UDP port # 49172  
- Codecs supported: G.711

```
v=0
o=alice 2890844526 2890844526 IN IP4 atlanta.com
c=IN IP4 10.1.3.33
t=0 0
m=audio 49172 RTP/AVP 0
a=rtpmap:0 PCMU/8000
```

- An SDP message body for voice and video

- Audio  
- UDP port # 49172  
- Codecs supported: G.711

- Video  
- UDP port # 51172  
- Codecs supported: H.261, H.263

```
v=0
o=alice 2890844526 2890844526 IN IP4 atlanta.com
c=IN IP4 10.1.3.33
t=0 0
m=audio 49172 RTP/AVP 0
a=rtpmap:0 PCMU/8000
m=video 51172 RTP/AVP 31 34
a=rtpmap:31 H.261/90000
a=rtpmap:34 H.263/90000
```

# Offer examples with this Extension

- An SDP message body for voice only

- Audio
- UDP port # 49172
- Codecs supported: G.711
- RTP DSCP 46, RTCP DSCP 8

```
v=0
o=alice 2890844526 2890844526 IN IP4
example.com
c=IN IP4 10.1.3.33
t=0 0
m=audio 49172 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=dscp 46/8
```

A new "a=" line in SDP indicating DSCP of this stream, and of RTCP

- An SDP message body for voice and video

- Audio
- UDP port # 49172
- Codecs supported: G.711
- RTP DSCP 46, RTCP DSCP 8

- Video
- UDP port # 51172
- Codecs supported: H.261, H.263
- RTP DSCP 41, RTCP DSCP 8

```
v=0
o=alice 2890844526 2890844526 IN IP4 example.com
c=IN IP4 10.1.3.33
t=0 0
m=audio 49172 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=dscp 46/8
m=video 51172 RTP/AVP 31 34
a=rtpmap:31 H.261/90000
a=rtpmap:34 H.263/90000
a=dscp 41/8
```

# Known Open Issues

- still has servers *doing* things
  - Some don't like this idea
- Determine the scale of this
  - i.e., for only one (private) domain, or many
- ...

# Next Steps

- Incorporate relevant suggestions
- Is there sufficient interest from WG to continue, perhaps as WG item?