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

```
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
```

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

```
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

  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

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

- An SDP message body for voice and video

  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

  • 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
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?