



SDP Bandwidth Attribute

draft-westerlund-avtcore-multistream-and-simulcast-00

Magnus Westerlund and Bo Burman

Ericsson

IPR Disclosure

- › Telefonaktiebolaget LM Ericsson (publ)'s has made a Statement about IPR related to this draft in <https://datatracker.ietf.org/ipr/1592/>

Outline

- › Issues with current SDP bandwidth modifiers
 -
 -
 -
 - Burstiness
- › Solution Proposal
- › Way Forward

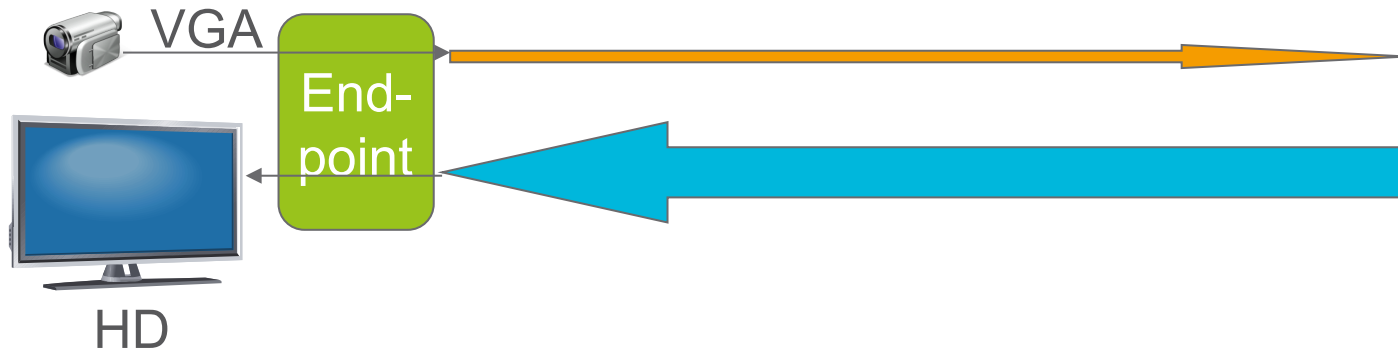
Asymmetric Paths and Applications

› Significantly different bandwidth between directions

– Asymmetric network restrictions (e.g. ADSL)

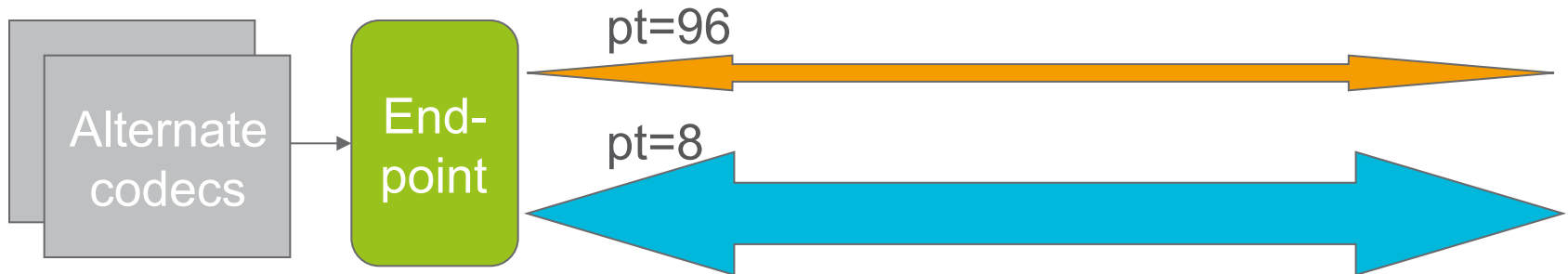


– Asymmetric application capabilities



Per Payload type Negotiation

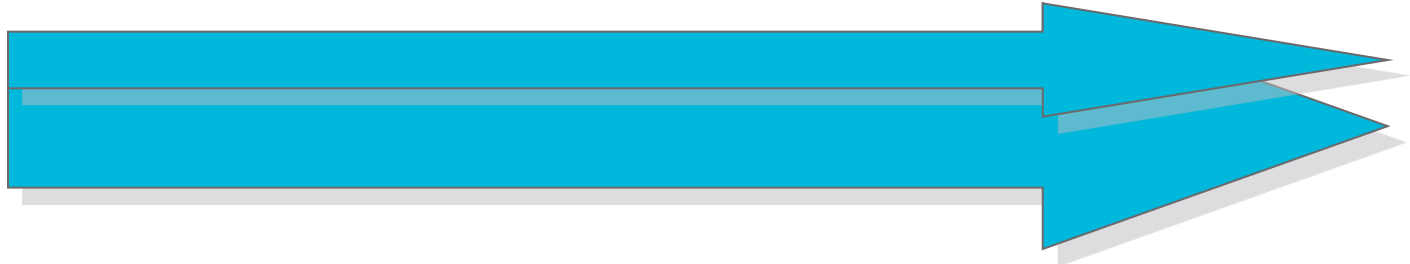
- › Significantly different bandwidth between payload types



- › Negotiate bandwidth per payload type and direction

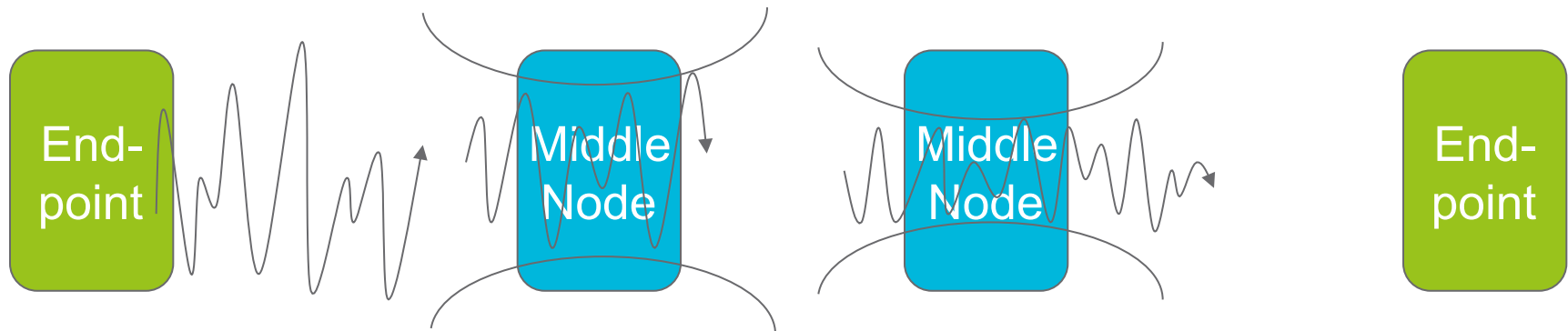
Multiple Streams

- › Different bandwidth depending on number of streams



Allowed Burstiness

- › Networks may contain bandwidth Filtering or Policing
- › Especially when QoS is used
 - IMS Policy Control
 - RSVP
- › To keep end-point within policy, the end-point needs to know more than just bandwidth



Summary of Issues

- › Shortcomings of current SDP:
 - Stating both capabilities and actual limitations when BW is asymmetric
 - Negotiating bandwidth per payload type and direction
 - Negotiate bandwidth on per stream basis in multi-stream sessions
 - Negotiate bandwidth on aggregate level in multi-stream sessions
 - Ensure that end-point know how bursty the can be.

New SDP Bandwidth Attribute

- › b= line not possible to extend with sufficient new semantics
- › An attribute with modularity
 - Direction: Send, Recv or Both
 - Scope: Extensible and proposes support for Payload Type specific
 - Semantics that specifies both interpretation and format of values
- Per source and payload type token buckets
 - › a=bw:recv pt=96 SMT:tb=64000:320
 - › a=bw:recv pt=97 SMT:tb=12200:128
- Entire media level aggregate as token bucket
 - › a=bw:send pt=* AMT:tb=384000:4096
- Allow for future needed semantics to be defined

Way Forward

- › Interest in this WG to rework SDP bandwidth?
- › Currently part of a big draft.
 - Will be split out into a MMUSIC individual draft
- › Additional issues / use cases that should be tackled?



ERICSSON