A Taxonomy of Grouping Semantics and Mechanisms for RTP Sources

draft-ietf-avtext-rtp-grouping-taxonomy-02

Changes Since -01

› Major re-structure
  – Removed excessive sub-sectioning for better TOC visibility of terms
  – Removed topology section to avoid conflict with topology-update

› Added
  – Clock rate change [RFC7160] also valid reason for SSRC change
  – Sub-section on clock source signaling [RFC7273]
  – Sub-section on RTP stream duplication [RFC7197, RFC7198]
  – Section on mapping existing terms to taxonomy terms (see next slide)

› Changed
  – "Packet Stream" → "RTP Stream", more precise, from list comments
  – Clarified text SVC SST and MST, from list discussions
  – Removed incorrect statement on synchronization and CLUE scene
  – A number of editorial changes and improvements

Mapping of Existing Terms

› RTP terms from current RFCs or far-progressed drafts

› Describe in Taxonomy terms

› One term per sub-section; visible (sorted) in TOC

› More terms needed?

RFC 6190 Transmission Modes

Current draft: SST/MST is a (multi-)RTP Session property

SST-SS: A *single* RTP session with a *single* SST RTP stream from a single media source	**MST-SS:** *Multiple* (related) RTP sessions, each carrying exactly a *single* MST RTP stream per media source
SST-MS: A *single* RTP session with *multiple* SST RTP streams, each from a single media source	**MST-MS:** *Multiple* (related) RTP sessions, each carrying *one or more* MST RTP streams per media source

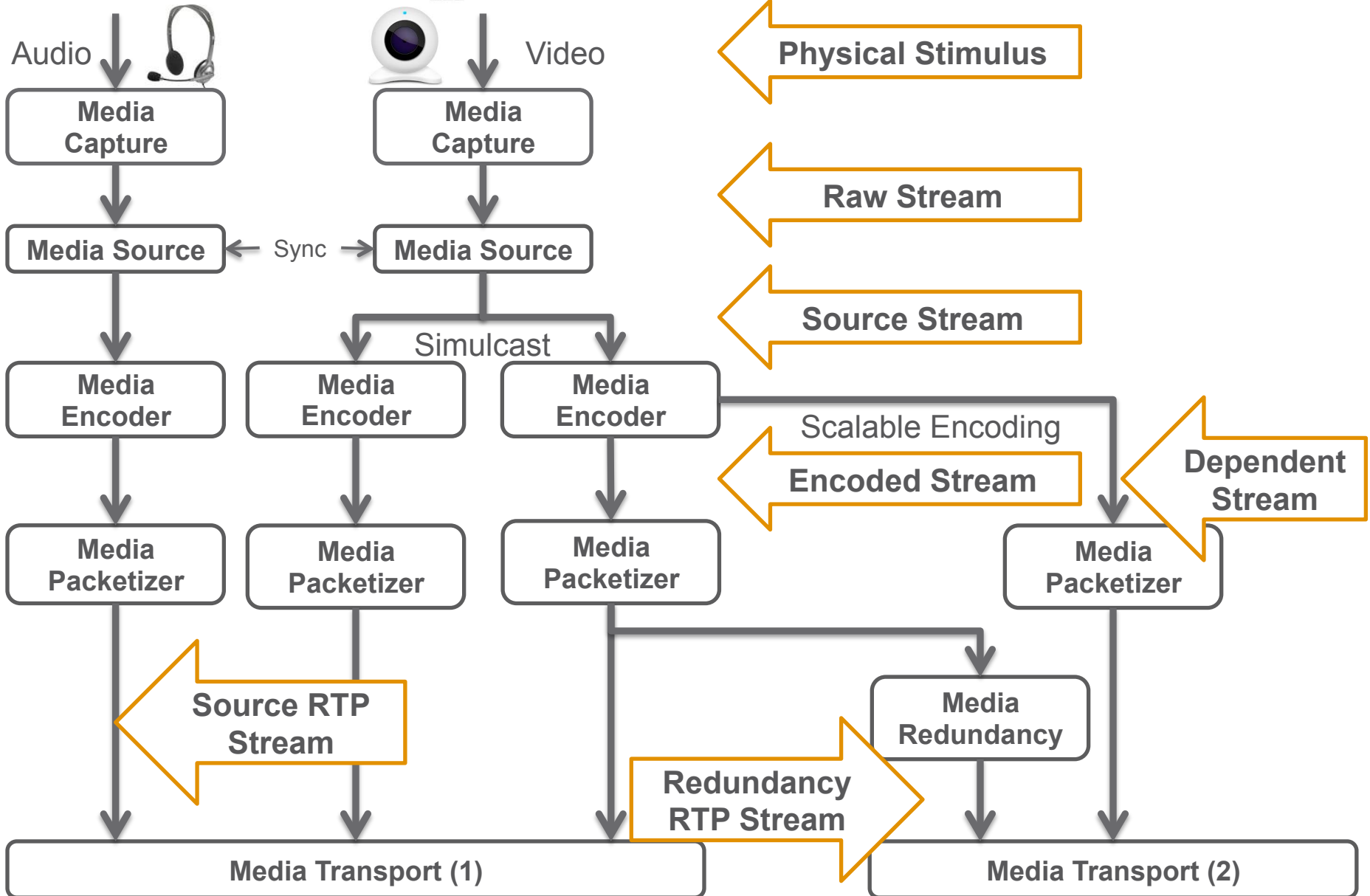Probably better: SST/MST is a per-media-source encoder property

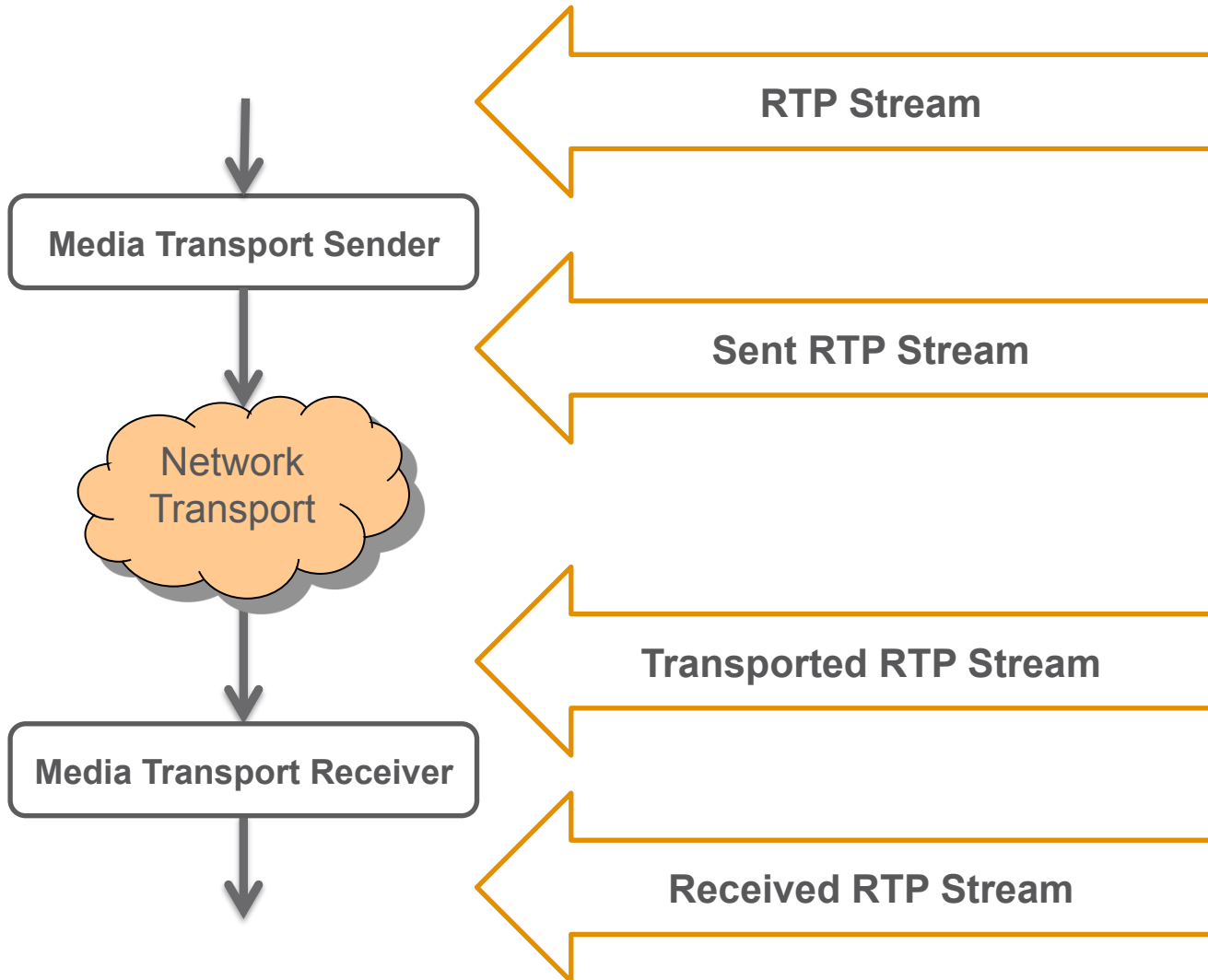|	
SST-SS: The encoder produces a *single* SST RTP stream that is sent in a *single* RTP session	**MST-SS:** The encoder produces multiple MST RTP streams, distributing a *single* RTP stream onto each of *multiple* RTP sessions
SST-MS: The encoder produces *multiple* SST RTP streams that are all sent in the same, *single* RTP session *(makes no sense for a single media source)*	**MST-MS:** The encoder produces multiple MST RTP streams, distributing *one or more* of them onto each of *multiple* RTP sessions

Media Chain Sender Side

Audio

Video

Media Capture

Media Capture

Physical Stimulus

Media Source ← Sync → **Media Source**

Raw Stream

Simulcast

Source Stream

Media Encoder

Media Encoder

Media Encoder

Scalable Encoding

Encoded Stream

Dependent Stream

Media Packetizer

Media Packetizer

Media Packetizer

Media Packetizer

Source RTP Stream

Media Redundancy

Redundancy RTP Stream

Media Transport (1)

Media Transport (2)

Media Transport Detailed

RTP Stream

Media Transport Sender

Sent RTP Stream

Network Transport

Transported RTP Stream

Media Transport Receiver

Received RTP Stream

Media Chain Receiver Side

Media Transport (1)	Media Transport (2)

Received RTP Stream

Received Redundancy RTP Stream

Media Repair

Repaired RTP Stream

Media Depacketizer	Media Depacketizer	Media DePacketizer	Media DePacketizer

Received Encoded Stream

Received Dependent Stream

Media Decoder	Media Decoder	Media Decoder

Received Source Stream

Media Sink	Media Sink	Media Sink

Audio

Video

Received Raw Stream
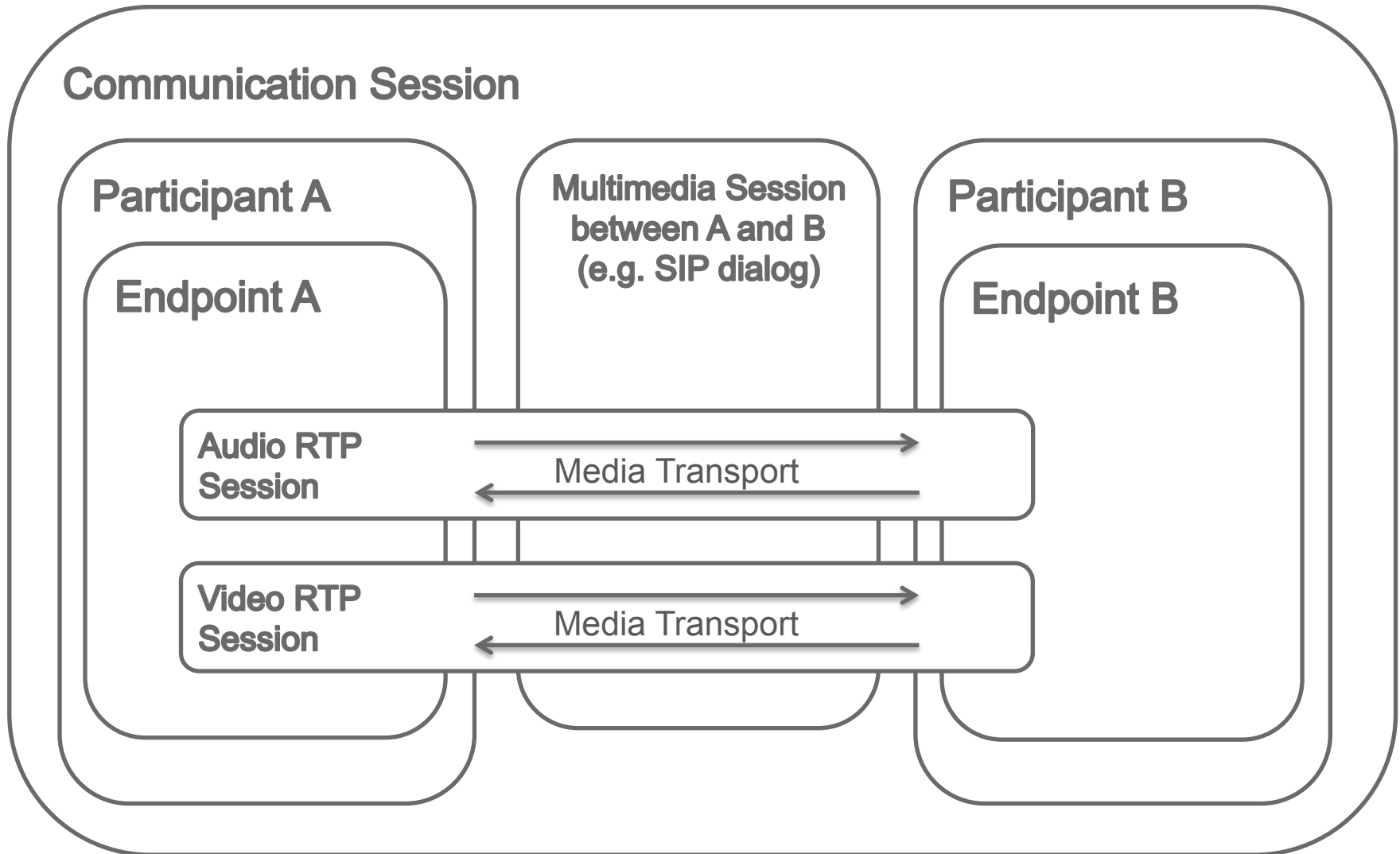
Media Render

Media Render Media Render

Communication Entities

Way Forward

› Ready for WG last call?