Use-Cases
draft-romanow-clue-telepresence-use-cases-01

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Overview

- Telepresence systems
  - Primary objective is for an immersive experience as close to "being there" as possible
    - Life-size video display
    - Eye contact
    - Gaze direction
    - Spatial audio

For Example

In Practice

- TP systems accomplish this by having multiple cameras and microphones
  - Send streams from multiple video and audio capture devices between endpoints (or to MCU/switchers)
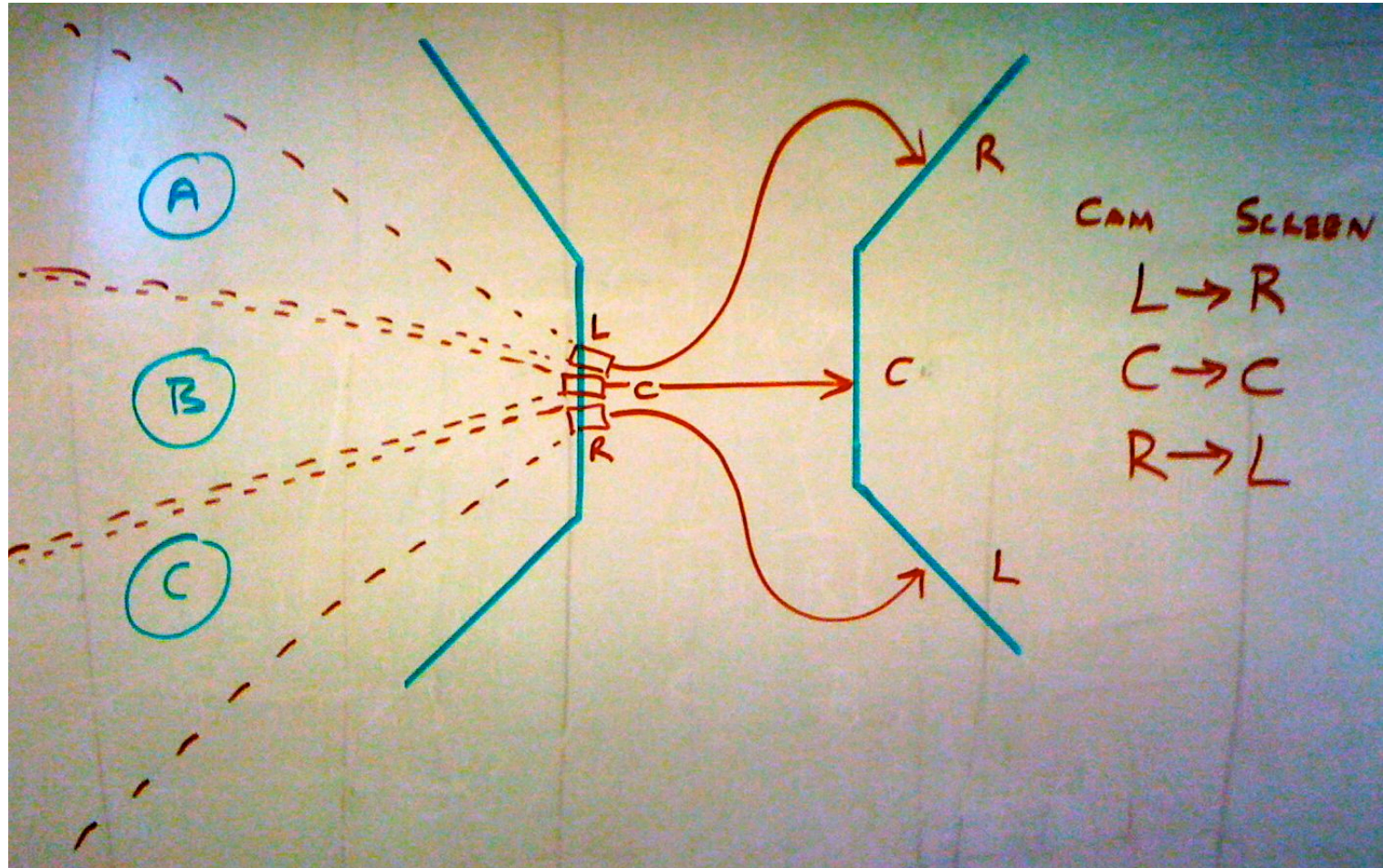
Endpoint Attributes/ Capabilities

- Existing systems pair one camera with each screen

- Systems vary in number of screens (1 and 3 being most common)

2-party Symmetric Use Cases

- Each EP has the same capability
    - E.g. 3 screen/cameras send to 3 screens/cameras, 1 sends to 1.
- In N to N case (N>1) need to preserve relative rendering of streams

    -

3 to 3 Example

2-Party Asymmetric Use Cases

- Asymmetric
  - Capabilities don't match (e.g. 3 to 1)
  - Endpoint with lower capability could:
    - Request all streams and shrink/compose
    - Direct sender to compose input into fewer streams
    - Select a specific video/audio source
    - Ask far-end to select based on activity or knowledge of which streams have content
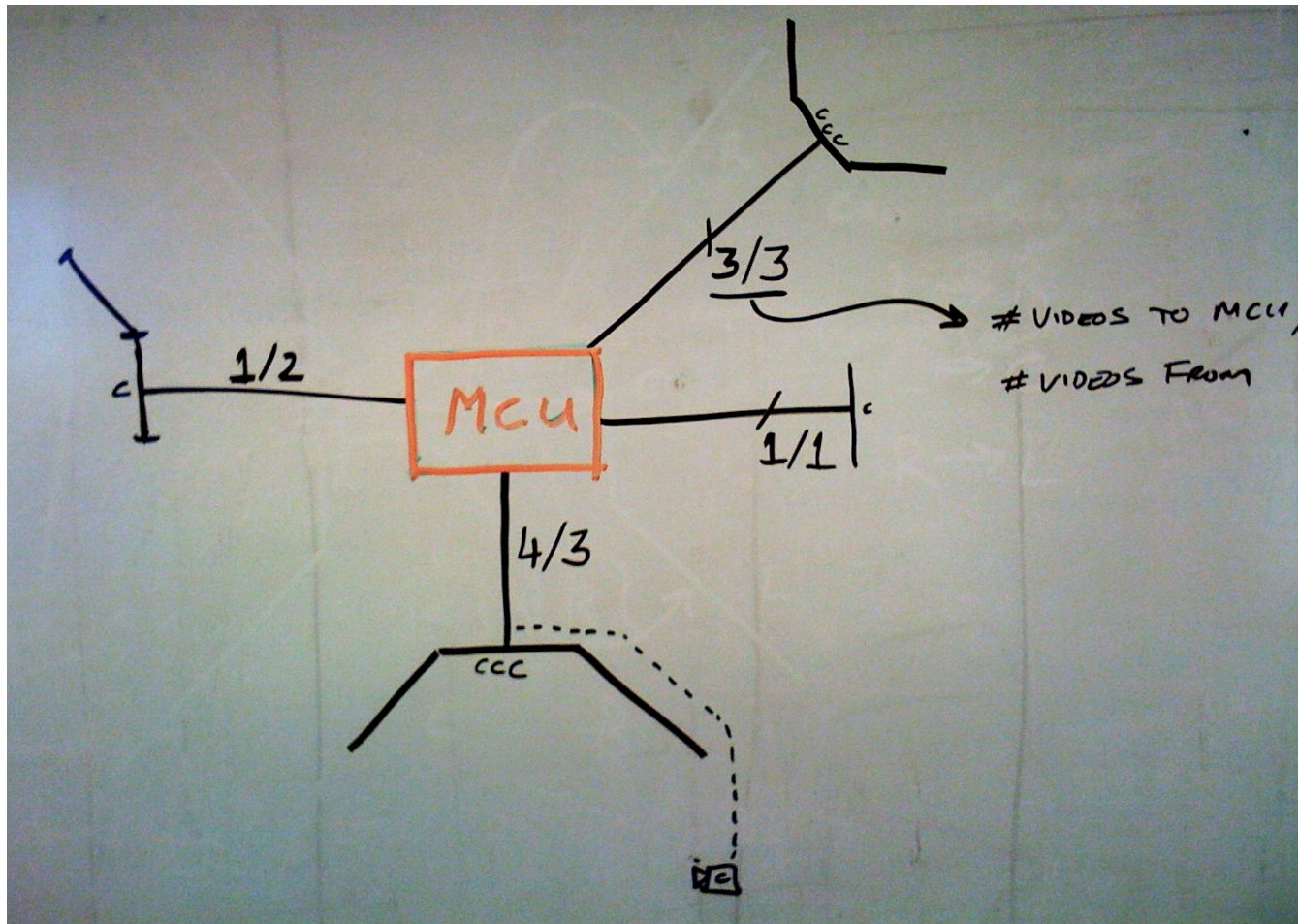
Multi-Party TP Use Cases

- TP multi-party calls typically involve a central resource
  - Media Control Unit (MCU)
  - Video stream selector/router
- Central device may send N streams, in general and endpoint can render M
- Central device may select from all incoming streams to provide feed to an endpoint
  - This may be centrally controlled, activity based or driven by each endpoints specific requests
  - Conceptually similar to asymmetric 2-party but are more potential sources

Multi-Party (2)

- Based on EP needs the central resource may require an EP to provide a video stream at different resolutions ("simulcast")

Multi–point Use Case Example

Additional Use Cases

- Present videos from traditional SIP video devices

- Dynamically add video sources from an endpoint based on meeting context
  - E.g. turn on a document camera or provide video stream of presentation

Anything Else?

- Are there other use-cases which will impact requirements?

Status

- Ready to call for WG adoption