WHEP: WebRTC-HTTP egress protocol

- Egress is out of scope of WISH WG
- WHEP reuses all the mechanisms that have been put in place for WHIP: draft is basically /WHIP/WHEP/g
- Why WHEP?
  - Interoperability between WebRTC services and products.
  - Reusing player software which can be integrated easily.
  - Integration with Dynamic Adaptive Streaming over HTTP (DASH) for offering live streams via WebRTC while offering a time-shifted version via DASH.
  - Playing WebRTC streams on devices that don’t support custom javascript to be run (like TVs).
- WHIP and WHEP can be used together for service interoperability
- Should we recharter the WISH WG to include egress?
WHEP Protocol Operation

- Sounds familiar?

Figure 1: WHEP session setup and teardown
WHEP Protocol Operation (WHEP Client as answerer)

- WHEP Player may wish the service to provide the SDP offer
  - avoid setting up an audio and video session when only audio is supported
  - some webrtc implementations don’t support createOffer (WTF)
  - Allows WHIP to WHEP interoperability

- Pros:
  - Issue with turn server config solved

- Cons:
  - Media server may not now the actual codecs when the WHIP player connects

- Should we adopt it in WHIP too?

Figure 1: WHEP session setup and teardown
What’s missing?

- WHEP has more requirements in terms of functionality than WHIP
- Need to define extensions to match DASH functionality
  - Multilanguage support
  - Remote pause/mute
  - Subtitles/Live captions
  - Metadata
  - Client side resolution/quality selection
  - Events?
Next steps

- Define and add protocol extensions for missing metadata
- Recharter WISH WG or present it in DISPATCH for creating a new WG?
Discussion