draft-murillo-whep-02

https://datatracker.ietf.org/doc/html/draft-murillo-whep-02

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WHEP: WebRTC-HTTP egress protocol

- WebRTC is still the best media transport protocol for real-time streaming.
- However, there is no standard signalling protocol available to pair with it:
  - SIP or XMPP are not designed to be used in broadcasting/streaming services, and there also is no sign of adoption in that industry.
  - RTSP, which is based on RTP and maybe the closest in terms of features to webrtc, is not compatible with WebRTC SDP offer/answer model
- As a consequence, each WebRTC streaming services requires implementing a custom ad-hoc protocol.
- Why WHEP is needed?
  - 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 (https://dashif.org/webRTC/report.html)
  - Playing WebRTC streams on devices that don't support custom javascript to be run (like TVs).
WHIP and WHEP

- WHIP and WHEP are very similar in scope and technical solution.
- 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.
- 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
WHIP/WHEP interoperability
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

- Recharter WISH WG or create a new WG?
- Define and add protocol extensions for missing metadata