

# WHEP integration checklist

The HTTP verbs of draft-ietf-wish-whep-03, the counter-offer flow, the vendor extension surface, and the 2026 platform list.

## POST — begin a playback session

*draft-ietf-wish-whep-03 §4.2*

To: WHEP endpoint URL  
 Headers: Content-Type: application/sdp · Authorization: Bearer ...  
 Body: SDP offer (recvonly · BUNDLE · single MediaStream)  
 Happy 201: Location: /sessions/{id} · ETag: "..." · body = SDP answer (sendonly)  
 406 counter-offer: body = server SDP offer · Location + valid-until=30s  
 409 Conflict + Retry-After: no live publisher yet (§4.2.8)

## PATCH — two distinct jobs

*§4.2.2 (SDP answer) and §4.4 (ICE)*

Job 1 — SDP answer to counter-offer: Content-Type: application/sdp · body = SDP answer (recvonly) · response 204 No Content  
 Job 2 — Trickle / restart: Content-Type: application/trickle-ice-sdpfrag · If-Match: "..." (trickle) or \* (restart)  
 Trickle OK: 204 No Content (no new ETag)  
 Restart OK: 200 OK + SDP fragment + new ETag  
 Errors: 412 stale ETag · 428 missing If-Match · 422 op not supported

## DELETE — end the session

*§4.3*

To: WHEP session URL (from Location)  
 Headers: Authorization: Bearer ...  
 Body: none  
 OK response: 200 OK · server releases ICE + DTLS + media  
 If skipped: RFC 7675 consent-freshness expires; loss detected in seconds.

## OPTIONS / GET — preflight and health

*§4.1 + CORS preflight*

OPTIONS: CORS preflight (mandatory for browsers)  
 OK response: 200 OK · Accept-Post: application/sdp · CORS headers  
 GET: 2XX with no body — liveness check only  
 Extensions: advertised via Link headers (rel = urn:ietf:params:whep:ext:\*)

## 2026 WHEP playback platform snapshot

Platform	WHEP	Layer sel.	Events	Notes
Cloudflare Stream	Yes (GA)	JSON API	—	Tracks draft-murillo-whep-01
Dolby Millicast	Yes (GA)	JSON API	SSE	Most mature events stream
AWS IVS Real-Time	Yes (GA)	—	—	Through Web Broadcast SDK
OvenMediaEngine	Yes (GA)	Query param	—	Common self-hosted choice
MediaMTX	Yes (GA)	—	—	Open-source media server
LiveKit / Janus / mediasoup	Yes	Through SDK	Vendor-specific	Self-hosted SFUs
Ant Media v2.10+	Yes (GA)	Vendor API	Yes	Self-hosted or managed
YouTube / Twitch / Facebook	No	—	—	HLS-first; no WHEP roadmap

### Browser client crib (RTCPeerConnection)

1. Create RTCPeerConnection. Add two transceivers in 'recvonly' (video + audio).
2. Call pc.createOffer() and pc.setLocalDescription(offer).
3. fetch(WHEP\_URL, { method: 'POST', headers: { 'Content-Type': 'application/sdp', 'Authorization': 'Bearer ' + token }, body: offer.sdp }).
4. On 201 → pc.setRemoteDescription({ type: 'answer', sdp: bodyText }). Save Location and ETag from response headers.
5. On 406 → parse counter-offer; pc.setRemoteDescription(counterOffer); pc.createAnswer(); PATCH it back.
6. pc.ontrack → attach to <video> element. On unload: fetch(DELETE) to the session URL.

### Pre-flight checklist

- Server speaks draft-ietf-wish-whep (POST → 201 + Location + ETag).
- Counter-offer (406) path handled by the player, or codecs hard-coded compatible.
- HTTPS enforced; never plaintext HTTP in production.
- Bearer token in Authorization header, not URL query string.
- TURN server configured (or platform-hosted TURN reachable).
- Vendor-specific layer selection / events extensions integrated where needed.
- Audience capacity planned per-viewer, not per-stream.
- Latency target verified end-to-end (WHIP + WHEP path measured).