Interactive Video Reference Design — Readiness Checklist

Pressure-test an interactive-video subsystem before you build: architecture, the data contract, the LMS standards boundary, accessibility, and analytics. Companion to the reference-design article.

A. Architecture completeness

- [ ] All seven subsystems named: authoring, store/delivery, player+overlays, interaction store, xAPI emitter, LMS/LRS, analytics
- [ ] Playback and adaptive delivery taken from a library/CDN — not rebuilt in-house
- [ ] The standards boundary (your app vs learning system) is drawn explicitly on the diagram

B. Data contract & tracking

- [ ] Interaction store records watched segments and the intent behind each pause, not just raw events
- [ ] xAPI Video Profile verbs emitted: played, paused, seeked, initialized, completed, terminated
- [ ] Completion computed from played-segments vs the threshold — never the playhead at the end
- [ ] Statements debounced (seek storms) and batched so none are lost on tab close

C. LMS standards boundary

- [ ] Boundary standard chosen by sales model: LTI 1.3 (embedded), cmi5 (packaged), or own LRS (standalone)
- [ ] Grade passback path confirmed: LTI AGS line items or cmi5 passed/failed/completed
- [ ] Vendor SDK standards export (xAPI / cmi5 / LTI) verified BEFORE signing
- [ ] SCORM used only where a buyer's legacy LMS requires it

D. Accessibility & analytics

- [ ] Overlay controls keyboard-operable (WCAG 2.1 SC 2.1.1) and captions present (SC 1.2.2)
- [ ] Analytics reads the LRS for drop-off, re-watch, and per-question correctness
- [ ] Maintenance budgeted at 25-30% of build cost per year



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This checklist pressure-tests the seven subsystems, the data contract and the LMS standards boundary. Our seven-volume handbook covers the whole video stack these subsystems sit on; start with Volume 3 for delivery, CDNs and players, then Volume 1 for the encoding ladder and Volume 4 for captions and audio.

WHAT YOU WILL FIND INSIDE

- CDN delivery, ABR and player architecture (Vol. 3)
- Captions and accessible audio (Vol. 4)
- Encoding ladders for lesson libraries (Vol. 1)

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Vol. 3 · Video Streaming II — ABR, CDNs, players, WebRTC, DRM and the economics of delivery
Vol. 4 · Audio for Video I — PCM, codecs, loudness, accessibility, real-time voice processing
Vol. 5 · Audio for Video II — jitter buffers, lip sync, Atmos, quality metrics, neural codecs
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