

Learning-Video Platform Architecture Blueprint

The nine layers, the standard each speaks, and the failure mode to watch. Decide build vs buy layer by layer.

Layer	Does	Standard	Failure to watch
1 Authoring	Make the course	Output format (SCORM/native)	Format chosen before data needs
2 Content store	Hold the files	LCMS / object store	One master, no renditions
3 Delivery	Video to the screen	HLS · DASH · WebRTC · CDN	Live and VOD as one pipeline
4 Interactive player	Watching becomes learning	(emits the events)	Plays but emits no events
5 Tracking	Events become records	SCORM · xAPI · cmi5	Rich video on plain SCORM
6 LMS / LRS	System of record	LMS · LRS (xAPI)	Stock LMS, no video analytics
7 Assessment	Prove it happened	Open Badges · W3C VC	Editable-PDF credentials
8 Analytics	Records become insight	(your definitions)	Watched = completed = learned
9 Reporting	Close the loop	LTI 1.3 Advantage	LTI treated as a password login

Wraps every layer:

Standards & accessibility: SCORM · xAPI · cmi5 · LTI · Open Badges 3.0 · W3C VC · WCAG 2.1 AA (1.2.2 / 1.2.4 / 1.2.5).

Rule of thumb

Commodities (delivery, storage) lean BUY. Differentiators (player, analytics) lean BUILD. Standards surfaces (LTI, SCORM, cmi5) are CONFORM, not invent. Match tracking to data before building the player.