Multi-DRM Workflow & Build-vs-Buy Worksheet

Scope your encrypt-once pipeline before you write packaging code or sign a DRM contract. One encrypted catalog serves all three systems; only the license differs per device. Engineering guidance; confirm vendor capabilities and prices live, they change.

1 · LOCK THE ENCRYPT-ONCE FOUNDATION

- ☐ **Standardize on cbcs** — the cbcs scheme of Common Encryption (ISO/IEC 23001-7). FairPlay requires it; modern Widevine + PlayReady accept it.
- ☐ **Package as CMAF** so one set of segments serves both HLS and DASH.
- ☐ **One encode, one asset** — never produce three per-DRM encodes.
- ☐ **cenc variant?** add ONE only for a cbcs-incapable legacy device tail — optional, not default.

2 · WIRE THE KEY HANDOFF (one packaging step)

- ☐ **Pick a DRM key provider** — a multi-DRM service or your own key server.
- ☐ **Exchange keys + signaling over CPIX** (DASH-IF), often via the SPEKE API.
- ☐ **Confirm packager is SPEKE/CPIX-compliant** — out-of-the-box, no custom glue.
- ☐ **Embed signaling** — KIDs and PSSH for Widevine/PlayReady/FairPlay in the manifests.

3 · SUPPLY THE THREE LICENSE ENDPOINTS

- ☐ **Player requests its license at playback** via Encrypted Media Extensions (EME).
- ☐ **Key systems:** com.widevine.alpha / com.microsoft.playready.recommendation / com.apple.fps.
- ☐ **Wire each endpoint** to the matching license server (WV / PR / FP).
- ☐ **Test on real devices** across all three ecosystems — not just Chrome.

4 · CHOOSE BUILD VS BUY (DRM layer)

- ☐ **Buy a multi-DRM service** — default for most; the vendor runs all three. Chosen: _____
- ☐ **Cloud packager + SPEKE key provider** — if already in a cloud media stack.
- ☐ **Self-host license servers** — only at very large scale + strict control + DRM team.

THE COST CHECK THAT KILLS THE 3× MYTH

Storage and encoding do NOT triple — one cbcs-encrypted, CMAF-packaged copy serves Widevine, PlayReady, and FairPlay. The license layer is a small per-event fee: a fraction of a cent to a few cents per license, or a flat monthly platform fee. Worked example: 100,000 subscribers × 30 plays/month = 3,000,000 license requests; at $0.0005/license that is about $1,500/month — a fraction of a percent of subscription revenue. If you find yourself encoding a title more than once for DRM reasons, stop: you built the wrong shape. Encrypt once, license many. Confirm current vendor rates; they change.



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This worksheet scopes an encrypt-once pipeline and the build-versus-buy choice for the DRM layer. Our seven-volume handbook covers the stack around it: Volume 3 for DRM, licence servers and delivery costs, Volume 2 for CMAF, HLS and DASH packaging, Volume 1 for encoding the single asset.

WHAT YOU WILL FIND INSIDE

- Encrypt-once packaging with CMAF and cbcs
- Multi-DRM services versus self-hosted servers
- Licence endpoints per device ecosystem
- The cost of licences versus storage

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