

# License Policy Quick Reference — the four levers

A license is a key PLUS a policy. The studio contract becomes a license-server rule becomes a field the device enforces. Set the four levers right and you pass a studio review without breaking playback on real devices. Engineering guidance; confirm vendor and device support live, it changes.

## 1 · THE FOUR LEVERS (what a license can say)

- TIME** — subscription = absolute expiry (short, renewed); rental = two clocks; purchase = no expiry (plan re-issue).
- OFFLINE** — a persistent license is a secret on disk; enable on purpose, keep durations short, require renewal.
- OUTPUT** — minimum HDCP on the cable to the display; protects the link, not the file.
- SECURITY** — minimum device level (L1/L3); caps the resolution the device may receive.

## 2 · THE TWO-CLOCK RENTAL

- Rental window** — time to START watching after purchase. Often 30 days.
- Playback window** — time to FINISH once you first press play. Often 24-48 h.
- The earlier deadline wins.** Start late and the full playback window still applies.
- Trusted clock required** — pair every expiry with a begin date to block clock-rollback.

## STUDIO-REVIEW READINESS — BEFORE YOU SIGN OR SHIP

Map every content tier to a policy template: which titles allow offline, what rental windows, which HDCP minimum, what security level for HD/4K, and whether forensic watermarking is required (MovieLabs ECP asks for hardware root of trust + HDCP 2.2 + watermarking on 4K/early-window content). Compose the policy on the server per request from three inputs — content rules x device capability x user entitlement — never in the player. Keep offline durations short and renewable; require a trusted clock for any expiry; build the purchase re-download path on day one; and fall back gracefully (lower resolution, lighter output rules) for the long tail of older devices instead of refusing to play. Confirm current vendor and device support; it changes.

## 3 · THE THREE-VENDOR FIELD MAP

- Widevine** — rental\_duration\_seconds + playback\_duration\_seconds; can\_persist for offline; OutputProtection.hdcp.
- PlayReady** — Begin Date + Expiration After First Play; Min Security Level 150/2000/3000; Output Control 100/250/270/300.
- FairPlay** — two keys: a storage (rental) key, then a playback key at first play that supersedes it.
- HLS manifest** — HDCP-LEVEL on EXT-X-STREAM-INF (TYPE-0/NONE in RFC 8216; TYPE-1 added in rfc8216bis).

## 4 · OUTPUT: HDCP VERSION -> RESOLUTION

- HDCP 1.4** -> Full HD (1080p). Old and widely supported.
- HDCP 2.2** -> 4K UHD. Required by MovieLabs ECP for 4K; HDCP Type 1 needs HDCP 2.1+.
- HDCP 2.3** -> higher resolutions, refreshed cryptography.
- Pitfall** — demanding 2.2 on every stream locks out older 1080p TVs. Match the version to the content tier.