

Offline Playback Readiness Checklist

Pre-launch checks for a download feature on a protected catalog. Engineering reference; vendor offline APIs and content-owner policy values change per version — confirm against current docs.

1 · THE LICENSE MODEL

- Encrypt once** — offline reuses the same cbc's Common Encryption files; no second encode.
- Persistent license** — choose the offline session type (EME persistent-license; FairPlay persistent key; Widevine keySetId).
- Fetch while online** — acquire and verify the license during the download; it cannot be fetched in airplane mode.
- License destruction** — persist a destruction record; delete/revoke on logout and expiry.

2 · THE TWO CLOCKS

- Storage window** — set how long the license lives after download (e.g. 30 days).
- Playback window** — set the max time after first play (e.g. 24-48 h); earlier deadline wins.
- Show the active clock** — '29 days left' before play, '47 h left' after first play.
- Renew gracefully** — handle expiry and re-download when the device is back online.

THE RULE — OFFLINE IS A SECOND PRODUCT, NOT A BUTTON

The media you download is the same cbc's-encrypted file you already stream; the new piece is a persistent license — a decryption key the device is allowed to keep — which you must acquire and verify while online, because it cannot be fetched in airplane mode. Two clocks then govern the download: a storage window counting from the download and a shorter playback window counting from first play, and the earlier deadline always wins. Almost everything the feature is allowed to do — whether a title can be downloaded at all, how long the windows run, how many devices may hold a copy, and the security level required for HD — is a content-owner rights decision expressed in that license, not an engineering choice. Default download quality to a standard rung so a season does not fill the phone, surface the clock that is actually counting, and plan a native app, because browser storage is best-effort and can be reclaimed. Re-verify Media3, AVFoundation/FairPlay, and PlayReady persistence behavior against current docs before you ship.

3 · STORAGE & DEVICE

- Quality choice** — offer standard vs high; default to the lower rung.
- Estimate footprint** — 1080p at 5 Mbps is ~2.25 GB/h; standard 720p ~250 MB/h.
- Smart downloads** — auto-fetch the next episode, auto-delete the watched one.
- Protected store** — keep media in a secure on-device store; exclude from cloud backup.

4 · CONTENT-OWNER RULES

- Offline allowed?** — confirm per title; it may be a patchwork, not a global toggle.
- Device & download caps** — enforce device counts (~2 standard / ~6 premium) and per-device limits (~100).
- Security level** — require hardware-backed DRM (Widevine L1 / Secure Enclave) for HD/4K; block rooted/jailbroken.
- Re-verify** — check vendor offline APIs and policy values against current docs before launch.