OTT Codec Strategy Worksheet

Choose your codec set before you commit a transcode pipeline: set an H.264 floor, add an AV1 (or HEVC) efficiency tier per device class, park VVC, then run the one egress sanity check. Engineering guidance — confirm codec licensing and device support live, they change.

1 · SET YOUR FLOOR (H.264 — the reach you never trade away)

- ☐ **Encode H.264 for every title.** It decodes on essentially every phone, tablet, laptop, TV, and set-top built in the last 15 years. A codec a device can't decode is a blank screen, not a slow stream.
- ☐ **Use it as the floor, not the workhorse.** H.264 is the least efficient of the four codecs — keep it for universal reach and as the live-streaming default, not to save bytes.
- ☐ **Note the cost.** H.264 licensing (Via LA) saw steep streaming-fee increases in 2025. Not free — but it is the price of guaranteed reach. Floor set? ___

2 · ADD AN EFFICIENCY TIER (AV1 first; HEVC where it fits)

- ☐ **AV1 is the 2026 default efficiency tier.** ~50% smaller than H.264, royalty-free (AOMedia), now hardware-decoded on most phones, smart TVs, and sticks sold since 2022. Serve it to devices that support it.
- ☐ **HEVC is the alternative tier.** Similar efficiency, strong on Apple and living-room devices, good for 4K/HDR — but fragmented, shifting patent licensing. Cheaper to encode than AV1.
- ☐ **Let the player choose.** Each device announces what it supports; hand back the most efficient codec on its list. No device is ever stranded. Tier picked: ___

3 · CHECK LICENSING & ENCODE COST (the two hidden levers)

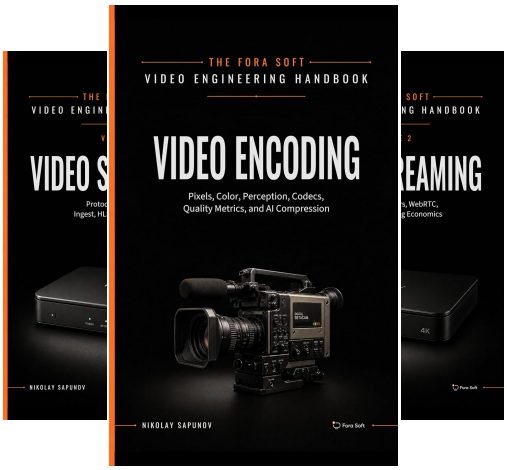
- ☐ **Licensing.** H.264 and HEVC carry patent-pool royalties (HEVC's pools are fragmented and moving in 2026). AV1 is royalty-free, with minor unresolved third-party claims. Budget for legal review.
- ☐ **Encode cost.** Newer = heavier. AV1 costs more compute than HEVC (SVT-AV1 narrows the gap); live AV1 needs hardware encoders. One-time per title, repaid by lower egress on every view.
- ☐ **Storage multiplies.** Every codec you add re-encodes and re-stores the whole catalog. Match the codec set to the devices and content you actually have.

4 · PARK VVC / H.266 (watch, don't deploy — for streaming)

- ☐ **Most efficient in the lab.** ~40–50% better than HEVC. If efficiency were the only lever, it would already win.
- ☐ **But not for streaming yet.** ~3× AV1's encode cost, no browser support, almost no streaming-device reach, and the most fragmented licensing of all four codecs.
- ☐ **Where it's moving:** broadcast and TV (Brazil TV 3.0, ATSC 3.0, Android 17). Revisit when browsers and a clear license arrive. VVC = watch item ___

THE ONE SANITY CHECK BEFORE YOU LOCK THE CODEC SET

Estimate the egress an efficiency tier saves. Egress = average delivered bitrate × watch-hours × audience, billed per GB. Worked: 10M monthly viewing hours at 3 Mbps (H.264) ≈ 13.5 PB ≈ $540k/mo at $0.04/GB. Move 60% of hours to AV1 at 40% lower bitrate (1.8 Mbps), keep 40% on H.264 → ~10.26M GB ≈ $410k/mo — about $130k saved every month (~24%), for a one-time encode-and-store cost. The saving grows as more devices gain AV1 hardware decode. Add efficiency without subtracting reach; tune the codec set to your real audience, not a default.



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This worksheet sets an H.264 floor, picks the AV1 or HEVC tier per device class and runs the egress check. We wrote seven volumes on the video stack, from encoding to delivery, audio and AI. Volume 1 covers H.264, HEVC and AV1 in depth; Volume 3 covers ABR ladders and delivery cost.

WHAT YOU WILL FIND INSIDE

- H.264, HEVC and AV1 encoder trade-offs
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- Egress savings from efficient codecs

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Deciding whether AV1 will pay back for your catalog?

We will model egress savings per codec tier on your real audience, set the device rules, and plan a transcode pipeline you can afford. 250+ video products shipped since 2005.

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