

Live Origin Sizing Checklist

What to confirm before signing off on a live-streaming origin architecture.

1 · Audience and reliability target

- ☐ Expected concurrent viewers at peak documented (today and +18 months).
- ☐ Average ABR ladder bitrate and top rendition (1080p / 4K) chosen.
- ☐ Uptime target stated as nines (99.9 / 99.95 / 99.99) and revenue impact of one outage minute estimated.
- ☐ Maximum tolerable recovery time for a single failure agreed with stakeholders.

3 · Encoder and ingest discipline

- ☐ Two encoders, both GPS / PTP / NTP locked to a common clock source.
- ☐ Identical segment length and GOP structure across both encoders.
- ☐ CMAF Ingest (DASH-IF Interface 1) or equivalent timeline-anchoring confirmed working.
- ☐ Contribution path tested under packet loss and jitter at production rates.

2 · Origin shape choice

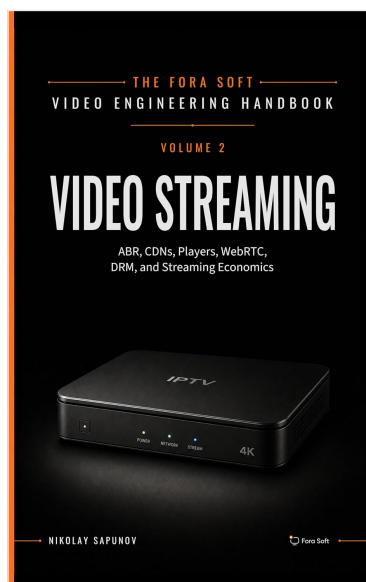
- ☐ Decision made between Shape 1 (single server), 2 (packager + origin), 3 (JIT cluster), 4 (cross-region).
- ☐ Shape sized against the higher of audience, reliability, and operational budget.
- ☐ Multi-channel needs (>10 concurrent channels) trigger Shape 3 by default.
- ☐ Revenue-per-minute above ~\$100/min triggers Shape 4 by default.

4 · Packager, origin, and cache

- ☐ Packager separated from origin (Shape 2 or higher).
- ☐ Origin sized for 10x steady-state request rate to survive cache-miss bursts.
- ☐ Manifest TTL and segment TTL set explicitly on the CDN — not relying on defaults.
- ☐ Origin shield in front of the origin enabled where the CDN supports it.

5 · Cross-region failover and operational runbook

- ☐ Secondary region deployed active-active, not active-passive — both regions consume their encoder pair continuously.
- ☐ CDN configured to interpret origin force-endpoint-error signals and switch origin per request, with player URL constant.
- ☐ Failover tested end-to-end at least once per quarter in a controlled exercise, not only during incidents.
- ☐ On-call runbook lists the symptoms that trigger origin failover, the dashboards to watch, and the rollback procedure.
- ☐ Post-incident review template prepared in advance — incidents do not need to be the time you draft one.



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This checklist confirms audience, origin shape, encoder discipline, caching and cross-region failover before you sign off on a live origin. Volume 3 continues from the origin outward: CDNs and caching, ABR ladders and rung selection, players and stall recovery, QoE monitoring, and the economics of delivery.

WHAT YOU WILL FIND INSIDE

- CDN caching and origin shielding
- ABR ladders and rung selection
- Player stall recovery and QoE monitoring
- Delivery cost per viewer

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Choosing an origin architecture for a 24/7 live channel or a big event?

We will pick the origin shape for your audience and uptime target, size it, and design cross-region failover. 250+ video products shipped since 2005.

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