

How Real Video Creator works

A technical view of the deployed system and the work still ahead.

This presentation focuses on the Real Video Creator architecture observed in a read-only September 24, 2026 VPS/source audit. Real Gamers is a separate native media effort, disclosed as a technical capability and possible future upsell: not a shipped RVC integration.

RVC Operating web, export and voice services in September snapshot	\$0 Confirmed paid subscriptions in October 21 founder report	~\$190/mo Founder-reported historical cash expense, excluding labor
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What was observed: and what was not.

Do not mistake implementation for production-scale proof.

Observed

Service state, nginx routing, systemd configuration, source excerpts, database backend, effective runtime flags.

Inspected designs

Project row locking, realtime authorization, private media delivery, credit reservation and payment webhook verification.

Not demonstrated

Independent pentest, sustained throughput/load profile, universal pass of detected tests, third-party attribution of creator revenue.

Product adoption

Account and export screenshots are dated samples; external activation, repeated use and paid conversion still need instrumentation.

A deployed web, data and worker architecture.

Explicit separation of interactive requests, realtime collaboration and media jobs.

Request layer

nginx/TLS → Gunicorn/Django HTTP application; Daphne/Channels for Studio WebSockets.

State + queues

PostgreSQL for app and transaction state; Redis for Channels and background task transport.

Render pipeline

Celery Studio export queue, FFmpeg/FFprobe render/validation, private media delivery.

Voice / video

video generation worker, separate CPU preprocessing and GPU voice inference/generation queues; recovery scheduler.

Commerce

PayPal live billing integration, subscriptions, credit reservations and ledger records.

Operations

Systemd-managed services and retention timers; shared host with other projects.

From authorized project to validated export.

Features are meaningful when the state transitions are correct.

Project access

Authenticated workspace/project lookup and project revision checks.

Concurrent edits

Row-lock and expected-revision strategy for HTTP/WebSocket saves; stale revision returns a conflict.

Upload boundaries

Size limits, media type/signature/probe validation, SHA-256 and private delivery.

Render validation

FFmpeg argument arrays without observed shell invocation; stream/container validation post-export.

Realtime edits have an authority path.

Access is rechecked when saving, not only at socket connection.

Authenticate

Daphne/Channels connection requires an authenticated user.

Authorize

Project is scoped through the workspace-visible project query.

Serialize

Transaction and database row lock guard state updates.

Version

Expected revision, operation count, payload size and cursor bounds are validated.

Broadcast

Messages are distributed through Redis Channels layer.

Voice processing is a recoverable job lifecycle.

CPU preprocessing, GPU generation and scheduler have distinct roles.

Prepare

Enrollment/reference preprocessing with consent/version checks.

Generate

GPU-backed Chatterbox voice processing and recorded outputs.

Recover

Stale-job detection, requeue logic and bounded attempts.

Deliver

Private output/project asset handling; failure states kept in the job record.

Dedicated workers reduce coupling: not host risk.

Production services were observed on a shared multi-application VPS.

Public tier

Gunicorn :8010 and Daphne :8011 bound to loopback behind nginx.

Media tier

video generation worker, Studio export worker, voice CPU, voice GPU and recovery scheduler.

Scheduling

Support maintenance and backup/retention timers.

Hardening reality

Worker units had stronger systemd sandboxing than Gunicorn/Daphne; resource limits were not configured.

Security work is visible in the implementation.

Observed controls are encouraging; an audit is not a certificate.

Private files

Actual existing private-media file requests returned HTTP 404 on both production and staging hostnames.

Billing integrity

PayPal signature-verification path, idempotent webhook handling, transactional reservation and refund logic.

Upload boundary

File signature checks, probed media formats, private project asset streams and bounded message/state sizes.

Access control

Project user scope, realtime write re-authorization and owner-controlled paid-generation approvals.

What the test inventory tells us

The source contains substantial automated testing. A full passing run was not captured in these audits.

774

RVC detected test functions across major Django app domains

357

Real Gamers detected tests in the separate static audit

RVC topics

Payments, promotions, concurrency, project revision, uploads, voice state recovery and support rate limiting.

Native topics

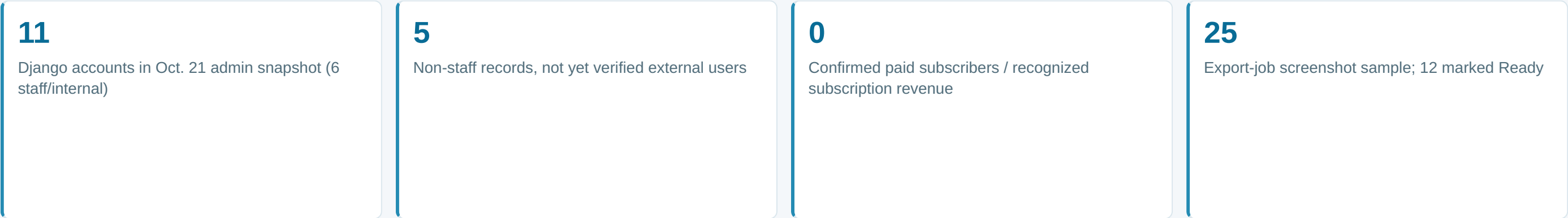
GPU mailbox, AV timing, H.264 queue behavior, recording recovery, replay and RTMP transport.

Audit boundary

Neither September audit captured execution of every detected test. An executed, timestamped test report is the next diligence artifact.

What we know about product use

The current product records do not yet show independent adoption at scale.



Next instrumentation

Independent registration, first usable export, recurring weekly creators and cohort retention.

Next validation

Completed real checkout, paid customer interviews, net revenue and per-export compute margin.

Real Gamers, a separate desktop system

Native capture and streaming work is a future option, not an RVC feature today.

Capture + GPU

Rust/Tauri, D3D11/DXGI capture, frame mailbox and compositor.

Audio + encoding

WASAPI, timing/mixing, Media Foundation H.264/AAC.

Distribution

Custom RTMP/RTMPS transport, MKV recording/recovery, replay and remux.

Current gaps

Replay memory pressure, unbounded queues, WebView CSP and local-service hardening were flagged.

Findings that deserve follow-up

Specific engineering work identified in the September review.

Trust boundary

Shared writable voice-runtime files under the web-tier identity weakened separation.

Resource limits

High-load media services lacked effective systemd memory/CPU quotas.

Service sandbox

Public Unicorn/Daphne had weaker sandbox settings than voice/export workers.

Staging isolation

Production and staging hostnames shared the same app process and live payment runtime.

Technical priorities for the coming year

Current controls should be measured, retested and strengthened as use grows.

Q1 : instrument

Independent user classification, first-export funnel, stable tracking and dated executed test reports.

Q2 : activate

Reduce time-to-export, introduce external reviewer, prioritized sandbox/resource hardening.

Q3 : repeat

Retained creators, compute cost per export, recovery and workload profiling.

Q4 : prove

Subscription conversion, churn, acquisition unit economics and operational continuity runbooks.

Review the system and its limits

Architecture, source and dated records can be shared for diligence.

We can review architecture, dated audit reports, redacted test output, a guided product demo and measurement plans. Outside technical review, production load metrics and external customer cohorts remain part of the financing work.

Investor deck

Contact founder