

TECHNICAL BRIEFING PAPER

Subject: California Assembly Bill 1921 (Protect Our Games Act)

Topic: Infrastructure Cost Reality & Parameterization

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Independent Infrastructure Assessment: Legacy Game Preservation Costs Under California AB 1921

1. Executive Summary & Core Premise

The legal opposition to California Assembly Bill 1921 (the Protect Our Games Act) relies on a central premise: that requiring digital game operators to maintain "ordinary use" or facilitate continued access to a game post-sunset will saddle publishers with perpetual, financially crippling infrastructure liabilities. An objective infrastructure audit reveals this argument to be a technical falsehood. The industry intentionally conflates the massive computing resource requirements of a *commercial live-service peak lifecycle* with the miniscule structural footprint required to sustain an *end-of-life (EOL) legacy environment*.

During a game's active commercial lifecycle, a publisher maintains dense, low-latency, globally distributed compute structures to maximize player retention, handle real-time microtransactions, manage massive databases, and run invasive telemetry analytics. Once a game enters preservation status—serving anywhere from a dozen localized hobbyists to low tens of thousands of legacy users—the operational requirements radically drop. The technical architecture transitions from complex real-time computational hosting to a basic, low-priority directory system resembling old-world telephony network signaling.

Furthermore, AB 1921 does not legally mandate centralized corporate hosting. As noted by the Assembly Committee on Privacy and Consumer Protection:

"This bill requires user notifications before the end of server support and ensures that paid users walk away with either a playable version of the game or a refund once services cease."

By providing an end-of-life patch that allows peer-to-peer (P2P) networking or releases local dedicated server binaries, publishers can reduce their operational infrastructure costs to exactly zero dollars, pushing all resource burdens onto the community itself.

2. Infrastructure Cost Projection Models

To parameterize the actual cost risks for lawmakers, this section presents baseline financial projections across a wide spectrum of user loads under a "low-to-medium demand scenario." This assumes a worst-case baseline where a publisher chooses to retain a bare-minimum centralized matchmaking directory rather than releasing a clean P2P or offline patch.

Traffic & Protocol Profile

- **Signaling/Authentication Traffic:** Low-priority TCP/UDP handshakes, heartbeat packets, text-based matchmaking queues, and light data arrays (typically less than 2 KB per handshake).
- **Blob Data Transit:** Occasional large binary downloads (patches, updates, or map data) throttled outside peak operational hours.
- **Peak Bandwidth Scaling:** Modeled on telephony principles (Erlang distribution), calculating that only a small fraction of the total registered user base transmits high-priority data simultaneously.

Bracket A: Micro Preservation Environment (10 to 100 Active Users)

Target Audience: Highly niche legacy titles, cult classics, or early indie games.

- **Compute Infrastructure:** A single Virtual Private Server (VPS) or a minimal cloud slice (1 vCPU, 2GB RAM).
- **Power Requirements:** Negligible share of a shared public data center blade (less than 50 Watts equivalent).
- **Bandwidth Overhead:** Sub-10 Mbps continuous line; total data allocation less than 500 GB/month.
- **Estimated Hardware Maintenance:** \$5.00 – \$15.00 / month
- **Estimated Administrative Oversight:** \$0.00 / month (fully automated cron scripts for authentication).

Bracket B: Medium Legacy Environment (1,000 to 5,000 Active Users)

Target Audience: Standard AA titles or older multiplayer games with an enduring, organized community.

- **Compute Infrastructure:** Two redundant virtual server nodes or one low-tier dedicated 1U rack server.
- **Power Requirements:** Approximately 150 to 300 Watts continuous.
- **Bandwidth Overhead:** 50 Mbps base traffic with a 1 Gbps burst pipe for occasional binary asset distribution.
- **Estimated Hardware Maintenance:** \$80.00 – \$250.00 / month
- **Estimated Administrative Oversight:** \$50.00 / month (automated security logging, quarterly reboot checks).

Bracket C: Upper-Tier Low-Demand Environment (10,000 to 30,000 Active Users)

Target Audience: Major AAA titles that have officially been discontinued but retain large, distributed communities worldwide.

- **Compute Infrastructure:** A small, localized cluster composed of 2 to 4 standardized physical servers (or equivalent containerized cloud compute) handling global region handshakes.
- **Power Requirements:** Less than 1.5 kW to 3 kW continuous.
- **Bandwidth Overhead:** 100 Mbps to 250 Mbps base traffic; optimized via content delivery networks (CDNs) for major asset blobs.
- **Estimated Hardware Maintenance:** \$400.00 – \$1,200.00 / month
- **Estimated Administrative Oversight:** \$200.00 / month (minor software updates, basic automated DDOS filtering).

3. Comparative Cost-Benefit Analysis Matrix

Operational Parameter	Commercial Live-Service State (Peak Lifecycle)	AB 1921 Compliant Preservation State (Worst-Case Centralized)	AB 1921 Compliant Preservation State (Best-Case Autonomous)
Compute Architecture	Globally distributed hyperscale dynamic instances (AWS/Azure).	Minimal static VPS or single 1U hardware slice.	None required by corporate operator. Handled by client hardware.
Primary Data Payload	Constant live telemetry, multi-gigabyte daily log streams, continuous game state syncing.	Simple text-based authentication strings, directory listings, matchmaking tokens.	Local network handshakes or direct P2P connections via user IP routing.
Cooling & Real Estate	High-density liquid or advanced evaporative industrial HVAC infrastructure.	Standard ambient air cooling within standard multi-tenant server facilities.	None. Handled by consumer desktop cooling setups.
Resource Costs (Water/Power)	Up to 25,000 gal/day and several megawatts per high-density cluster.	Equivalent to a single commercial office copy machine (less than 3 kW).	Zero corporate utility draw. Distributed seamlessly across thousands of home grids.
Total Operator Cost Multiplier	100% Full OpEx Scale (\$10k - \$100k+ / month)	Less than 1% of Active Lifecycle Cost (\$50 - \$1,200 / month)	0% Cost Absolute (\$0 / month indefinitely)

4. Findings & Parameterization for Lawmakers

The technical investigation into game preservation costs disproves the industry's primary defense against AB 1921. Video game publishers argue via industry groups like the Entertainment Software Association (ESA) that a legal requirement to keep games playable puts them in an "impossible situation" that "keeps games alive long after their natural lifecycle, draining resources." In reality, the physical resource math proves that the "infrastructure cost" argument is a manufactured scare tactic.

When stripped of profit-maximizing telemetry, anti-cheat kernel systems, ad-tracking stacks, and live database streaming, the pure infrastructure necessary to keep a game operational is remarkably tiny. A classic online game requires less computing power and data transit than a standard small-business VOIP phone directory.

Furthermore, because publishers can fully satisfy AB 1921 by dropping a final end-of-life patch that shifts matchmaking to P2P architectures or releases dedicated server binaries to the public, any long-term hosting cost is completely optional. If a publisher chooses to incur ongoing costs, they do so by choice—not by technological or legal necessity. The "ruinous cost risk" does not exist.

5. References & Source Context

1. California Assembly Bill 1921 official text (Chapter 6.8, Digital Goods Access Protections).
2. Legislative analysis reports from the Assembly Committee on Privacy and Consumer Protection.
3. Framework guidelines derived from: *Stop Killing Games: The Case Against Deletion* (gbamfs.org/post/stop-killing-games-the-case-against-deletion).
4. Public committee testimony transcripts and community infrastructure datasets compiled under r/StopKillingGames.
5. Expert Witness / Technical Consultation: Shannon, Van. Chief of Sustainable Engineering, Gaming Brethren Advocates (GBAMFS). Architectural baseline assessments, thermodynamic optimization modeling, and critical infrastructure data parameters for legacy software environments (2026).