

# Aesthetic Computer — Stack Knowledge

DevOps map: hosts, data, edge, deps, vendors & costs

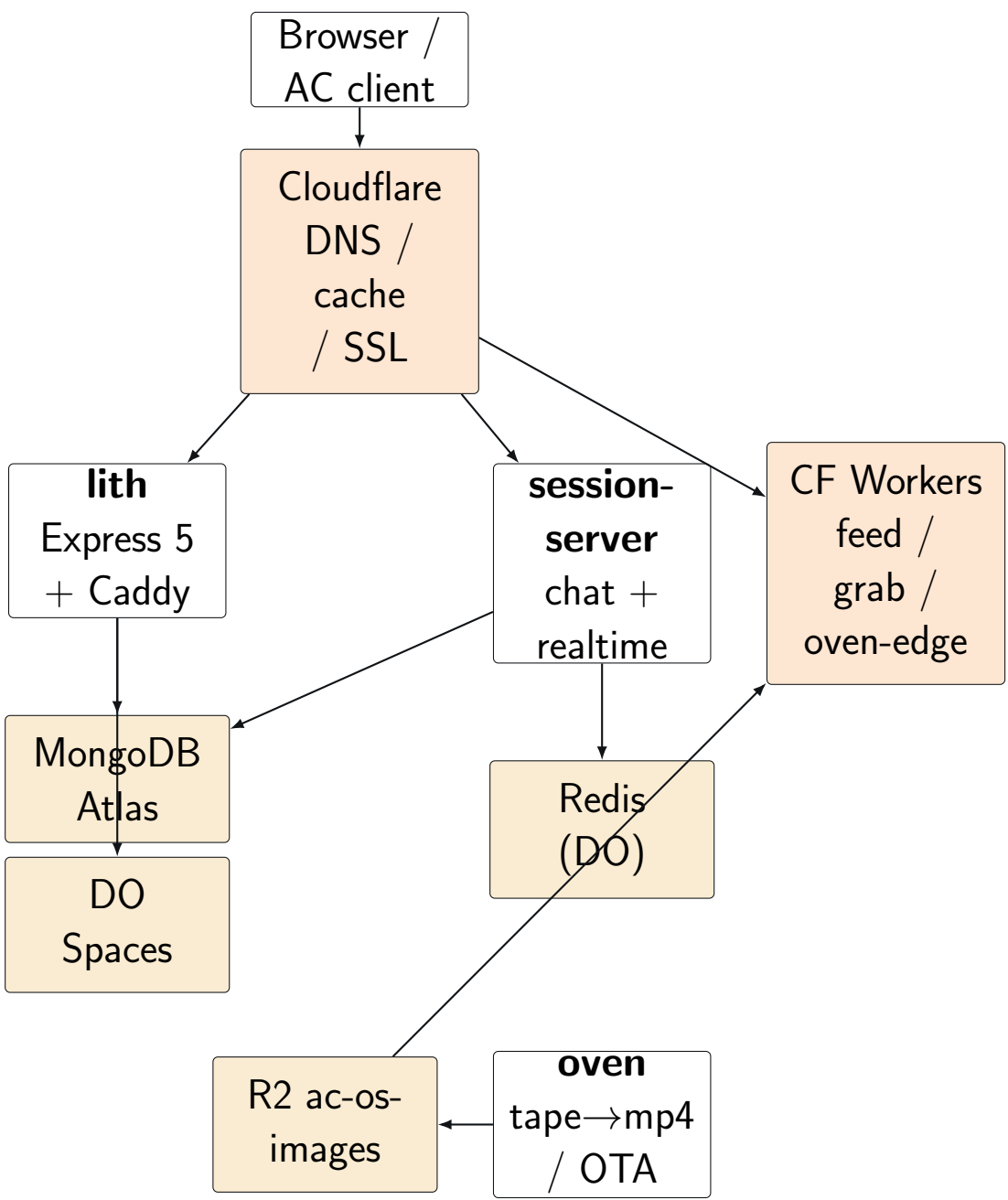
assembled 2026-07-15 from the monorepo (knot: aesthetic.computer/core) | only the **green** cost is documented in-repo; the rest need owner input

## Compute hosts

| host                                                                          | provider                                 | role                                                                                                                | deploy                                                       |
|-------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>lith</b><br>lith.aesthetic.computer<br>209.38.133.33                       | <b>DO</b><br>2vcpu-4gb, sfo3             | Production web: Express 5 + Caddy monolith. All /api, runtime .mjs, KidLisp, notepat build, knot↔GitHub mirror      | fish lith/deploy.fish<br>systemd lith.service<br>(MemMax 3G) |
| <b>session-server</b><br>session-server.aesthetic.computer<br>157.245.134.225 | <b>DO</b><br>\$7/mo<br>1vcpu-1gb, nyc1   | Chat + single shared realtime room (Geckos WS+UDP). Loads chat history on boot (~45s). Tiny 1GB box ⇒ mem-sensitive | fish session-server/deploy.fish<br>systemd, node 20.17 (fmm) |
| <b>oven</b><br>oven.aesthetic.computer<br>157.245.134.225                     | <b>DO</b><br>\$10/mo<br>8vcpu-16gb, sfo3 | Tape→MP4 (ffmpeg/Sharp); AC Native OS OTA builds; git pollers                                                       | fish oven/deploy.fish<br>systemd oven.service                |
| <b>dp1-feed</b> (Go)                                                          | same lith host                           | DP-1 Feed API, Go + Postgres, 127.0.0.1:8787                                                                        | systemd dp1-feed.service                                     |

**Note:** Jamsocket (per-piece spawned backends) is **deprecated** — realtime is now the single droplet. Code refs still linger in session-server.

## Architecture



**git:** knot (git@knot.aesthetic.computer/core, what lith pulls) ↔ GitHub mirror (whistlegraph/aesthetic-computer), synced every 60s by ac-mirror.timer on lith.

## Outdated (system & session-server)

| system/ — major bumps available                                          |                         |                           |
|--------------------------------------------------------------------------|-------------------------|---------------------------|
| package                                                                  | current                 | latest                    |
| redis                                                                    | 5.10.0                  | 6.1.0                     |
| got                                                                      | 14.6.4                  | 15.1.0                    |
| gotrue-js                                                                | 0.9.29                  | 1.0.1                     |
| nanoid                                                                   | 5.1.6                   | 6.0.0                     |
| adm-zip                                                                  | 0.5.16                  | 0.6.0                     |
| gcp-metadata                                                             | 7.0.1                   | 8.1.3                     |
| typescript (dev)                                                         | 5.9.3                   | 7.0.2                     |
| <i>minor:</i> aws-sdk 3.1020→3.1087, openai 6.46→6.47, three 0.182→0.185 |                         |                           |
| session-server/ — intentionally pinned                                   |                         |                           |
| package                                                                  | state                   | why                       |
| geoup-lite                                                               | held 1.4.10             | 2.x needs Node ≥24        |
| ws                                                                       | held 8.21.0             | 8.21.1 too new (cooldown) |
| redis                                                                    | <b>reverted to 4.7</b>  | 6.x broke prod (see plan) |
| mongodb                                                                  | <b>reverted to 6.20</b> | bundled w/ redis revert   |

## Data stores

| store               | where                  | holds                                 |
|---------------------|------------------------|---------------------------------------|
| <b>MongoDB</b>      | Atlas (...qencn...)    | users, handles, chat, moods, builds   |
| <b>Redis</b>        | <b>DO</b> sfo3         | Managed, session / realtime state     |
| Postgres            | local to dp1-feed host | DP-1 feed (Go)                        |
| DO Spaces           | <b>DO</b>              | asset CDN: art, tapes, wand, amxd     |
| <b>Firebase</b>     | Google                 | auth, push messaging                  |
| CF KV / R2 / Queues | <b>Cloudflare</b>      | feed KV, ac-os-images R2, write queue |

## Projects & runtimes

| project        | runtime                       | deploys to              |
|----------------|-------------------------------|-------------------------|
| system         | Node                          | lith (Express+Caddy)    |
| session-server | Node 20                       | DO droplet (systemd)    |
| lith           | Node ESM (express 5)          | the monolith itself     |
| oven           | Node ≥20 (express 4)          | oven droplet            |
| dp1-feed       | Cloudflare Worker + Go        | wrangler / systemd      |
| grab           | CF Worker (Browser Rendering) | grab.aesthetic.computer |
| oven-edge      | CF Worker + R2                | os.aesthetic.computer   |

## Vendors & costs

| vendor / use                                                                                             | billing                | cost               |
|----------------------------------------------------------------------------------------------------------|------------------------|--------------------|
| <b>DO</b> Droplet — lith host                                                                            | subscription           | <b>\$24/mo</b>     |
| <b>DO</b> Droplet — session-server                                                                       | subscription           | <b>\$7/mo</b>      |
| <b>DO</b> Droplet — (8vcpu/16gb)                                                                         | subscription           | <b>\$96/mo</b>     |
| <b>DO</b> Droplet — lite                                                                                 | subscription           | <b>\$96/mo</b>     |
| <b>DO</b> Droplets — silo, help                                                                          | at, subscription       | <b>\$24 ea</b>     |
| <b>DO</b> Droplet — legacy-2016                                                                          | subscription           | <b>\$12/mo</b>     |
| <b>DO</b> Spaces — CDN (11 keys)                                                                         | asset storage + egress | on invoice         |
| <b>Valkey 8</b> — aged, sfo3                                                                             | man- subscription      | <b>~\$15/mo</b>    |
| <b>DO total ≈\$330/mo</b> and <b>climbing</b> — invoices Mar \$189 → Jun \$259.54; Jul \$172 by the 15th |                        |                    |
| <b>MongoDB</b> — Atlas                                                                                   | subscription / usage   | <i>needs input</i> |

## Mac fleet & hardware