

GOOGLE CLOUD · GEMINI ENTERPRISE AGENT PLATFORM

More or Less.

Architecture Brief — Snaptapp's first title

A real-time multiplayer trivia game where every generated answer is **grounded in Google Search**, calibrated by a **deterministic math kernel**, and audited before it reaches the table.

10 PLAYERS PER ROOM	<2 s GENERATED ROUND	0.0% ANSWER-LEAK GATE	7 METRICS BEFORE PROMOTION
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THE SHORT VERSION

8 facts

- ◆ **One call per round.** Players decide whether the true figure is higher or lower than a believable decoy before the 60-second match clock expires.
- ◆ **Grounded by default.** Custom topics call Gemini 3.5 Flash Lite with mandatory Google Search grounding; curated rounds serve from a verified fact bank.
- ◆ **Receipts, not promises.** Every generated round carries a `grounding_receipt` recording its web queries and support spans.
- ◆ **The model never picks the decoy.** DDM-4, a deterministic kernel shared by Go and TypeScript, derives every distractor number.
- ◆ **Audited before promotion.** Gemini 3.8 Flash cross-checks claims against primary sources; a 7-metric, 0.0% redline gate admits facts to Firestore.
- ◆ **Disputes get a referee.** The Fact Ombudsman runs adversarial Search checks on Cloud Run and evicts debunked facts in real time.
- ◆ **Fine-tuned on its own facts.** Audited facts export into Gemini SFT corpora and Gemma 2 9B LoRA adapters.
- ◆ **Two ways to play.** Solitaire runs offline and client-authoritative; Arena seats up to 100 entrants on server-authoritative Durable Objects.

LIVE

moreorless.snaptapp.us

Play as a guest — no account required.

STUDIO

LEGAL ENTITY

Snaptapp LLC · Washington LLC

FOUNDED

2026 · Spokane, Washington

JURISDICTION

Washington, United States

CONTACT

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PRODUCT

TITLE

More or Less · live on web

PLATFORMS

Web now · iOS & Android in development

PLAYERS

Solo · up to 100 in Arena

PRICE

Free to play · 2 live modes

PLATFORM

CLOUD

Google Cloud · `more-or-less-505908`

AI PLATFORM

Gemini Enterprise Agent Platform

MODELS

Gemini 3.5 Flash Lite · Gemini 3.8 Flash · Gemma 2 9B

GROUNDING

Google Search · mandatory on generated rounds

GUARDRAILS

DDM-4 math kernel · 7-metric gate

RUNTIME

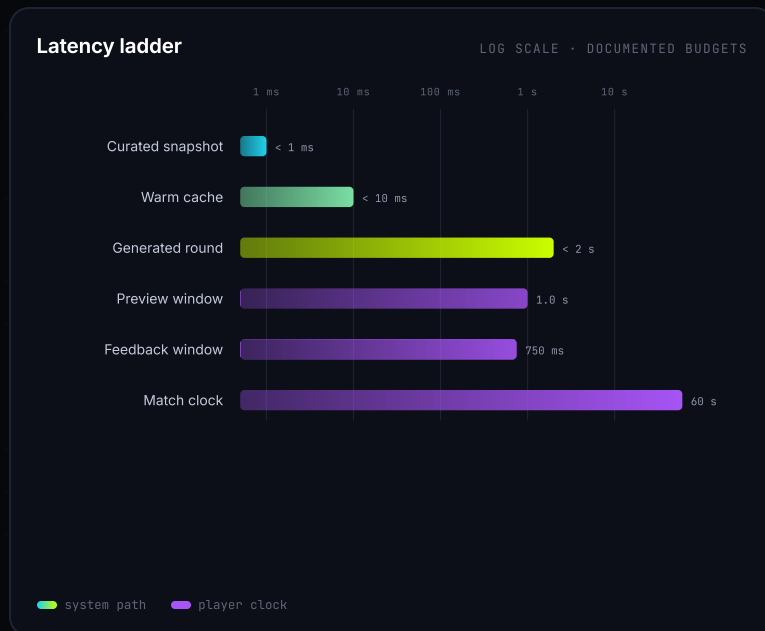
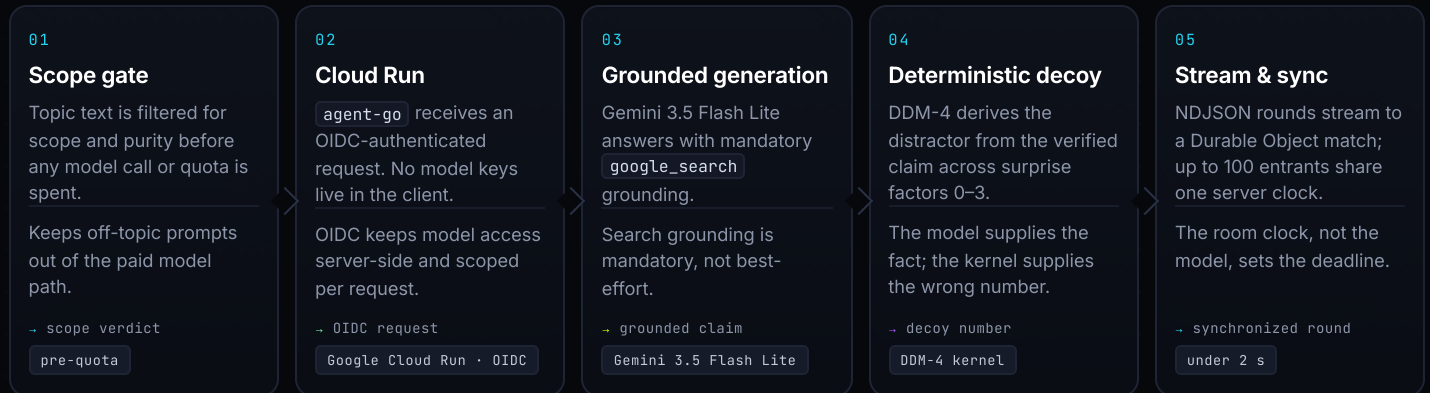
Cloud Run (Go) · Cloud Firestore · Firebase



01 THE HOT PATH

Anatomy of a grounded round

From typed topic to synchronized answer in under two seconds — with a chain of custody a partner can audit. Nothing about the number is left to the model.



Inside the receipt PER GENERATED ROUND

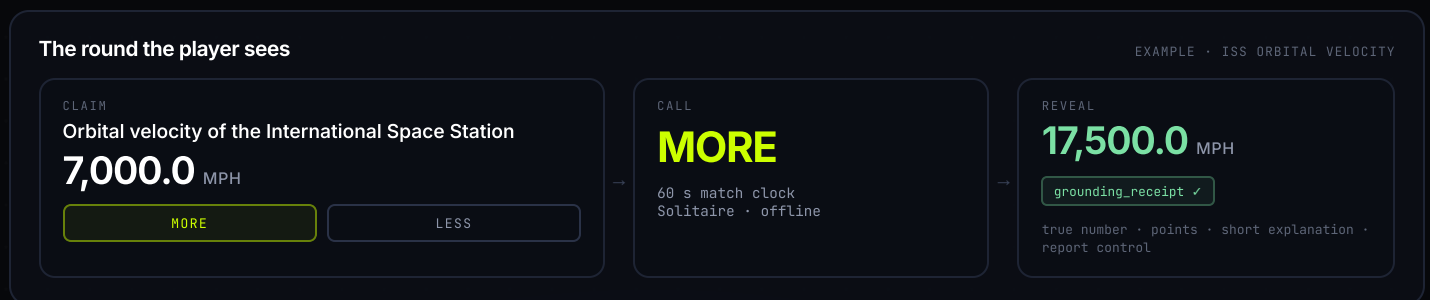
telemetry

grounding_receipt

- ✓ Model and grounding tool recorded
- ✓ Every web query retained
- ✓ Support spans mapped to the claim
- ✓ Decoy hash tied to the verified number
- ✓ Emitted before the round is served

MODEL	gemin-3.5-flash-lite
TOOL	google_search
GUARD	DDM-4 · SHA-256 digest

No receipt, no round. · auditable downstream



02 COLD PATH

The fact supply chain

Discovery runs offline and feeds the hot path. A claim reaches a player only after it survives verification, calibration, and the promotion gate.

- 01 **Crawl**
Gemini 3.8 Flash expands a subject into candidate numeric claims and their sources.
- 02 **Verify**
Each claim is cross-checked against primary web sources with Google Search grounding.
- 03 **Classify**
Quantity kinds are resolved so units compare correctly before any distractor exists.
- 04 **Calibrate**
DDM-4 precomputes decoy sweeps across surprise factors `0-3` for every fact.
- 05 **Gate**
Seven metrics, zero tolerance: **0.0% redline** and **0.0% answer-leak**.
- 06 **Promote**
Facts move `pending` → `active` in Cloud Firestore, ready for the edge snapshot.

Model allocation	GEMINI ENTERPRISE AGENT PLATFORM			
	3.5 FLASH LITE	3.8 FLASH	GEMMA 2 9B	GOOGLE SEARCH
WORKLOAD				
Live pack generation	●	●	●	●
Fact Foundry audit	●	●	●	●
Dispute referee	●	●	●	●
Ops copilots	●	●	●	●
SFT & adapters	●	●	●	●
● active role · ● not used on that workload				

PROMOTION GATE

7

metrics in the gate

0.0%

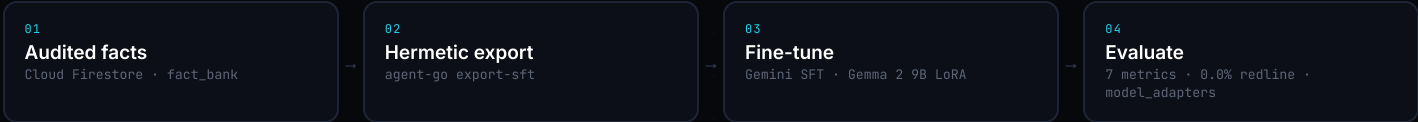
redline rate

0.0%

answer-leak rate

`pending` → `active` · one bad metric keeps a fact out

CLOSED-LOOP FINE-TUNING





03 THE PRODUCT

Two ways to play, one verified fact bank

Same grounded round format, two different pressures. Solitaire serves a qualified offline snapshot deck; Arena deals every entrant the same frozen deck.

Solitaire

OFFLINE

A solo speed-run drawn from a 200-question offline snapshot deck generated by DDM-4. Client-authoritative, no matchmaker, and a skipped question never comes back.

60 s · self-paced · Top 10 on device

Arena

UP TO 100

One frozen deck for every entrant, each playing at their own pace over WebSockets. A lobby opens 20 seconds after the first human joins, and seeded bots fill a thin room to eight.

60 s server clock · up to 100 entrants

Scoring

LAUNCHSCORE

A correct answer scores up to 1,000, losing a point for every 10 ms past the first second. A wrong answer costs 500; a skip or an unanswered round scores 0.

max 1,000 · wrong -500 · skip 0

Standings

ARENA

Ranked by score, then by total answer time, then by entrant ID. Every result is verified server-side before it is stored.

score · answer time · entrant ID

Match clock

60 seconds, both modes



MATCH
seconds



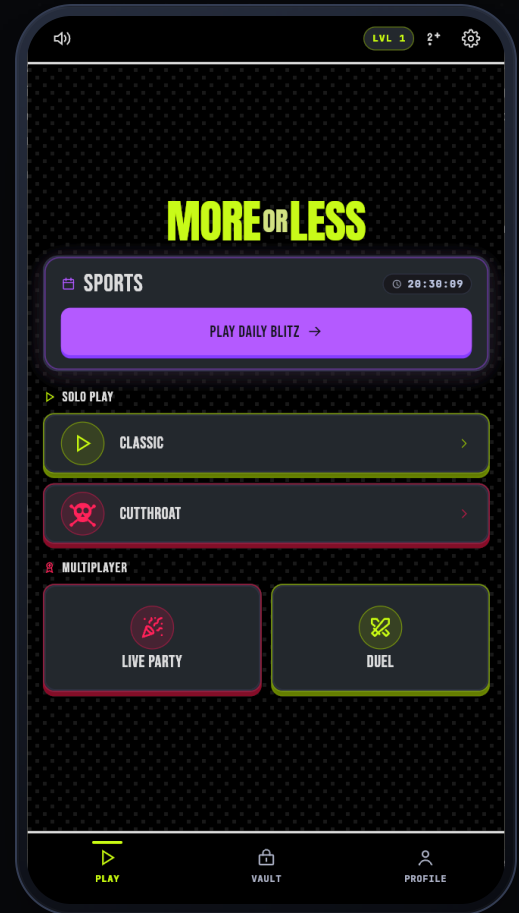
PREVIEW
seconds



FEEDBACK
seconds

CUSTOM TOPICS

Type any subject. It is filtered for scope, generated on demand, and cached for other players who enter the same topic.



More or Less · web client

100

entrants per Arena match
server-authoritative



Arena Mode

Up to 100 entrants share one frozen deck and one server clock. Match state lives in Durable Objects and is verified before it is stored.

20 s lobby · bots fill to 8

One decision. Two buttons.

A verifiable answer every time.

MORE OR LESS
60 S MATCH CLOCK · 1.0 S PREVIEW · 750 MS FEEDBACK

WEB LIVE

IOS IN DEVELOPMENT

ANDROID IN DEVELOPMENT

FREE TO PLAY

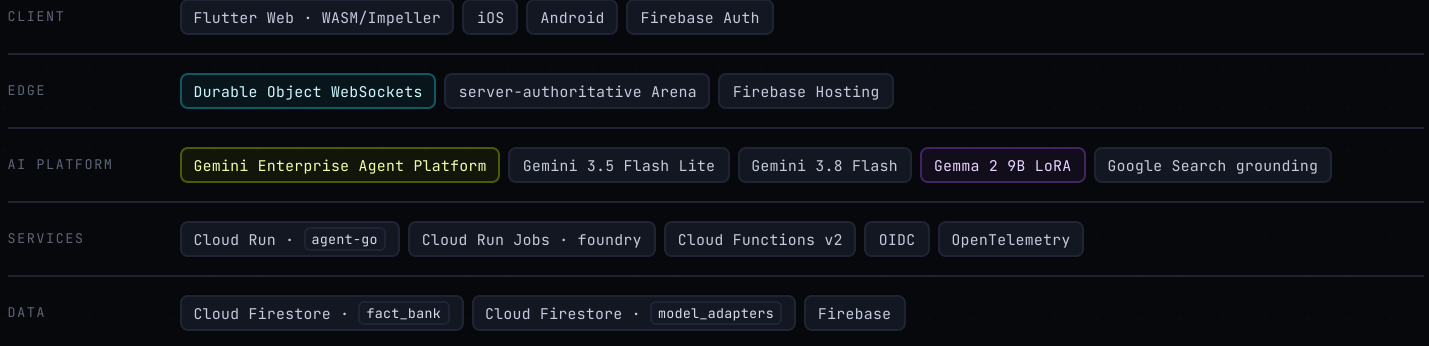
04 INFRASTRUCTURE

What we run on

Serverless by default, grounded by design. Managed Google Cloud and Firebase services keep a small studio operating globally with predictable economics.

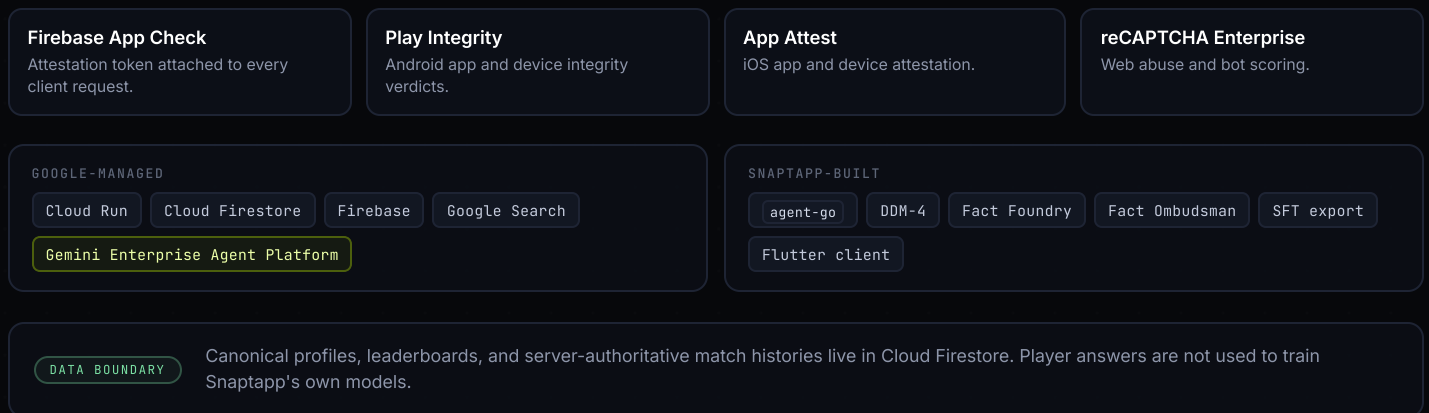
Google Cloud services in production

PROJECT MORE-OR-LESS-505908



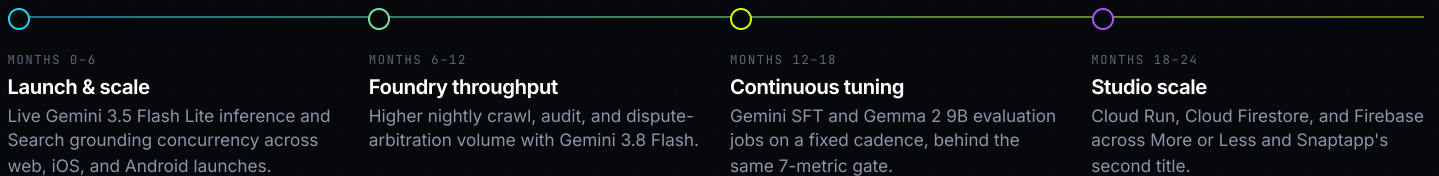
Security posture

ATTESTATION ON EVERY CLIENT PATH



24-month Google Cloud credit plan

FOUR PHASES · ONE STUDIO PIPELINE



Reviewing the stack for a partnership or the Google for Startups Cloud Program?

The production project is more-or-less-505908. Happy to walk through any layer of the pipeline.

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SCAN FOR THE PRODUCT
PAGE
snaptapp.us/products