

AI CALLING PLATFORM - BUILD PLAN

Phase-by-Phase *Breakdown*

Coding complexity + rate-limit risk rating
for every phase of the build

What We're *Building*

- **AI Call Engine** — Vapi.ai or Retell.ai (wrapper only, not built from scratch)
- **Lead & Campaign Manager** — CSV upload, segmentation, scheduling
- **Script / Prompt Builder** — Branching logic stored as JSON
- **Call Results Dashboard** — Analytics, transcripts, performance tracking
- **Queue System** — BullMQ + Redis for safe, rate-limited call scheduling

TECH STACK

Next.js · Tailwind CSS · Node.js · PostgreSQL + Prisma · BullMQ + Redis
· Vapi.ai / Retell.ai · Vercel + Railway

THE GOLDEN RULE

We DO NOT build the AI call engine from scratch. We build the wrapper platform around it. This cuts the complexity in half.

BUILD STRATEGY

Phase by phase — each phase is independently testable before moving forward. No rate-limit risk until Phase 4.

The *Safe* Foundation

PHASE 01



Foundation

Coding  3/10
 Rate Limit  0/10

Auth, DB schema, Next.js shell. Boilerplate. Fast to spin up. Zero external APIs.

PHASE 02



Lead Manager

Coding  4/10
 Rate Limit  1/10

CSV upload, contact storage, campaign CRUD. Just DB writes — no API calls.

PHASE 03

Script Builder

Coding  6/10
 Rate Limit  1/10

Branching logic UI, JSON storage, Vapi/Retell prompt mapping. Storing JSON — no live API calls.

✓ PHASES 1-3 ARE SAFE ZONES Build and test freely — no rate-limit exposure until Phase 4

The *Critical* Phases

PHASE 04 ⚠️



Queue + Scheduler

Coding  8/10
 Rate Limit  8/10

BullMQ + Redis, rate limiter config, retries, failure handling. Must configure rate limits BEFORE hitting Vapi/Retell in production.

PHASE 05



Results Dashboard

Coding  5/10
 Rate Limit  3/10

Webhook receiver + transcript storage + analytics.
 Passive receiving — main risk is duplicate event handling.

PHASE 06

Deploy + Polish

Coding  4/10
 Rate Limit  0/10

Vercel + Railway, env vars, CI/CD, error monitoring.
 Infrastructure only. No API risk.

⚠️ PHASE 4 IS THE MAKE-OR-BREAK — Lock in BullMQ rate limiter BEFORE any Vapi/Retell production calls

OVERALL PROJECT RATING

Buildable. *Phase by Phase.*

Overall complexity: 7/10 — not because it's impossible, but because the pieces must connect correctly. Phase 4 is the wall. Build the foundation right and it won't stop you.

7/10

OVERALL COMPLEXITY

Phase 4

ONLY REAL RISK ZONE

6–8 wks

SOLO BUILD ESTIMATE