

PITCHPROX INC. – FORMAL OVERVIEW

Core Product

A real-time AI objection-handling SaaS that listens to outbound sales calls and delivers a concise rebuttal in <400-500 ms.

Billing & Monetization (Cost-Optimized)

- **Platform:** Zoho Billing (metered) – **\$49 / month flat**, unlimited seats.
- **Metered unit:** 1 AI-assist = 1 billable unit.
- **Plans**
 - Free Trial 10 assists \$0 for 1 month
 - Starter 200 assists \$99 / mo
 - Pro 600 assists \$199 / mo
 - Elite 1 200 assists \$349 / mo

Subscription Tiers (July 2025 pricing)

Plan	AI Assists / mo	Reports / mo	Overage	Retail	Gross Margin
Free	25 one time	0	\$0.50	\$0	Profit on 18th call
Starter	200	5	\$0.25	\$99	83%
Pro	600	15	\$0.20	\$199	74%
Elite	1,200	30	\$0.15	\$349	71%

- Add-ons

Call Report Analysis, Pricing Promos/Upgrades

Quantity	Price per report	Retail Margin
1	\$5	99%
5-pack	\$20 (save 20 %)	98%
20-pack	\$75 (save 25 %)	98%

Custom pricing override per customer (promo codes, enterprise deals).

Upgrades / Downgrades – proration handled by Zoho Billing API (zero dev time).

Self-Learning Local Cache – Implementation & Long-Run Savings

1. Architecture
 - **Local LRU cache** (Redis or in-process) stores **objection** → **rebuttal** pairs.
 - **Online learning loop**: every new objection + accepted rebuttal is **hashed (SHA-256)** and stored.
 - **Similarity check** (cosine distance ≤ 0.15) before hitting the API.
 - **Sync thread** pushes new pairs to the cloud nightly for **global cache** (optional, no cost).
2. Hit-Rate Growth
 - Month 0 (cache only): **25 %** (top 30).
 - Month 3: **45 %** (≈ 200 pairs).
 - Month 12: **65 %** (≈ 800 pairs).
 - Month 24: **75 %** ($\approx 2\,000$ pairs) – asymptote.
3. Cost Savings (tiered \$0.20 API)

Month	Calls / mo	Cache Hit %	API Calls	Monthly API Spend	Saved vs. 0 % cache
0	50,000	25%	37,500	\$7,500	\$0.00
3	50,000	45%	27,500	\$5,500	\$2000.00
12	50,000	65%	17,500	\$3,500	\$4000.00
24	50,000	75%	12,500	\$2,500	\$5000.00

4. Implementation Snippet (Node)

JavaScript

```
const crypto = require('crypto');
const cache = new LRU(2000); // 2 000 pairs max
function hash(text) {
  return crypto.createHash('sha256').update(text.toLowerCase()).digest('hex');
}
async function getRebuttal(objText) {
  const key = hash(objText);
  if (cache.has(key)) return cache.get(key); // <1 ms
  const rebuttal = await llm(objText);
  cache.set(key, rebuttal);
  return rebuttal;
}
```

5. Result
 - After 2 years you cut 75 % of API costs, improve response time, and never break the “one-price-per-call” promise.

Post-Call Intelligence (Built-In)

- **Auto-Call Summary** – AI generates a 3 to 5—sentence recap the moment the call ends.
- **Editable Notes** – rep can append or edit the summary before it's saved.
- Follow-up Engine
 - One-click **email template** sent from inside the dashboard.
 - **Auto-reminder** (24 h, 72 h, 1 wk) scheduled via Zoho Campaigns.
 - **Notification bell** in the HUD for overdue follow-ups.

Back-Office Tabs (Ultra-Thorough)

- Dashboard, Customers, Plans & Pricing, Metering, Invoices, Add-ons, Promotions, Support, Admin Roles, Audit Trail, Webhooks, SOC-2 evidence locker.

SOC-2 Compliance

- **What it is:** Independent audit against AICPA's 5 Trust Service Criteria (Security, Availability, Processing Integrity, Confidentiality, Privacy) .
- **Why it matters:** Required by most B2B buyers and investors; unlocks enterprise deals and builds instant trust .
- **How to get it** (5-step process) :
 - Pick TSCs (Security + Availability + Confidentiality for SaaS).
 - Map & implement controls (MFA, encryption, logs).
 - Run readiness assessment.

Integrations

- Twilio Voice SDK (dialer + recording)
- Zoho Billing API (metered invoicing)
- Zoho Campaigns (follow-up e-mails)
- Slack / Teams webhooks (notifications)

PitchProX Back-Office & Internal Rep Dashboard

Complete UI / UX Specification (Unstructured, screen-by-screen)

GLOBAL NAV BAR (left rail, always visible)

•  Dashboard •  Leads •  Dialer •  Billing •  Analytics •  Admin

Role badges (bottom left): Admin | Manager | Rep | Support (changes visible tabs)

DASHBOARD (Home)

KPI Zoho Biling (live): AI-Assists Today | Active Calls | Pipeline \$ | Quota Burn %

Map widget: "Calls in progress" (green dots)

Feed: "John closed \$1,200 deal 3 min ago" (auto-scrolling)

Quick Actions: **Start Demo Call** | **Bulk Upload Leads**

2. LEADS SECTION

2.1 Lead List

- Columns: Name, Email, Phone, Status, Owner, AI-Assists Used, Next Action
- Filters: Trial, Paid, Churn Risk, Tag, Date Range
- Bulk actions: Assign Rep, Tag, Delete

2.2 Lead Detail Drawer (slide-over)

- **Call Button** → launches internal dialer
- **Trial Timer** (countdown to trial expiry)
- **Promotions** dropdown → one-click apply credit or coupon
- **Upgrade / Downgrade** toggle → previews prorated price for **next billing cycle only**
- **Activity Timeline** (auto-logged calls, e-mails, objections, AI prompts)
- **Notes** – rich text, auto-timestamped, searchable

2.3 Trial Manager

- **Trial Settings** (calls)
 - Auto-Extend Trial checkbox
 - Trial-to-Paid funnel chart
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3. INTERNAL DIALER (inside Leads or standalone)

Click-to-call button → Twilio SDK opens side panel

Script HUD – collapsible overlay with live AI prompt (streaming)

Post-Call Summary – auto-generated 3-line summary appears in Notes

Follow-up Scheduler – pre-fills date/time, type (email / call / Zoom)

Demo Launch – one-click Zoom link creation (auto-sends calendar invite)

4. CAMPAIGNS (Zoho Campaigns embedded)

Triggers Library – drag-and-drop

- Trial expires in (x calls)
- AI-assist used ≥ 80 % quota, used ≥ 80 % quota
- Trial ended with zero usage

Email Builder – rich text, merge tags, A/B subject lines

Campaign Performance – open / click / reply rates per lead

Custom SMTP toggle (Zoho or own server)

5. BILLING (Zoho Billing iframe)

Plan Overview – Starter / Pro / Elite tiles

Metered Usage Meter – real-time bar, red when > 80 %, > 90 %

Upgrade / Downgrade – radio buttons

Add-on Marketplace – 50-assist call bundle, 1 call report, bulk call reports, one-click purchase,
Credit / Refund – partial or full

6. ANALYTICS

Rep Performance – AI-Assists vs. Win-Rate scatter plot
Company Health – MRR, Churn, LTV, CAC
Audit Log – every API call, permission change, credit note
Export – CSV / JSON / Snowflake

7. ADMIN & AUDIT

User Management – invite, suspend, role toggle
Permission Matrix – granular read/edit/delete toggles
Audit Trail – immutable log with date/time stamp
SOC-2 Controls – policy checklist, evidence uploads





















8. ROADMAP & BLOG

Public Roadmap – Trello-style kanban, voting enabled
Internal Blog – release notes, rep spotlights (SEO + culture)

9. NOTIFICATIONS & EMAILS

Bell icon – unread counts
Auto-emails – trial expiry, quota warning, upsell nudges
Slack / Teams – webhook for high-value upgrades

10. ACCESS CONTROL SUMMARY

Role	Leads	Dialer	Billing	Campaign	Audit
Admin					
Manager					
Rep	 (own)	 (own)			
Support	 (view)				

HR Role – Access Map (read-only or limited write)

Area	Access Level	Notes
Employee Directory (Zoho People)	Full read & edit	Onboard, offboard, update titles, emergency contacts
Time-off & Leave Requests	Approve / Deny	Leaves, sick days, PTO balances
Org Chart	Read & edit	Maintain reporting lines
Payroll & Salary Info	Read-only	View salary bands, no edit
Audit Logs (HR actions)	Read-only	Track employee changes for compliance
Onboarding Checklists	Create & assign	Send welcome packs, policy docs
Document Repository	Upload / download	Store I-9s, NDAs, 83(b) copies
Billing / Customer Data	No access	Segregated from commercial data
Dialer / Call Stats	No access	Restricted to sales roles

HR sees HR, People, Onboarding, Docs, Time-off tabs only—everything else is hidden.

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- 11. MISCELLANEOUS
 - Dark mode toggle
 - Keyboard shortcuts
 - Accessibility (WCAG 2.1 AA)
 - Multi-tab persistence
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Zoho APIs cut the back-office build from **~30 dev-days to ~15 dev-days** by giving you **pre-built, plug-and-play endpoints** for every major function:

Metered billing & subscriptions

- **Zoho Billing REST API** handles plan creation, upgrades, downgrades, proration, and add-ons in one line of code instead of custom SQL + webhook logic .

Lead, customer, and quota data

- **Zoho CRM V7 Bulk & Query APIs** let you import, update, or retrieve thousands of lead records in a single call—no database schema to maintain .

Automated e-mail campaigns

- **Zoho Campaigns API** triggers trial-expiry or quota-warning e-mails based on real-time usage; no SMTP or template engine to build .

Real-time notifications & webhooks

- **Zoho Notification API** fires webhooks instantly when a quota hits 80 %, so you don't poll your own database .

Security & audit logs

- **Zoho Mail Logs API** and **Zoho CRM audit endpoints** provide tamper-proof logs out-of-the-box—removes the need for a custom audit table .

Scalability & cost

- All APIs are rate-limited and auto-scale; you pay **\$49/month flat** for Zoho Billing instead of running EC2 instances for billing logic .

In short, Zoho APIs act as **ready-made micro-services**; you wire them together with simple REST calls instead of building the plumbing yourself.

PitchProX – Back-Office DEV TASK LIST (Kanban-ready)

EPIC 0 – PLANNING & INFRA

- 0.1 Create **Trello board** (or GitHub Projects) with 6 lanes: Backlog, In-Dev, QA, SOC-2, Done.
 - 0.2 Assign **Zoho Billing API key** (sandbox) to backend repo secrets.
 - 0.3 Create **role matrix** in code (Admin, Manager, Rep, Support, Auditor).
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EPIC 1 – USER & ROLE MANAGEMENT

- 1.1 Sign-up / Invite flow
 - POST /api/users/invite (Admin only)
 - Payload: email, role, plan, quota override.
 - 1.2 Role-based routes (middleware)
 - If role = Rep → hide Billing & Audit tabs.
 - 1.3 Trial wizard
 - POST /api/trials/start
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EPIC 2 – QUOTA & METERING

- 2.1 Quota table
 - migration: quotas(user_id, plan_id, assists_allowed, reset_date).
 - 2.2 Meter job
 - cron: every minute, count AI-assists → push /api/usage/increment.
 - 2.3 Quota alerts
 - Webhook to **Zoho Campaigns** when usage ≥ 80 %.
 - 2.4 Proration endpoint
 - PATCH /api/plans/change (next_cycle_only flag).
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EPIC 3 – INTERNAL DIALER & HUD

- 3.1 Twilio SDK wrapper
 - POST /api/dialers/start {lead_id}.
 - 3.2 Real-time HUD
 - WebSocket channel /ws/prompt → stream AI tokens.
 - 3.3 Post-call endpoint
 - POST /api/calls/finish → auto-generate summary & follow-up date.
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EPIC 4 – POST-CALL WORKFLOW

- 4.1 Auto-summary
 - POST /api/calls/summary {call_sid} → returns 3 to 5—line text.
 - 4.2 Follow-up scheduler
 - POST /api/followups/create {user_id, type, date}.
 - 4.3 Editable notes
 - PATCH /api/notes/{call_id}.
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EPIC 5 – CAMPAIGNS & EMAILS

- 5.1 Trigger templates
 - TrialExpiry3Days, Quota90Pct, UpgradeUpsell, ChurnRescue.
 - 5.2 Zoho Campaigns integration
 - Webhook template IDs stored in config.yml.
 - 5.3 Custom SMTP toggle (env var).
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EPIC 6 – BACK-OFFICE UI

- 6.1 Navigation component
 - Role-gated menu items rendered from /api/permissions.

6.2 Dashboard KPI cards

- React component pulling /api/stats/live.

6.3 Audit log viewer

- GET /api/audit with filters (date, user, action).
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EPIC 7 – SOC-2 CONTROLS

7.1 **Access logs** – append-only DB table.

7.2 **Encryption** – AES-256 at rest, TLS 1.3 in transit.

7.3 **Quarterly penetration test** – scheduled via calendar invite.

DONE CRITERIA

- All endpoints return 200 OK in Postman.
- Cypress e2e passes: login → dial → quota alert → follow-up scheduled.
- SOC-2 checklist (provided by CPA) is 100 % green.

Quota & Audit Module – Single Screen, Zero Dev Lift

Quota Builder (Admin)

- Per-plan defaults: Starter 200, Pro 600, Elite 1 200 assists / calendar month.
- **Override field**: type +100 or -50 to any rep; effective **next cycle only**.
- Date picker: “Reset date” (always 1st of each month).

Live Meter (Rep Dashboard)

- Circular gauge: green 0-79 %, yellow 80-94 %, red 95 %+.
- Hover tooltip: “Used 142 / 200 – 58 left”.

Audit Trail (Admin)

- Auto-log every quota change: old value, new value, who, timestamp, reason text.
- **CSV export** button for SOC-2 evidence.
- **Read-only** view for auditors; no edit rights.

Alert Engine

- **Soft warning** at 80 % → Slack DM + in-app banner.
- **Hard stop** at 100 % → tele-prompt disabled, upsell banner appears.

Monthly Roll-up Report

- Auto-generated PDF: quota assigned, quota used, overage cost, rep ranking.

All data lives in **Zoho Billing**; no extra code.