PTO Connect – Complete MVP Specification

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🎯 Mission Statement

PTO Connect is a modern, all-in-one web platform that simplifies and supercharges Parent-Teacher Organization operations. With powerful AI features, built-in communication tools, robust planning modules, and integrated payment systems, PTO Connect supports every stakeholder from teachers to volunteers. The system scales with organizations and is designed to be mobile-friendly, secure, and intuitive—bridging traditional PTO tasks with innovative technology.

🚀 Platform Scope Overview

The platform includes three primary environments:

1. \*\*Public Marketing Site (www.ptoconnect.com)\*\*:  
 - Home, Pricing, Success, Cancel, Create PTO pages  
 - Stripe-based onboarding with 15-day trial, monthly/annual plans  
 - Dynamic plan pricing fetched via Stripe `lookup\_keys`  
 - QR/sign-up code system for unique PTO environment creation

2. \*\*Main Application (app.ptoconnect.com)\*\*:  
 - Role-based dashboards and tools  
 - Secure environment tied to `org\_id`  
 - All core features below

3. \*\*Backend API (https://api.ptoconnect.com)\*\*:  
 - Node.js + Express REST API  
 - Supabase v3 for database and authentication  
 - OpenAI, Stripe, Twilio, Meta Graph API integrations

✅ Core MVP Modules

1. \*\*User Management & Role Permissions\*\*  
 - Roles: admin, board\_member, committee\_lead, volunteer, parent\_member, teacher  
 - Supabase auth with custom metadata & JWT verification  
 - Role-specific dashboard components  
 - Invite users via QR/signup code tied to `org\_id`

2. \*\*Communication Suite\*\*  
 - In-app messaging + group channels  
 - Email & SMS via Twilio  
 - AI-generated newsletters, meeting summaries  
 - Scheduled messages and post history tracking

3. \*\*Event & Project Planner\*\*  
 - Calendar interface (monthly, list, and timeline views)  
 - Task delegation, deadline tracking, RSVPs, volunteer signups  
 - Sponsor tracking system (before, during, after events)  
 - AI event wizard with prompt-based generation + manual overrides

4. \*\*Fundraising Toolkit\*\*  
 - Multi-type campaign creation: donations, sales, pledges  
 - Stripe integration for secure transactions  
 - Donor progress dashboards, QR/pay links  
 - AI fundraising copy + auto-populated forms  
 - Public donation pages linked to campaigns

5. \*\*Budget & Finance Tracker\*\*  
 - Categorized expenses and income records  
 - Upload & tag receipts  
 - AI-generated summaries and projections  
 - Multi-approver workflow and email report sharing  
 - Export to CSV/PDF

6. \*\*Social Media Automation\*\*  
 - Meta Graph API for FB/Instagram integration  
 - Post scheduling with preview  
 - AI-generated captions and image promo ideas  
 - Engagement metrics dashboard

7. \*\*Teacher Engagement Portal\*\*  
 - Submit classroom needs, surveys, and event ideas  
 - Wishlist uploads  
 - PTO admin review + approval queue

8. \*\*Templates & Automation Engine\*\*  
 - Event/fundraiser template cloning with smart adjustments  
 - Pre-scheduled communications and tasks  
 - Prompt-powered AI for new event/fundraiser plans

9. \*\*Document Vault + AI Assistant\*\*  
 - Upload bylaws, policies, meeting notes, etc.  
 - Search bar powered by RAG + OpenAI for contextual answers  
 - Permissions-based access

🧰 Technical Architecture

| Layer | Tech |  
|----------------|--------------------------|  
| Frontend | React + TailwindCSS |  
| Backend | Node.js + Express (ESM) |  
| Auth/Database | Supabase v3 (PostgreSQL) |  
| Hosting | Frontend: Vercel |  
| | Backend: Render |  
| AI Services | OpenAI via backend |  
| Integrations | Stripe, Twilio, Meta API |

🌟 Post-MVP Roadmap

- Native mobile apps (iOS & Android)  
- District-level dashboards & org grouping  
- Seasonal auto-pause/reactivation logic  
- Admin notification system (e.g. renewal alerts)  
- Custom PTO themes & logos  
- Multilingual interface  
- Teacher-AI copilot for event suggestions  
- Role analytics and engagement scoring