



Leveragegroups

A platform is needed to let WhatsApp group admins monetize targeted, compliant promotional messages sent to their members by brands, using prepaid wallets, controlled daily message caps, and automated revenue sharing. This PRD structures the specification into problem, goals, user stories, requirements, and releases.

(This PRD relies on prior research around WhatsApp Business API-based broadcast/marketing platforms, monetization models, and compliance requirements.)

1. Product Overview

1.1 Problem Statement

- WhatsApp group admins curate highly engaged niche communities but currently lack a structured and compliant way to monetize them.
- Brands want precise, high-intent targeting on WhatsApp but lack:
 - A marketplace of curated groups with demographics.
 - Tools to schedule, pay, and measure group-based messaging.
- Existing WhatsApp marketing tools are brand-centric and do not share revenue with group admins or handle group-level member caps and deduplication across groups.

Product Vision:

Create a **WhatsApp group monetization platform** that connects group admins and brands, enabling:

- Paid, scheduled WhatsApp campaigns targeted at group members.
- Automated revenue sharing: 80% to group admins, 20% to platform.

- Strong guardrails: member opt-outs, daily caps, deduplication, and policy compliance.
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2. Goals and Non-Goals

2.1 Goals

- Allow WhatsApp group admins to:
 - Onboard, describe group demographics, and set monetization rules.
 - Earn revenue from brand-paid messages to their group members.
- Allow brands to:
 - Discover and select groups by demographics/tags.
 - Create, schedule, and pay for campaigns from a prepaid wallet.
- Provide:
 - Per-message charging, wallet management, and automated 80:20 revenue sharing.
 - Cross-group deduplication so each phone receives a campaign at most once, even if in multiple groups.
 - Daily per-member message caps per group.
 - Opt-out handling (request by member; approval by group admin).
- Ensure:
 - Use of WhatsApp Business API or BSP integration for compliant messaging.
 - Basic privacy and spam controls.

2.2 Non-Goals (Phase 1)

- No full-featured CRM or conversation inbox for inbound replies.
- No end-user mobile app for members; they only interact via WhatsApp messages.

- No multi-channel messaging (SMS/email) in MVP.
 - No complex AI personalization; basic static templates only in Phase 1.
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3. User Personas and Key Use Cases

3.1 Personas

- **Group Admin (GA)**
 - Runs one or more active WhatsApp groups.
 - Wants to monetize but protect member trust.
- **Brand / Advertiser (BR)**
 - Needs high-quality WhatsApp reach in specific demographics.
 - Wants predictable pricing, scheduling, and performance stats.
- **Platform Admin (PA)**
 - Operates the platform.
 - Manages approvals, pricing, compliance, and payouts.
- **Group Member (GM)**
 - Member of one or more groups.
 - Receives promotional messages; may want to opt out.

3.2 Key Use Cases

1. GA receives invite link in a WhatsApp group → signs up → gets approved → registers groups and starts earning.
2. BR creates an account, tops up wallet, selects groups by demographics, creates a campaign, and schedules it.
3. System sends scheduled campaign via WhatsApp Business API:
 - Deduplicates across selected groups.
 - Applies daily per-member caps.
 - Charges brand, credits admins and platform.

4. GM receives promotional message with opt-out instructions; sends an opt-out request.
 5. GA reviews and approves/rejects opt-out; system updates targeting accordingly.
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4. Functional Requirements

4.1 Onboarding and Authentication

FR-1: Group Admin Registration

- GA can sign up via:
 - A unique link shared inside a WhatsApp group invite or a general signup link.
- Required fields:
 - Name, email, mobile (WhatsApp number), password.
 - KYC basics (country, for India: PAN, GST optional, bank details for payouts).
- System sends OTP to GA's WhatsApp/phone for verification.

FR-2: Group Registration

- GA can create one or more "Groups" in the platform with:
 - Group name (internal).
 - Tags: city, state, language, interest (e.g., stock trading, parenting), profession, income band.
 - Approximate member count.
 - Daily paid message cap per member (integer, e.g., 0–10).
 - Toggle: Monetization ON/OFF.
- GA must confirm that members have consented to receiving promotional messages via GA (self-declared consent for now, logged).

FR-3: Brand Registration

- BR can sign up with:
 - Company name, contact person, email, phone.
 - Business category and country; in India, GSTIN optional.
- Email/phone verification by OTP.
- BR account has status: Pending, Active, Suspended (set by PA).

FR-4: Platform Admin Controls

- PA can:
 - View and approve/reject GA accounts.
 - View and approve/reject BR accounts.
 - Suspend GA, BR, or Groups for policy violations.

4.2 Wallets, Pricing, and Billing

FR-5: Brand Wallet

- BR has a prepaid wallet.
- BR can:
 - Add funds via integrated payment gateway (UPI/cards/etc.).
 - View balance and transaction history (top-ups, campaign debits, refunds if any).
- System must:
 - Prevent campaign scheduling if estimated cost > available balance.

FR-6: Group Admin Earnings Wallet

- Each GA has an earnings wallet.
- Credits:
 - 80% of net message revenue for sends attributed to GA's groups.
- GA can:
 - View earnings by group and by date.

- Request payout (Phase 1: manual processing; record withdrawal requests).

FR-7: Revenue Share & Pricing

- Default revenue share: Platform 20%, GA 80%.
 - PA can configure:
 - Base price per billable message (per group-member pair) by:
 - Country.
 - Message category (marketing vs. utility, if needed).
 - For each billable unit:
 - $\text{brand_debit} = \text{unit_price}$.
 - $\text{ga_credit} = \text{unit_price} \times 0.80$.
 - $\text{platform_revenue} = \text{unit_price} \times 0.20$.
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4.3 Campaigns and Messaging

FR-8: Message Templates

- BR can create templates with:
 - Name, language, content text, optional media URL, CTA buttons.
- Templates have lifecycle:
 - Draft → Submitted for review → Approved/Rejected by PA.
- If aligned with official WhatsApp Marketing Templates:
 - System must map to approved templates on BSP/Meta side.

FR-9: Campaign Creation

BR can create a campaign with:

- Name and description.
- Selected approved template and parameters (e.g., {{name}}, {{offer}}).
- Target groups:
 - Choose one or more groups from catalog.

- Optional filtering: tags (city, language, interest, profession, etc.).
- Scheduling:
 - Immediate or scheduled date/time.
 - Enforce sending only within allowed time windows (configurable).
- Budget:
 - System displays estimated cost:
 - $\text{estimated_billable_units} \times \text{unit_price}$.
 - Validation against wallet balance.

FR-10: Campaign Scheduling and Execution

- System queues the campaign for execution at scheduled time.
- At execution:
 - Fetch member lists for all target groups.
 - Apply:
 1. Cross-group deduplication:
 - If a phone appears in multiple target groups:
 - Only one message is actually sent to that number for the campaign.
 - The “first” group is determined by a deterministic rule (e.g., lowest group ID or earliest GA onboarding).
 2. Per-member per-group daily cap:
 - Check how many paid messages that member has already received for that group on that day.
 - If limit reached, skip sending under that group, even if billable under rule.
 - Billing:
 - Billable unit = each (group, member) pair originally in campaign’s target, regardless of dedupe outcome, as per requirement.

- For each billable unit, deduct from BR wallet and split revenue between GA and platform.

FR-11: Integration with WhatsApp Business API / BSP

- System sends messages through integrated BSP (e.g., MSG91, Twilio, Tanla, AiSensy).
 - Track statuses:
 - Pending, Sent, Delivered, Read, Failed.
 - Receive webhooks for delivery status and possible WhatsApp-level opt-outs/blocks.
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4.4 Group Members and Opt-Outs

FR-12: Member Representation

- For each group:
 - Platform stores a list of members as phone numbers (normalized).
 - Track:
 - Membership: group_id, phone, join_date (if known), active flag.
 - Per-group opt-out flag.
 - Per-group per-day paid message count (for caps).

FR-13: Member Opt-Out Flow

- Promotional messages include:
 - Short line: "You receive this because you are part of [GROUP_NAME]. Reply STOP to opt out." (or similar).
- When GM sends opt-out:
 - Platform receives the keyword and:
 - Creates an "Opt-out Request" for that group-member.
- GA dashboard:
 - Lists pending opt-out requests.

- GA can approve or reject each.
 - If approved:
 - GM is excluded from further paid messages for that group.
 - Option (non-MVP toggle): Global opt-out (no promotional messages from any group).
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4.5 Discovery, Dashboards, and Analytics

FR-14: Group Catalog for Brands

- BR can discover groups via:
 - Filters: city, state, language, interest, profession, size range.
 - Basic stats per group: approximate size, earnings so far (anonymized), category.
- BR can “favourite” groups for later use.

FR-15: Brand Dashboard

- Show:
 - Wallet balance.
 - Summary: total sends, total spend, total delivered, CTR if link tracking added.
- Campaign list:
 - Status: Draft, Scheduled, Running, Completed.
 - Metrics per campaign:
 - Billable units vs. unique sent numbers (post-dedupe).
 - Delivery and read rates.
 - Spend.

FR-16: Group Admin Dashboard

- Show:
 - Total lifetime earnings, current withdrawable balance.

- Earnings per group and by time (daily/weekly/monthly).
- Operational:
 - List of groups with daily paid message caps.
 - Current day message counts and remaining capacity.
- Opt-out management:
 - Pending requests.
 - History of approved/rejected opt-outs.

FR-17: Platform Admin Dashboard

- High-level KPIs:
 - Number of active GAs, BRs, groups, members.
 - Daily/weekly/monthly sends and revenue.
 - Compliance:
 - Complaint/opt-out rates by brand and group.
 - Ability to suspend brands, groups, or templates.
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5. Non-Functional Requirements

5.1 Performance and Scalability

- System should support:
 - At least tens of thousands of messages per campaign in MVP, scalable upward.
- Use asynchronous job processing for:
 - Campaign execution.
 - Webhook handling (delivery receipts).

5.2 Security

- Authentication via secure sessions / tokens.

- Role-based access control (PA, GA, BR).
- Encrypt personally identifiable data (phone numbers) at rest and in transit.
- Audit logs for:
 - Admin approvals, template changes, payouts, and key configuration changes.

5.3 Privacy and Compliance

- Store minimal data necessary for operation.
 - Inform GAs and BRs about:
 - Need for consent and adherence to WhatsApp policies and local regulations.
 - Log:
 - GA consent declarations that members agreed to promotional messages.
 - Provide export / deletion tools for regulator or user data requests (later phase).
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6. Release Plan

6.1 MVP (Release 1) — 6-Week Build

Goal: Prove the core transaction loop with 5 group admins, 3 brands, and 10,000+ messages sent in Week 6.

What's IN the MVP

For Group Admins:

- Simple signup: Name, email, WhatsApp number, OTP verification
- Register ONE group with:
 - Group name
 - City, language, interest tags (max 3 tags)
 - Self-declared member count

- Daily message cap per member (default: 1)
- Upload member phone numbers via CSV (max 500 members in MVP)
- Dashboard showing:
 - Total earned this month (₹)
 - Messages sent today/this week
 - Pending opt-out requests (list view)
- Opt-out handling:
 - View member opt-out requests
 - Approve/reject with one click
 - Auto-excludes approved opt-outs from future sends

For Brands:

- Simple signup: Company name, contact email, phone, OTP
- Prepaid wallet:
 - Top-up via Razorpay (UPI/cards)
 - View balance and transaction history
- Browse groups:
 - Filter by city, language, interest
 - See group size and price per message
- Create campaign:
 - Campaign name
 - Select 1-3 groups
 - Use ONE pre-approved template (platform provides 3 starter templates)
 - Schedule: immediate OR pick date/time (next 7 days only)
- Campaign dashboard:
 - Status: Scheduled/Running/Completed
 - Billable units vs. unique sends

- Total spend
- Delivery rate

Platform Core:

- WhatsApp Business API integration via **Interakt** (single BSP)
- Campaign execution engine:
 - Cross-group deduplication (bill per group-member pair, send once)
 - Per-member daily cap enforcement
 - Wallet debit + 80/20 revenue split
- Opt-out processing:
 - Webhook receives "STOP" keyword
 - Creates opt-out request for GA review
 - Auto-excludes after GA approval
- Admin panel (internal only):
 - View all GAs, brands, campaigns
 - Suspend GA or brand
 - Manual wallet adjustments (for support)

What's OUT of the MVP

Removed to hit 6-week deadline:

- **No KYC/banking integration** → GAs see earnings but can't withdraw in MVP; manual payouts on request via Google Form
- **No template creation by brands** → Use 3 platform-provided templates only (e.g., discount offer, event invite, new product launch)
- **No template approval workflow** → Templates pre-approved with Interakt before launch
- **No multi-language support** → English + Hindi only in MVP
- **No detailed analytics** → Just basic counts (sent, delivered, spend)

- **✗ No A/B testing, rich media, or CTA buttons** → Plain text templates only
 - **✗ No automated payout system** → Earnings tracked; payouts manual via bank transfer after Week 6
 - **✗ No brand approval workflow** → All brands auto-approved (risky but acceptable for 3 pilot brands)
 - **✗ No GA approval workflow** → All GAs auto-approved (screen manually before giving signup links)
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6-Week Build Timeline

Week 1: Foundation

- Set up repo, database schema (PostgreSQL)
- User auth (GA, Brand, Admin roles)
- Basic dashboard shells for all three
- Integrate Razorpay for wallet top-ups

Week 2: Group & Member Management

- GA can register one group + upload CSV of members
- Basic group catalog page (list view with filters)
- Brand can browse and favorite groups

Week 3: Wallet & Pricing

- Wallet top-up flow (test mode)
- Configure pricing per message (₹3 per billable unit)
- Campaign creation form (select groups, pick template, schedule)
- Cost estimation before campaign creation

Week 4: Campaign Engine

- Build job queue (Bull + Redis)
- Integrate Interakt API for sending
- Implement:

- Cross-group dedupe logic
- Daily cap enforcement
- Wallet debit + revenue split
- Webhook handler for delivery status

Week 5: Opt-Outs & Dashboards

- Opt-out request creation (keyword → webhook)
- GA opt-out review UI
- Brand campaign dashboard (status, spend, delivery)
- GA earnings dashboard (₹ earned, messages sent)

Week 6: Testing & Launch

- End-to-end testing with 2 internal test groups
 - Onboard 5 pilot GAs (friends/network)
 - Onboard 3 pilot brands (portfolio companies or local businesses)
 - Run 3-5 real campaigns
 - Monitor delivery rates, opt-outs, bugs
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MVP Success Criteria (End of Week 6)

Usage Metrics:

- 5 group admins onboarded
- 3 brands onboarded
- 10+ campaigns created
- 10,000+ messages sent
- >80% delivery rate

Quality Metrics:

- <5% opt-out rate
- <3 bugs reported per campaign

- Zero WhatsApp account bans

Financial Metrics:

- ₹30,000+ in wallet top-ups
- ₹24,000+ earned by GAs (tracked, not paid out yet)
- ₹6,000+ platform revenue
- Unit economics validated: Cost per send <₹0.50, charge ₹3, GA gets ₹2.40, platform keeps ₹0.60

Learning Metrics:

- 3+ GA interviews: Would they recommend to other admins?
 - 3+ brand interviews: Would they top up again?
 - Document top 5 feature requests for Release 2
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Post-MVP: First 24 Hours After Week 6

Do this immediately:

1. Run retrospective with team: What broke? What was easier than expected?
 2. Interview all 5 GAs and 3 brands (30 min each)
 3. Analyze delivery data: Which groups had best delivery rates? Worst?
 4. Calculate actual unit economics: BSP cost, pricing, margin
 5. Decide: Build Release 2 OR pivot based on feedback
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6.2 Release 2 (Post-MVP: Weeks 7-12)

Only build Release 2 if MVP proves:

- GAs are actively inviting more GAs
- Brands are topping up wallets multiple times
- Delivery rates are consistently >80%
- Opt-out rates are <3%

Scope for Release 2:

- Self-serve payout requests (UPI/bank transfer)
 - Brands can create custom templates (with approval workflow)
 - Advanced filters: profession, income band
 - Campaign analytics: CTR (if links included), best-performing groups
 - Multi-language support (add 3 regional languages)
 - Referral program: GAs earn ₹500 for each new GA they bring
 - Automated opt-out (instant, no GA approval needed)
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6.3 Technical Stack (MVP)

Backend:

- Node.js + Express (or FastAPI if Python preferred)
- PostgreSQL (user data, groups, campaigns, wallets)
- Redis (job queue, rate limiting)
- Bull (job processing for campaigns)

Frontend:

- Next.js (React) or simple server-rendered pages
- TailwindCSS for quick UI

Infrastructure:

- Railway or Render (cheap hosting for MVP)
- Interakt API (WhatsApp Business API)
- Razorpay (payment gateway)

Security:

- Encrypt phone numbers at rest (AES-256)
- Rate limit API endpoints (10 req/min per user)
- Audit log for wallet transactions

Estimated hosting cost for MVP: ₹5,000-8,000/month (covers 100K messages)

6.4 MVP Launch Checklist

Before giving signup links to pilot users:

- 3 starter templates approved with Interakt
- Wallet top-up working in test mode
- At least one end-to-end test campaign sent successfully
- Opt-out webhook tested and working
- Admin panel accessible (for manual fixes)
- Google Form ready for payout requests
- Support email/WhatsApp set up
- Terms of Service + Privacy Policy live (basic versions)

Week 6 Launch Day:

- Send signup links to 5 pilot GAs
- Host 30-min onboarding call with each GA
- Send brand signup links to 3 pilot brands
- Host 30-min demo call with each brand
- Monitor dashboard hourly for first 48 hours
- Be available on WhatsApp for urgent issues

Your First Step: Pick your tech stack and set up the repo by end of this week. Share repo link + first commit to lock in the timeline.

7. Open Questions and Decisions Needed

- **Member list sourcing:**
 - Final policy on how GAs provide phone numbers (manual upload vs. via other tools) while staying within WhatsApp and privacy rules.
- **Opt-out governance:**

- Should GA approval be mandatory, or should member STOP be auto-respected regardless of GA choice?

- **Charging model:**

- Today: bill per (group, member) pair even if deduped.
- Future option: discount or partial billing for deduped entries?

- **Quality / Spam thresholds:**

- Define platform-level daily message limits per member across all brands to preserve user trust.
-