COCKROACH NETWORK

BUILT TO SURVIVE

A social network with a native reward economy — mobile-first mining, verifiable scarcity, and trust by design.

July 2026 · cockroach.network · ROACH

Abstract

Cockroach Network is a mobile-first social platform with a native reward economy. Users earn ROACH, the network's unit of account, through daily engagement sessions ("mining"), amplified by a strictly single-level referral graph. The platform pairs this economy with the communication features users already live in — chat, ephemeral stories, games, and voice/video calls — so that the token is not the product bolted onto an app, but the connective tissue of one.

The project's founding constraint is trust. A generation of "tap-to-mine" applications extracted attention and referrals, then delivered nothing. Cockroach Network is engineered as the structural inverse: no payment is ever collected from users, all economic rules are published before launch and never silently amended, issuance is capped at a fixed 100,000,000,000 ROACH, and early participation is recognised through numbered, never re-minted Founder credentials. This paper specifies the product, the mining protocol, the token economy, and the commitments against which the project asks to be judged.

1. Introduction: The Trust Deficit

Mobile "mining" applications have onboarded hundreds of millions of users over the past cycle. The mechanism is well understood: a daily check-in accrues an off-chain balance, referrals accelerate accrual, and a future listing converts balances into tradable assets. Executed honestly, the model is a legitimate distribution strategy — it replaces capital expenditure on marketing with token issuance to genuine early users.

In practice, most implementations were dishonest. Balances were never convertible. Rules changed without notice. Withdrawal was gated behind payments or endless advertisement viewing. The result is a user base that is simultaneously experienced with the mechanic and deeply skeptical of it.

We regard this skepticism as the central design input, not an obstacle. Every architectural and economic choice in this document can be traced to a single question: **can the user verify this claim without trusting us?**

2. Vision

> *"The last coin standing" is not a slogan about price. It is a thesis about survivorship: networks endure when daily utility, not speculation, drives retention.*

Cockroach Network's end state is a social super-app in which the token has organic demand sinks: users spend ROACH on game entries, profile customisation, creator gifting, and marketplace collectibles. Mining bootstraps the network; utility sustains it. The roadmap (Section 10) sequences features so that each phase adds a demand sink before supply expands.

The destination is sovereignty. The strongest networks in history all made the same final move: once their user base justified it, they stopped renting infrastructure and built their own. Cockroach Chain — a sovereign network operated for and by the ecosystem — is the long-term end state of this project. It will be pursued only when the network has earned it: sustained scale, live demand sinks, and a community large enough to secure it.

3. The Application

3.1 Phase 1 — The Core Loop

- **Mining console.** One tap opens a 24-hour accrual session; the live balance and rate are always visible.
- **Team panel.** Referral code, share flow, and per-member activity status with the tiered active bonus (+5% for each of the first 20 active referrals, +1% thereafter).
- **Messaging.** One-to-one text chat with media, the retention layer between sessions.
- **Leaderboards.** Weekly miner and recruiter rankings; social proof rendered as a game.
- **Social growth rewards.** Following all official channels earns a one-time 100 ROACH bounty; daily engagement (like, comment, share) earns 1 ROACH per action, capped server-side at 10 ROACH per day.

3.2 Phase 2 — Communication

- **Voice and video calls**, free to users, built on WebRTC peer-to-peer transport with SFU fallback for groups.
- **Stories** — 24-hour ephemeral video with ROACH rewards routed to popular creators.

3.3 Phase 3 — Economy

- **HTML5 game arcade** with ROACH entries and prizes — the first large-scale demand sink.
- **Live streaming** with gifting.
- **Token Generation Event** and on-chain migration (Section 8).

4. The Mining Protocol

Mining is proof-of-engagement, accounted off-chain until the TGE. A session is opened by explicit user action and accrues for 24 hours; an expired session stops accruing until re-opened. Balances are computed exclusively server-side against an append-only ledger.

4.1 Rate Function

The hourly accrual rate for user *u* is:

$$R(u) = B \times (1 + b(A(u)))$$

where **B** is the epoch base rate and **A(u)** is the count of the user's directly referred members who have mined within the trailing 72 hours. The referral bonus **b(A)** is **tiered**: each of the first 20 active referrals adds **+5%**, and every active referral beyond 20 adds **+1%** — so 20 active referrals double the rate (+100%), after which growth is gentle. The bonus is **hard-capped at +1000%** (an 11× ceiling) and is strictly first-level: a referral's own referrals confer nothing. This bounds the structure away from multi-level compensation while preserving a strong, honest growth incentive.

4.2 Boost Rounds

Once per hour of an active session, a user may initiate a 60-second Boost Round. During the round, each tap on the mining console credits a fixed micro-reward, multiplied by the user's referral bonus. Boost Rounds convert passive accrual into an hourly moment of active engagement — the network's heartbeat — while remaining strictly optional: missing a round costs nothing beyond the bonus itself. Per-round caps and server-side rate validation prevent automation abuse.

4.3 Social Growth Rewards

Beyond mining, the network rewards genuine social participation. A one-time **follow bounty** of 100 ROACH is credited when a user follows every official channel. A recurring **engagement reward** pays a flat 1 ROACH for each like, comment, or share on network posts. Both credit the same append-only ledger as mining. Engagement is bounded by a hard server-side cap of 10 ROACH per user per UTC day — combined across all action types — so the reward can never be inflated by automation: even a client that fabricates the "engaged" signal cannot mint beyond the daily ceiling. On-post verification via platform OAuth is a planned hardening; the ledgered cap is the binding anti-farm guarantee today.

4.4 Issuance Epochs (Halving)

Epoch	Registered users	Base rate (ROACH/hr)	Character
0	0 – 100,000	1.0	Founder era
1	100,000 – 1,000,000	0.50	Early growth
2	1,000,000 – 10,000,000	0.25	Expansion
3	10,000,000 – 100,000,000	0.125	Maturity
4	Pool exhaustion	0	Mining concludes

Epoch thresholds and rates are published constants. They will not be revised, paused, or "boosted" by promotion. An early participant's advantage is therefore mathematical and permanent — and equally, it is an advantage in tokens, not a promise of monetary value.

5. ROACH Token and Allocation

Allocation	Share	Amount (ROACH)	Vesting / release
Community mining pool	50%	50,000,000,000	Released only via the mining protocol
Team & founders	15%	15,000,000,000	36-month linear vest, 12-month cliff

Allocation	Share	Amount (ROACH)	Vesting / release
Liquidity & listings	15%	15,000,000,000	Locked to DEX liquidity at TGE
Ecosystem & creator rewards	10%	10,000,000,000	Games, gifting, creator funds
Marketing & partnerships	10%	10,000,000,000	24-month programmatic release

Total supply is fixed at 100,000,000,000 ROACH. The contract will expose no mint function after deployment. Deployment target is a low-fee EVM chain (BNB Chain or Polygon) using an audited standard token contract; the final selection will be announced with the TGE plan and audit report.

5.1 Demand Sinks

A distribution-only token collapses at listing. ROACH is spent inside the network from Phase 3 onward: game entries and wagers, marketplace collectibles (Section 6), creator gifting, profile and cosmetic upgrades, and boosted visibility for streams. Sink revenue is partially burned and partially recycled into creator rewards; exact ratios will be published before Phase 3 activation.

6. The Badge System

Badges are the network's credential layer — non-fungible, earned, and scarce. At TGE they migrate on-chain as NFTs; in-app they function as status and marketplace assets from day one.

Badge	Rarity	Criterion
Founder Survivor #1–1000	Legendary	First 1,000 verified accounts; numbered; never re-minted
Colony Builder	Epic	Ten referred members
ROACH Whale	Epic	Hold 10,000+ ROACH
Week Warrior	Rare	Seven consecutive daily sessions
Recruiter	Rare	Three referred members
Dedicated Miner	Uncommon	Ten completed sessions

The Founder issue is the project's canonical scarcity commitment: if badge #1,001 ever exists, every claim in this paper should be discounted to zero. We consider that the point.

7. Referral Integrity and Anti-Fraud

- **Single level, free entry.** No payment is required to join at any tier; no compensation derives from depth. The program is a growth incentive, not a compensation structure.
- **Verified humans.** Phone/email OTP at signup; one account per device fingerprint; velocity limits per IP and device cluster.
- **Earned activation.** A referral counts toward bonuses only after completing seven mining sessions, filtering disposable accounts.

- **KYC at conversion.** On-chain migration is available only to identity-verified accounts, confining Sybil losses to the off-chain ledger.

8. Token Generation Event and Migration

The TGE is scheduled by readiness, not by calendar: it requires (i) sustained day-7 retention above 20%, (ii) at least one live demand sink, and (iii) a completed third-party contract audit. At migration, verified users convert off-chain balances 1:1 into on-chain ROACH; unverified or fraudulent balances are voided and returned to the community pool. Liquidity from the 15% allocation is locked at listing.

9. Transparency Commitments

Commitment	Mechanism
No user payments, ever	The application contains no payment collection surface pre-TGE
Immutable economics	Rate, epochs, and allocations published here; contract mint-free
Public metrics	Live dashboard: users, sessions, issued ROACH, badge count
Identified team	Named founder; monthly video AMA; weekly shipped-changelog
Advance notice	Any parameter affecting users announced 30 days ahead, with rationale

10. Roadmap

Window	Milestone
Q3 2026	Closed beta (waitlist order); mining, referrals, chat, leaderboards, badges
Q4 2026	Public web app; transparency dashboard; 100K-user epoch review
Q1 2027	Voice/video calls; Stories; Android release
Q2 2027	Game arcade (first demand sink); creator rewards
H2 2027	Contract audit; TGE and on-chain migration; badge NFT migration; live streaming
2028+	Cockroach Chain — research and development toward a sovereign network purpose-built for the ecosystem, migr

11. Risk Factors and Disclaimers

- **No value promise.** ROACH is an in-app reward instrument. It may never attain, or may entirely lose, monetary value. Nothing herein is investment, legal, or tax advice.
- **Regulatory risk.** Digital-asset regulation differs by jurisdiction and changes quickly; features including the TGE may be delayed, altered, or withheld in specific markets to remain compliant.
- **Execution risk.** The roadmap is a plan, not a warranty. Dates are targets and readiness-gated.

- **Platform risk.** Distribution through app stores is subject to their evolving blockchain policies; the web application is the canonical, always-available client.