The Circl Protocol

Financial Identity Infrastructure for the Cash Economy

A protocol for translating community savings participation into a verifiable, member-owned credential — bridging the cash economy and formal finance.

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Abstract

Over one billion people worldwide participate in rotating savings and credit associations (ROSCAs) — known as pardna in Jamaica, susu in West Africa, tanda in Mexico, chama in East Africa, ajo in Nigeria, hui in China, kye in Korea. These informal financial systems operate with discipline, accountability, and reliability that often exceeds formal banking — yet remain invisible to banks, credit bureaus, and the global financial system. Participants build years of impeccable repayment behaviour that no lender can verify and no institution recognises.

This paper describes the **Circl Protocol**, a non-custodial coordination layer for community savings participation. Circl translates verified participation history — contributions made, governance roles served, payouts received and continued, disputes resolved, endorsements received — into a portable, cryptographically verifiable credential the member owns and controls.

The protocol does not custody funds, issue credit, or operate as a financial institution. It provides infrastructure: a coordination layer for members to govern themselves, an identity verification framework that binds participation to real human identity, a cryptographic verification system that turns a participation record into legally defensible evidence, and an API surface through which banking partners can read these credentials with member consent. The protocol also coordinates community-internal lending pools (LLPs) and cross-circle peer lending networks (the CLP) where circles collectively support one another, with regulated third-party lenders available as a fallback path where community capacity is insufficient.

The result is a new class of financial-identity primitive: a participation credential that compounds over time, travels with the member across circles and jurisdictions, and becomes readable to the formal financial system. For the participant, this is the first time their lived discipline becomes a recognised asset. For lenders, it is alternative credit data on a population whose financial behaviour has historically been invisible. For the cash economy, it is a bridge.

> **POSITIONING**
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> Circl is a non-custodial coordination protocol. It does not hold, move, or custodies member funds; members make all financial decisions. Circl provides the infrastructure for community-governed participation, the credentialing layer that translates that participation into a portable member-owned trust identity, and coordination layers for community-internal and cross-circle mutual aid — never originating credit or holding funds itself.

CHANGES IN VERSION 1.3

Version 1.3 introduces a structural reframing and four substantive additions to the version 1.2 text. The reframing is conceptual: where versions 1.0 through 1.2 described the protocol first and the economic model second, version 1.3 makes explicit that the protocol functions because community-builders operate it. The treasurer is not a peripheral feature of Circl; the treasurer is the operating layer of Circl. This reframing surfaces throughout the document but is most concentrated in the new Section 5A (Three-Stakeholder Model) and the substantially expanded Section 18 (Governance and Treasurers, with

the full Community Growth Program architecture).

The four substantive additions: First, a complete description of the **Community Growth Program** — the partnership programme through which treasurers participate in the value they help create — including activation bonuses, tiered residual earnings, retention and health bonuses, the five Identity Levels (Community Builder through Circl Ambassador), and the monthly fee netting mechanism. Second, a complete **revenue architecture** covering all fourteen revenue streams with base-case three-year trajectory (Section 14A). Third, the **AI Assist** three-tier framework (Basic, Enhanced, Enterprise) with explicit regulatory boundaries (Section 12A). Fourth, the **mobile applications and phased development** strategy across iOS, Android, and the admin portal (Section 20A).

Where v1.2 added the phased custody framework (treasurer-held → escrow-mediated → hybrid steady state) and codified the Circl/circle terminological discipline, v1.3 completes the picture by adding the human and economic infrastructure that makes the phased framework operational. The v1.2 content is preserved; v1.3 additions appear as new sections marked with the suffix "A" (Section 5A, 12A, 14A, 18A, 20A) and as expansions to Sections 8, 13, and 23. Appendix A is extended with v1.3 glossary terms. The v1.0, v1.1, and v1.2 editions are superseded.

About the Author

Drew St'Clair is the founder of Circl and the principal author of this paper. He is a Barrister of the Bar of England and Wales (Honourable Society of the Middle Temple) and an Attorney-at-Law of the Supreme Court of Judicature of Jamaica, with active practice spanning commercial, regulatory, and dispute-resolution work in both jurisdictions. He is resident in Kingston, Jamaica.

The thesis of this paper — that community savings participation, properly verified and credentialed, is behavioural financial data of equal or greater predictive value than the data credit bureaus already use — is informed by direct legal practice in two jurisdictions where the gap between the cash economy and the formal financial system is most visible. In Jamaica, pardna is the savings mechanism used by the majority of working adults; the disconnect between that lived discipline and the thin credit files those same adults present to NCB, JN, and the country's other lenders is not a theoretical observation but one encountered repeatedly in professional practice. In the United Kingdom, the diaspora dimension of the same problem — Caribbean-origin and African-origin nationals supporting family members in their countries of origin and building informal savings histories that British lenders cannot read — is equally visible.

The protocol described in this paper is intended to address that gap as infrastructure rather than as advocacy. The author's regulatory experience across Jamaica and the United Kingdom, alongside his work as principal of an operating Jamaican business, informs a design philosophy that takes the regulatory frame seriously while remaining grounded in the practical economics of the communities the protocol is intended to serve. The non-custodial commitment, the tier-graded identity framework, and the partner-led approach to regulated lending described in later sections of this paper are not architectural abstractions; they are the outcome of considered analysis across two regulatory systems and the practical experience of operating businesses in jurisdictions where formal and informal finance coexist.

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Contents

1. Executive Summary

The problem.

Approximately one billion people worldwide participate in rotating savings and credit associations — community-organised savings circles where members contribute fixed sums on a regular schedule and take turns receiving the pooled total. These systems predate formal banking and remain the dominant savings mechanism in much of the Caribbean, sub-Saharan Africa, Latin America, South and East Asia, and the diaspora communities those regions seed. They function reliably because they are governed by trust, social accountability, and direct community oversight. Yet to formal finance — banks, credit bureaus, mortgage underwriters, microlenders — the participants in these systems are invisible. A nurse in Kingston who has contributed two hundred US dollars every month for five years to her pardna has, in the eyes of a credit bureau, no financial history.

The thesis.

Participation history in a rotating savings circle is, in substance, behavioural credit data of higher fidelity than much of what credit bureaus already use. It shows contribution consistency under social accountability, governance participation, completion of obligations after receiving advances (the payout in a circle is structurally equivalent to a loan from the rest of the group, repaid through continued contributions across the remaining months), and dispute resolution within a community framework. The gap is not in the data — it is in the verification layer. There has been no infrastructure to translate this behaviour into a credential that formal finance can read.

The protocol.

The Circl Protocol is that infrastructure. It is a non-custodial coordination layer for community savings circles, paired with an identity verification framework, a cryptographic credentialing system, an API surface for banking partner integration, and coordination layers for community-internal and cross-circle mutual aid. The protocol does not custody member funds, does not originate credit, and does not operate as a financial institution. It provides only the tools members and their communities need to govern themselves, the credentialing layer that translates that governance into a portable member-owned trust identity, and the coordination infrastructure that allows circles to support one another through community-internal and cross-circle lending — with regulated third-party lenders available as a fallback where community capacity is insufficient.

Four design principles.

- **Non-custodial by construction.** The protocol never holds, moves, or custodies member funds. All financial decisions are made by members; the protocol facilitates coordination, voting, and audit. This is enforced at the architectural level, not merely as policy. The lending layers preserve this commitment by operating as coordination over either community resources directly or regulated lending partners that bear the regulatory burden.
- **Member-owned identity.** Every trust credential is owned by the member to whom it pertains. The member controls when, with whom, and for what purpose the credential is shared. Revocation is one-tap and effective immediately. Every access is logged and visible to the member.

• **Verifiable without trust in the issuer.** The credentialing system is built on open algorithms (RFC 8785 JSON canonicalisation, HMAC-SHA256 signing). A counterparty holding an archived credential and the issuer's signing key can verify authenticity independently — even if the protocol operator ceases operations. The credential is evidence, not a service.

• **Community before third party.** Where members or circles require support beyond their own resources, the protocol's order of preference is deliberate: internal mutual aid first (the Local Lending Pool within a single circle), cross-circle community support second (the Central Lending Pool across the network), and regulated third-party lending only where the community-internal pathways cannot meet the need. The protocol is, first and foremost, infrastructure for communities to support themselves.

The trust report.

The protocol's primary credential output is the *trust report*: a canonicalised, cryptographically signed record of a member's participation history across all circles they belong to. The report includes a composite trust score, qualitative reputation ratings, borrowing-and-repayment history (each payout received and the corresponding continued contribution behaviour across the remainder of the cycle), governance participation, dispute history with outcomes, community endorsements, and a complete identity verification block binding the record to a real, government-verified human. Every report is rendered from canonical JSON, signed with the protocol's signing key, and verifiable via a public endpoint or directly by a counterparty holding the key.

Cross-border as the principal commercial layer.

The protocol distinguishes between domestic participation (free of charge, supporting the largest population of community savers) and cross-border participation (subject to a paid Pro tier on the cross-border party's side). Cross-border activity — a diaspora member sponsoring a relative in their country of origin, or participating in a circle whose primary jurisdiction differs from the member's residence — triggers higher regulatory obligations, requires Enhanced identity verification on both parties, and unlocks the portable credential export functionality. This split aligns the protocol's commercial model with the actual cost structure of compliance and creates a sustainable path to operating the free domestic layer at scale.

Community lending coordination.

The protocol introduces two coordination layers for community lending: a Local Lending Pool (LLP) operating within a single circle for member-to-member short-term support, and a Central Lending Pool (CLP) operating across circles for inter-community mutual aid. Both layers preserve the non-custodial commitment: funds flow directly between circle treasurers (or via partnered payment rails); the protocol provides the voting, governance, trust-report-based risk visibility, and repayment tracking that make community-scaled lending operationally viable. Where the network's collective capacity is insufficient or unwilling, the protocol introduces the borrower to a regulated third-party lending partner as a fallback.

The lender API.

The protocol exposes an API through which banking partners — and, importantly, the regulated lenders who participate in the CLP fallback path — can verify trust credentials and, with explicit member consent, request fresh credential issuance. The API is the mechanism by which the credential becomes operationally useful — a microlender can verify in milliseconds that a presented trust report is authentic, current, and not revoked. Banking partners are gated by signed agreements, audit logging, and per-request member consent verification.

Conclusion of the executive summary.

The protocol described in this paper is intended to do for community savings what rent reporting did for renters and what open banking did for transactional history: convert a previously invisible financial behaviour into an asset the participant owns and can deploy. The cash economy is not a niche; it is the financial system used by the global majority. Building infrastructure that respects how that system actually works — community-governed, trust-based, locally accountable — and translates its discipline into formal recognition is, in our view, among the more meaningful infrastructure problems remaining to be solved in financial services.

2. The Problem: Invisible Discipline in the Cash Economy

Formal credit infrastructure — the bureaus, scoring models, and underwriting frameworks that dominate consumer lending in developed economies — was designed around a particular set of behaviours: revolving credit accounts, mortgage and auto repayments, card balances, and the timely service of those obligations. Where these signals are present, the underwriting machinery works well. Where they are absent — or where they exist in forms the machinery cannot read — the entire population behind those gaps is treated as unscorable, thin-file, or high-risk.

This is not a marginal population. The World Bank's most recent Global Findex estimates that approximately 1.4 billion adults remain without access to formal banking, with many billions more whose banking relationships are too shallow to generate the data credit bureaus require. Of these, an estimated 800 million to 1 billion participate in rotating savings and credit associations — the ROSCAs known regionally as pardna, susu, tanda, chama, ajo, hui, kye, ekub, and other names. These associations operate at scale, with discipline, and over multi-year horizons. They predate every fintech, every credit bureau, and most central banks. And they remain invisible to all of them.

2.1 ROSCAs across the global south and diaspora

A rotating savings and credit association is, in its simplest form, an agreement among a fixed group of members to contribute a fixed sum at fixed intervals — typically monthly, sometimes weekly — and to take turns receiving the pooled total of those contributions on a rotation schedule agreed by the group. A pardna of twelve members contributing two hundred US dollars monthly produces a pool of two thousand four hundred dollars each month, paid to one member; over twelve months, every member receives exactly what they contributed, but with the timing of receipt shifted to whichever month matched their position in the rotation.

The mechanism is older than recorded finance. It exists, with structural variations, across nearly every culture that has organised communal economic life. What is remarkable about it is its reliability. A pardna depends on every member continuing to contribute through the entire cycle, including the months following their own payout. There is no central authority enforcing this; there is only social accountability, the treasurer's tracking, and the implicit understanding that defaulting damages the member's standing in the community in ways that cost far more than the missed contribution. Default rates in well-functioning ROSCAs are typically below one percent. By comparison, U.S. credit card default rates have ranged from two to five percent in recent years; subprime auto loan defaults exceed ten percent.

The participants in these systems are not casual savers. They are nurses, hairdressers, small business owners, teachers, mechanics, restaurant workers, market vendors, domestic workers, and a long roster of other occupations whose income may be modest but whose financial discipline is, by the structural evidence, exceptional. In the Caribbean, in West and East Africa, in Latin America, in parts of South and Southeast Asia, in the immigrant diasporas those regions have produced — community savings circles are not a backup; they are the primary savings infrastructure used by the majority.

2.2 The visibility gap and its cost

The cost of this invisibility is borne entirely by the participant. A Jamaican nurse applying for a mortgage at NCB Capital Markets brings with her, on paper, what credit bureaus call a thin file. Her actual financial history — five years of impeccable monthly contributions to pardnas, two completed governance terms as treasurer, no defaults, no late payments — exists only in her treasurer's notebook and the memories of her circle. The bank's underwriting model cannot read it. The loan officer cannot verify it. Her actual reliability is materially indistinguishable, from the bank's perspective, from someone who has saved nothing.

A Nigerian software engineer eighteen months into a relocation to the United States faces the same problem with U.S. credit cards. A Mexican factory worker applying for a small business loan in Texas faces it with the SBA. A Kenyan teacher in the UK faces it with British high-street banks. The pattern is the same: behaviour that should qualify them, invisible to the systems that decide whether they qualify.

The consequences compound. Without recognised credit history, applicants pay higher interest rates when they can get credit at all, are denied housing rentals where landlords screen, accept worse insurance terms, and miss opportunities that depend on demonstrated financial discipline. A behavioural asset they have built — sometimes over decades — is unable to perform the work it should be able to perform.

> *"Other pardna apps help you manage your circles. Circl turns your circles into something the world can verify."*

2.3 Why existing fintech does not solve this

Several categories of fintech have attempted, in different ways, to address pieces of this gap. None has resolved it.

ROSCA management apps.

A growing category of fintech (in Jamaica: PardnaPlus; in Nigeria: PiggyVest, Cowrywise for some products; in Egypt: MoneyFellows; globally: Tanda) offers smoother UX for running a circle than the WhatsApp groups and treasurer notebooks they replace. These tools are useful, and their proliferation is evidence of real demand for digital coordination. But they compete on UX and convenience; they do not produce a credential that travels outside the platform, nor do they bind their participation records to verified identity in a way a bank can read.

Rent reporting and alternative-data bureaus.

Companies such as Esusu (rent reporting), Petal (cash-flow underwriting), TomoCredit (banking-based credit scoring), and others have demonstrated that alternative data can be successfully converted into recognised credit signals. Their model is structurally compatible with what this paper proposes; the limitation is data scope. Rent reporting captures one payment stream. Banking-based scoring captures transactions that have already entered the formal system. Neither captures the community-governed savings behaviour that is, for much of the global population, the most significant ongoing financial activity in their lives.

Open banking aggregators.

Plaid, TrueLayer, Mono, and similar open-banking infrastructure providers expose transactional data with member consent. Where the underlying transactions flow through a formal bank account, this works. Where they do not — where contributions move through cash, mobile money, or peer-to-peer transfers that resist clean categorisation — open banking data is silent on what is happening.

Microfinance and group lending.

Microfinance institutions, from Grameen Bank onward, have long recognised the creditworthiness signal embedded in group-based community accountability. The group lending model relies on it directly. But microfinance produces credit; it does not produce a portable participant credential that travels beyond the lender that issued the loan, nor does it document the years of pre-credit participation behaviour that preceded the loan.

What is missing is a layer that sits underneath all of these — an identity and credentialing primitive that documents community savings participation directly, binds it to verified identity, and produces a portable credential the participant owns. That is the gap the Circl Protocol is intended to fill.

3. The Thesis: Participation as Financial Identity

The central claim of this paper is straightforward. Participation in a rotating savings circle, when verified and properly credentialed, is a behavioural financial primitive of equal or greater predictive value than the behaviours that established credit bureaus already use. It is currently invisible not because it lacks signal, but because no infrastructure has translated it into a form the formal system can read.

Five characteristics make ROSCA participation an unusually high-quality credit signal:

Contribution consistency under social accountability.

A participant who has contributed every month for thirty-six consecutive months to a circle has demonstrated something distinct from a participant who has merely saved the same amount into a personal account. The circle participant has done so under the social cost of default — missing a contribution is not a private failure; it is a public one that damages standing among people the participant continues to interact with weekly. Behaviours performed under accountability predict future behaviour more reliably than behaviours performed in private. This is the same logic that makes group lending more successful than its individual counterpart in many contexts.

Repayment under advanced credit.

When a circle member receives their payout — particularly when they receive it early in the cycle — they are, in substance, receiving an advance from the rest of the group. The first member in a twelve-month pardna receives the full pool in month one and then contributes for the remaining eleven months. This is, structurally, a loan from the rest of the group, repaid through continued contributions. A participant who has received early payouts and continued to contribute on schedule has demonstrated repayment behaviour in conditions structurally identical to those a lender would assess. The borrowing-and-repayment record in a trust report makes this signal explicit and underwriteable.

Governance and treasurer service.

A participant who has served as treasurer of a circle has been entrusted by their peers with the responsibility of tracking contributions, organising the rotation, and managing disputes. This is a signal of trust held by peers who have direct knowledge of the participant's conduct. It is not equivalent to a self-declared resume; it is validated trust from people with material stake in being right about it.

Community endorsement.

Members of a circle can issue endorsements of one another — short, structured statements that recognise specific behaviours (reliability, leadership, accountability). Endorsements are issued by KYC-verified members, recorded as part of the issuer's trust record, and form an aggregate signal of community recognition that no individual self-declaration can replicate.

Dispute resolution within a community framework.

Where disputes arise — late contributions, governance disagreements, allocation concerns — they are resolved within the circle, by the circle, with records of the matter, the role each party played, and the outcome. A participant whose dispute history shows mediator roles and resolved outcomes is materially different from one whose record is silent. Silence in a dispute log is not the same as absence of disputes; for a long-tenured participant, the absence of any dispute filed against them across years of activity is itself a signal.

> **THESIS**
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> Participation in a rotating savings circle, properly verified and credentialed, is behavioural financial data of higher fidelity than much of what credit bureaus already use. The Circl Protocol is the infrastructure to translate it into a form the formal system can read.

4. The Circl Protocol — Architectural Overview

The protocol consists of six layers, each independently specified and each designed so that the layers above it can be replaced or extended without rewriting the layers below.

Layer 1 — Coordination.

The base layer is the coordination logic for community savings circles themselves. Members join circles, are assigned positions in the rotation, contribute on schedule, vote on governance matters, and receive payouts according to the circle's rules. This layer is non-custodial: the protocol does not hold member funds. Contributions flow directly between members under treasurer supervision in the beta phase, with subsequent phases supporting direct member-to-member payment rails through partnered rails (Stripe, regional mobile money operators, bank transfer) where the protocol facilitates but never custodies.

Layer 2 — Participation event ledger.

Every meaningful action a member takes within a circle — joining, contributing, contributing on time, casting a vote, completing a cycle, serving a treasurer term, receiving a payout, continuing contributions after a payout, issuing or receiving an endorsement, filing or mediating a dispute — is recorded as an event in an append-only participation ledger. This ledger is the substrate from which trust scores, qualitative reputation ratings, and credential outputs are derived. It is also the audit basis: any score the protocol produces can be traced back to its underlying events.

Layer 3 — Identity verification.

Every member is bound to a real, government-verified human identity through a three-tier KYC framework (Section 9). The identity verification provider is abstracted behind a stable interface that supports multiple back-end providers selected by the member's verified residence and document type. The protocol stores only verification results and document metadata; the raw documents themselves are held by the verification provider under their own compliance regime.

Layer 4 — Credential issuance and verification.

Trust reports — the protocol's primary credential output — are generated from the participation event ledger and identity verification records, serialised in canonical JSON form (RFC 8785), and signed with the protocol's signing key (HMAC-SHA256). Every report carries a content hash and signature. A public verification endpoint exposes a four-state response (valid, expired, revoked, invalid) to anyone presenting a report identifier and content hash. The credential is verifiable without trust in the protocol operator's continued service: a counterparty holding an archived report and the signing key can verify authenticity independently.

Layer 5 — Community lending coordination.

Two complementary coordination layers support lending without compromising the non-custodial commitment. The Local Lending Pool (LLP) operates within a single circle, allowing members to extend short-term support to one another using the circle's own resources. The Central Lending Pool (CLP) coordinates cross-circle peer lending, allowing a borrowing circle to access the collective capacity of other circles in the network that have voted to extend credit. Where community capacity is insufficient or unwilling, the protocol introduces the borrower to a regulated third-party lending partner who originates the credit and bears the regulatory burden. At every layer, Circl coordinates; Circl does not lend.

Layer 6 — Partner integration.

The Lender API allows banking partners — under signed agreements, with audit logging, and with per-request member consent verification — to verify presented credentials at scale and to request fresh credential issuance from members with whom they have established a relationship. The API is the integration surface for the regulated third-party lenders that operate at the fallback layer of the CLP and for any other financial counterparty (insurer, employer benefit programme, government entity) that consumes Circl credentials. The API is versioned, rate-limited, and built on the same open verification primitives as the public endpoint.

Each layer is specified independently. The coordination layer (Layer 1) could in principle operate without the credentialing layers (Layers 4-6) — many members will simply use Circl to run their circles and never export a credential. The credentialing layers cannot operate without the lower layers, but they are not the protocol's only purpose. The architectural separation matters because it gives the protocol multiple modes of use: a coordination tool, a credentialing system, a community lending facilitator, or any combination.

5. Non-Custodial Coordination Model

The single most important architectural commitment of the Circl Protocol is that it is non-custodial. The protocol does not hold, move, or custody member funds. It is not a wallet. It is not an escrow service. It is not a payment institution. It does not issue credit, including in the LLP and CLP lending coordination layers described in Section 13. It does not act as a financial intermediary in any sense that would subject it to the regulatory regimes governing those activities.

This is not a policy choice that could be reversed. It is the architectural foundation from which the rest of the protocol follows.

Why non-custodial.

Three reasons, in descending order of importance.

First, custody changes the regulatory category entirely. A custodial protocol facilitating contributions, payouts, or lending across jurisdictions would, in nearly every regulatory regime, qualify as a money services business, payment institution, or credit institution. In the United States, this would require state-by-state MTL registration plus federal MSB registration and, for lending, state lending licences. In the UK, FCA authorisation as a payment institution or consumer credit firm. In Jamaica, Bank of Jamaica licensing under the relevant supervisory regime. In the EU, AMLD6 obligations plus the credit institution authorisation framework. The compliance cost is substantial and the operational complexity even more so. By remaining non-custodial, the protocol operates within a narrower regulatory perimeter while still providing meaningful infrastructure.

Second, custody changes the trust model in a way that undermines the protocol's fundamental thesis. The thesis is that community-governed savings work because they are community-governed; the participants trust one another and hold one another accountable. A custodial protocol inserts an intermediary trust requirement: now participants must also trust the protocol operator with their funds. This is a weakening of the model, not a strengthening of it. The most reliable ROSCAs are those where the trust is held among the participants themselves; the protocol's job is to facilitate that trust, not to substitute for it.

Third, custody creates a single point of failure that the protocol should not create. A custodial protocol that fails, is hacked, or has its assets frozen takes every member's funds with it. A non-custodial protocol that fails, is hacked, or ceases operations leaves member funds where they always were — with the members, their treasurers, the partnered payment rails they directly use, and (in the CLP fallback layer) the regulated third-party lenders operating under their own regulatory supervision. The blast radius of any protocol failure is bounded to the credentialing layer, not the financial layer.

How non-custodial is enforced.

In the beta phase, circles operate on a treasurer-managed model: contributions flow to a treasurer who tracks them, the treasurer organises payouts according to the circle's rotation, and the protocol provides the coordination and audit infrastructure. The treasurer is a member of the circle, not an agent of the protocol; their fiduciary relationship is to the other members, not to Circl. The protocol surface to the treasurer is a tracking, voting, and audit interface — not a wallet.

In subsequent phases, member-to-member payment flows can be facilitated through integration with partnered payment rails — Stripe, regional mobile money operators, bank transfer APIs — where the protocol provides the coordination signal (whose turn, what amount, by when) and the rail moves the money directly between members. The protocol never appears in the flow of funds. Even in this phase, the architectural commitment is preserved: at no point are funds held in a Circl account.

Sponsorship and lending: the same architectural rule.

Two features in the protocol involve orchestrated payment flows beyond the basic circle rotation: Pro-tier sponsorship (one member paying another member's contributions) and the lending coordination layers (LLP and CLP). In both cases, the architecture preserves the non-custodial commitment in the same way: payment instruments are charged or debited at the source; funds are transferred directly to the receiving party (the recipient's circle treasurer in sponsorship, the borrowing circle in lending) through partnered payment rails or, in the CLP fallback path, by the regulated lender to the borrower. Funds at no point sit in a Circl balance. The protocol's role across all these features is identification, instruction, and recording — never custody.

> **ARCHITECTURAL COMMITMENT**
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> The Circl Protocol is non-custodial by architectural construction. Every payment-orchestrating feature — sponsorship, the Local Lending Pool, the Central Lending Pool, and the regulated lender fallback — is structured so that funds never sit in a Circl account. Members and their circles remain the only custodians of their own funds; where regulated lenders participate, they custody under their own regulatory supervision.

5A. The Three-Stakeholder Model

Most financial technology platforms describe themselves in terms of two stakeholders: the operating company that provides the service and the users who consume it. Revenue flows from users to operating company; product flows in the opposite direction. This model has produced successful platforms but rarely produces durable communities. Users are acquired through paid marketing — expensive and transactional. They have no stake in the platform's success after signup. The economic relationship is one-directional and short-lived.

Circl is structured differently. The platform has three stakeholder classes, each with distinct economic relationships and ongoing alignment with platform success.

Stakeholder 1 — Members.

Individuals who participate in community savings circles, build trust profiles, and benefit from coordinated saving and reputation infrastructure. Members pay for premium features (Pro subscription at £29 per month) and access trust-related products (Trust Reports, AI Assist) at the level appropriate to their needs. The majority of members use the free tier; those who derive sustained value upgrade to Pro for portable identity, sponsorship capability, and cross-border participation. Members are the population the protocol exists to serve.

Stakeholder 2 — The Operating Company.

Circl Technology Limited (Jamaica) and Circl Technology Ltd (United Kingdom) operate the protocol, provide the technical infrastructure, ensure regulatory compliance, and maintain the brand. The operating company is funded primarily through coordination fees from active circles and subscription revenue from premium members, supplemented by Lender API revenue, Enterprise tier subscriptions, and the marketplace described in Section 15. The operating company's commercial sustainability is not in tension with the members' interests — it depends on continued member trust and growing platform utility.

Stakeholder 3 — Treasurer Partners.

Community members who administer circles for other members, hold contributed funds during cycles, coordinate disputes, and grow the platform through their existing community relationships. Treasurer Partners earn from the platform through the **Community Growth Program** — activation bonuses, tiered residual earnings, and recognition through Identity Levels — described in detail in Section 18A.

This third stakeholder class is the architectural distinction that defines Circl. The treasurer is not a marketing channel hired temporarily; the treasurer is a permanent participant in the value they help create. Their economic interests are aligned with platform success in ways advertising-funded fintechs cannot replicate. Treasurer Partners are also the layer that makes the protocol regulatorily defensible. Because the operating company does not custody member funds — the treasurer does, under the Phase 1 model described in Section 5 — Circl avoids classification as a money services business in most jurisdictions.

THE PARTICIPATION ECONOMY

Three stakeholders, three relationships, mutually reinforcing. Members participate; treasurers build communities and administer circles; the operating company provides infrastructure. Each stakeholder shares in the value the system creates. The participation economy is not rhetorical — it is the structural commitment that makes the protocol durable.

6. How Members Join Circles

A protocol whose value compounds with participation depends critically on how new members enter that participation. The current section describes the three pathways through which members join circles. The pathways are not equivalent; each carries different trust assumptions, different verification requirements, and different implications for the receiving circle's risk posture. The protocol supports all three, with the appropriate safeguards in each.

6.1 Treasurer-created circles

The first pathway, and the one with the longest pedigree, is the treasurer-created circle. A member who has the standing and the willingness to organise takes on the treasurer role, creates a circle in the protocol, and invites other members individually. The invited members are typically known to the treasurer — colleagues, extended family, members of a church or association, neighbours of long acquaintance — and the trust relationships among them precede the protocol. The treasurer's role in this pathway is to provide structure for trust that already exists.

This is the pathway closest to traditional pardna formation and remains the dominant mode in the protocol's initial phases. Treasurer-created circles benefit from the lowest friction at member onboarding: the treasurer vouches for each invitee at the time of invitation, and the invitee accepts on the basis of an existing relationship with the treasurer rather than on the basis of trust placed in the protocol. The protocol's role here is administrative: tracking, voting, dispute facilitation, and credentialing the outcomes.

6.2 Discovery and application

The second pathway opens the network beyond pre-existing relationships. A member who has not been invited to any circle can discover open circles through the protocol — circles whose treasurers have indicated openness to applications from members they do not personally know. The discovering member submits an application; the treasurer (and, optionally, the existing members of the circle, depending on the circle's governance settings) reviews the applicant's trust profile, identity verification level, geographic alignment, and stated reason for joining; an acceptance or decline is recorded with optional reasoning visible to the applicant.

The discovery pathway is the principal growth mechanism for the protocol beyond word-of-mouth referral. It is also the pathway with the highest trust burden, because the receiving circle is being asked to admit a member they do not personally know. The protocol's mitigations are several. First, only members with verified identity at Tier 1 or higher can apply through discovery — anonymous applications are not supported. Second, the receiving treasurer and members have access to the applicant's existing trust profile, including any prior cycle completions, endorsements, and dispute history; the applicant is not a black box. Third, the protocol's matching layer (described next) can be used to surface only circles where the applicant's profile is a reasonable fit, reducing wasteful applications.

Critically, the discovery pathway preserves the receiving circle's autonomy. The treasurer and members retain absolute discretion to accept or decline applicants for any reason. The protocol does not compel admission. The design intent is to expand the population of possible members without overriding the

community-governance prerogative that makes circles work.

6.3 Matching by the protocol

The third pathway is matching: members who wish to join a circle but who do not have access to a treasurer they know and do not wish to apply individually to discovered circles can request to be matched into a forming circle by the protocol's matching layer. The protocol surfaces compatible members based on stated contribution capacity, geographic alignment, language preference, and (optionally) shared community ties or institutional affiliations declared by the participant. When a sufficient group of compatible members has accumulated, the protocol forms a new circle, designates an initial treasurer from among the participants (or appoints a Business-tier treasurer-as-a-service where available), and the cycle begins.

Matching is the pathway that scales the protocol to populations who lack social infrastructure for traditional pardna formation. A recent immigrant in a new city, a remote worker without local community ties, a young adult without family-pardna exposure — these are members for whom the discovery pathway is also high-friction because they may not recognise which open circles to apply to. Matching brings them into the system with substantially lower onboarding cost.

The protocol's matching algorithm is intentionally conservative. It produces candidate matches; it does not auto-form circles. Members who are matched together are introduced to one another, given the opportunity to communicate within the protocol's structured interaction surface, and asked to confirm their willingness to participate before the circle is created. The matching layer is a discovery mechanism, not a coercive one. Members may reject matches; matches may dissolve before formation; and members retain the option to fall back to the discovery or treasurer-creation pathways at any time.

> **JOINING PATHWAYS**
>
> Three pathways exist for joining circles: treasurer-led invitation, member-initiated discovery, and protocol-mediated matching. The first preserves traditional pardna formation; the second extends the network beyond pre-existing relationships; the third scales the protocol to populations without inherited community savings infrastructure. All three preserve the receiving circle's autonomy to accept or decline.

7. The Trust Report: A Verifiable Participation Credential

The trust report is the protocol's primary credential output. It is a structured document that represents, at a point in time, a member's verified participation history across all circles they belong to, the identity verification status that binds the record to a real human, and the cryptographic signature that allows any counterparty to verify the document was issued by Circl and has not been modified.

The report exists in two forms. The canonical form is a JSON document, deterministically serialised per RFC 8785, signed with the protocol's signing key. This is the source of truth. The presented form is a PDF rendered from the canonical JSON, designed for human inspection — by a member sharing the report with a lender, by an underwriter reviewing it, by a regulator examining it. The PDF and the JSON are derived from the same source; the signature applies to the canonical JSON; the PDF carries the report identifier and content hash so that a verifier can compare the PDF against the authoritative canonical form.

7.1 Schema and content

A trust report contains, at version 1.1.0:

- **Report identity and lifecycle.** Schema version, report identifier, issuance timestamp, expiry timestamp, issuer, issuer jurisdiction.
- **Member identity.** Member identifier, display name, verified residence, membership start, verification level, classification (New Participant, Active Member, Trusted Contributor, Community Builder, Pillar), standing, active circles count.
- **Trust score.** Composite 0-100 score, breakdown across five dimensions (on-time contribution rate, governance participation, contribution consistency, cycle completion rate, endorsements received), and six qualitative reputation ratings.
- **Participation summary.** Cycles completed, total contributions, aggregate contributed amount (in member's home currency and USD equivalent), treasurer terms served, defaults.
- **Borrowing and repayment history.** Each payout received as a borrowing event, with position in cycle, payout date, amount, repayment progress, and status. Aggregate repayment completion rate. Where the member has participated in LLP or CLP transactions, those events are also recorded in this section.
- **Disputes.** Full dispute history with the member's role (respondent, filer, mediator), matter, and outcome.
- **Endorsements.** Up to three peer endorsements with the endorser's display name, quote, circle context, and date.
- **Participation journey.** Chronological list of milestones from first circle join through classification advancement.
- **Identity verification.** KYC level achieved, verification date, expiry, provider, verified attributes (legal name, date of birth, document authenticity, biometric liveness, face match, address, sanctions and PEP screening), and document summary (type, issuing country, last four digits, expiry).

• **Member consent metadata.** Issuance authorisation, declared purpose (optional, member-specified), audience scope, revocability.

7.2 Borrowing and repayment record

The borrowing and repayment section is, for lender audiences, the single most underwriting-relevant component of the trust report. It represents each payout the member has received as a structurally analogous credit event and records the member's continued contribution behaviour across the remainder of the cycle.

Consider a twelve-member pardna with monthly contributions of two hundred US dollars, in which a particular member holds position six in the rotation. In month six, that member receives the pool of two thousand four hundred dollars. From their perspective, they have paid in twelve hundred dollars (months one through six) and received twenty-four hundred dollars — a net advance of twelve hundred dollars. To complete the cycle, they must continue contributing for the remaining six months, paying an additional twelve hundred dollars. This is the structural equivalent of a one-thousand-two-hundred-dollar interest-free loan with a six-month repayment term, granted under community accountability.

The trust report records, for each advance: the circle context, the member's position in the rotation, the date the payout was received, the USD-equivalent amount, the subsequent repayment progress (contributions made versus contributions required), and the status (repaid in full, on schedule, currently contributing pre-payout). The aggregate row at the bottom of the section summarises total advances received, total amount, overall repayment completion rate, and the count of defaults and late repayments. A member with multiple completed cycles and a 100% completion record has, in this section, what is in substance a behaviourally-validated credit history.

Where the member has participated in LLP or CLP transactions (Section 13), those events also appear in this section, with the additional metadata appropriate to their structure: the lending circles or pool counterparties, the agreed terms, the repayment progress, and the resolution status. The borrowing-and-repayment section is therefore the unified record of every credit-equivalent transaction the member has participated in across the protocol.

7.3 Dispute history and outcomes

Every dispute that arises in a circle the member participates in is logged: the date, the circle, a short description of the matter, the member's role (respondent, filer, or mediator), and the outcome (resolved, withdrawn, escalated, pending). The trust report shows the full record, not a summary; the summary view (disputes filed against, disputes filed by, disputes mediated, and resolution rate within community process) accompanies the detailed entries.

The dispute section is consequential because it differentiates a member who has never encountered conflict from a member who has encountered conflict and managed it well. A treasurer who has mediated two disputes to clean resolution and never had a dispute filed against them is, all else equal, a more credible governance participant than one whose record is simply silent. For lender audiences, the dispute history is character data of a kind that credit bureaus cannot supply.

7.4 Endorsements and reputation

Endorsements are short, structured statements of recognition issued by one KYC-verified member to another. They are not arbitrary text; they are issued against a fixed vocabulary of recognised behaviours (reliability, leadership, accountability, community contribution, and related categories), each carrying a brief peer quote. Endorsements are publicly visible within the circle that scopes them and, with member consent, across the network. They are revocable by the issuer at any time.

The aggregate endorsement count contributes to the composite trust score. Beyond that, the qualitative content of endorsements — the actual words peers have written about a member — appears in the trust report itself, three at a time, with circle context and date. For an underwriter or counterparty reading the report, the endorsements function the way letters of reference function in other professional contexts: independent third-party recognition that is harder to manufacture than self-declaration.

8. Cryptographic Verification and Integrity

A trust report is only as useful as its verifiability. A document that cannot be verified is a marketing artifact; a document that can be verified, by anyone, against open algorithms, becomes evidence. The protocol's cryptographic verification layer is therefore not a feature; it is the property that turns the trust report from decoration into a credential.

8.1 Canonical JSON serialisation

Every trust report has a single, canonical JSON form. The canonicalisation follows RFC 8785 (the JSON Canonicalization Scheme, JCS): keys sorted lexicographically at every depth, no insignificant whitespace, UTF-8 encoded, numbers in canonical form. Two reports generated from identical inputs produce byte-identical canonical JSON, byte-identical SHA-256 content hashes, and byte-identical signatures. This determinism is what makes verification possible: any party holding the canonical JSON and the signing key can recompute the signature and compare it to the one in the report. Any divergence, in any field, in any character of any field, breaks the signature.

RFC 8785 is an open IETF standard. Implementations exist in every major language. The choice of an open standard, rather than a proprietary serialisation, is intentional: it ensures that anyone — a banking partner, a regulator, a member, an academic researcher — can verify Circl-issued credentials with off-the-shelf tooling and without dependency on Circl-provided libraries.

8.2 Two-stage signing

The signing process is two-stage. First, the SHA-256 hash of the canonical JSON is computed; this produces a content hash that is identical for identical inputs and that changes if any field of the report is modified. Second, the content hash is signed with HMAC-SHA256 using the protocol's signing key. The hash proves the content has not been altered; the signature proves the issuer is Circl.

Both algorithms are open, widely implemented, and well-analysed. Neither requires trust in the Circl operator's competence at cryptographic primitive design; both rely on primitives that have been studied by the cryptographic community for decades. The protocol contributes no new cryptography. The protocol's commitment is to use existing, trusted cryptography correctly.

The signing key is held in a hardware security module (or cloud-equivalent KMS) and never appears in application memory in plain form for longer than required to perform a single signing operation. Key rotation is performed annually with overlap windows to ensure previously-issued reports remain verifiable; a rotation event does not invalidate prior credentials.

8.3 Verification states and revocation

Anyone can verify a trust report by visiting the verification endpoint or, via the Lender API, by submitting the report identifier and content hash. The verification returns one of four states:

- **Valid.** The signature matches; the content hash matches; the report is within its expiry window; the report has not been revoked.

- **Expired.** The signature and content hash match, but the report's expiry date has passed. The recipient should request a fresh report from the member.
- **Revoked.** The signature and content hash match, but the member has explicitly revoked the report. The credential is no longer valid for use.
- **Invalid.** The signature or content hash does not verify. The presented document is not a Circl-issued credential, or has been modified since issuance.

Revocation is one-tap from the member's settings panel. The member can revoke a report for any reason or none. Revocation is effective immediately; the verification endpoint reflects the new state within seconds.

Verification of the credential does not require an active relationship with Circl. A counterparty in possession of an archived trust report (its canonical JSON) and the appropriate signing key can verify authenticity entirely independently. This is the property that makes the credential a long-lived asset rather than a service: even if Circl ceases operations, trust reports already issued remain verifiable by their holders. The continuity implications of this commitment are addressed in detail in Appendix D.

> **OPEN VERIFICATION**
>
> The verification layer is built on open algorithms — RFC 8785 canonicalisation, HMAC-SHA256 signing — so that anyone can verify a Circl-issued credential without dependence on Circl-provided libraries or services. The cryptographic property the protocol provides is integrity, not opacity.

9. Identity Verification (KYC) Framework

A trust report verifies participation. It does not, on its own, verify that the person presenting the report is the person whose participation it describes. Without an identity layer, the credential is forgeable at the human level even if its cryptography is perfect.

The protocol's identity verification framework is what binds participation to personhood. It is implemented through partnerships with established Tier 1 identity verification providers — globally recognised firms specialising in document authentication, biometric matching, and ongoing sanctions and politically-exposed-person monitoring. The protocol does not perform identity verification itself; it consumes the verification results of established providers, abstracted behind a stable interface so that providers can be added or replaced without affecting the rest of the system.

9.1 Three-tier model

Tier 1 — Basic Identity.

Required to join any circle and to make any contribution. Government-issued ID is uploaded and validated via the provider; the provider confirms the document is genuine and not expired, performs basic name and date-of-birth verification, and screens against international sanctions and PEP lists. Tier 1 permits domestic participation up to per-circle and per-month contribution caps.

Tier 2 — Enhanced Identity.

Required to generate exportable trust reports, to sponsor or be sponsored, to issue endorsements, to participate in cross-border circles, and to participate in CLP cross-circle lending transactions. In addition to the Tier 1 checks, the member performs a biometric liveness check and a face match against the ID photo. Address is verified — by document upload, by authoritative database lookup, or both. Continuous sanctions, PEP, and adverse media monitoring is enrolled. Tier 2 is the level at which the trust report becomes a substantively reliable credential bound to a specific human.

Tier 3 — Business / Institutional.

Required for organisations administering circles, issuing institutional endorsements, integrating with the protocol via the Lender API, or acting as a regulated lender in the CLP fallback path. Corporate documents are verified; beneficial ownership is identified and each beneficial owner holding twenty-five percent or more is KYC'd to Tier 2; tax identification is verified; authorised signatories are individually KYC'd to Tier 2. The entity is screened against sanctions, PEP, and adverse media at the entity and beneficial-owner levels.

9.2 Continuous monitoring

Identity verification is not a one-time event. Each tier carries a recheck cadence — twenty-four months for Tier 1, twelve months for Tier 2, twelve months for Tier 3 with additional recheck on any change in beneficial ownership. Failure to complete a recheck downgrades the member to the previous tier with reduced access until the recheck is completed.

In addition, every member at Tier 1 or higher is enrolled in continuous sanctions and PEP monitoring. Provider-side daily checks against OFAC, the United Nations consolidated sanctions list, EU sanctions, UK HMT sanctions, available regional lists, and PEP and adverse media databases run automatically. A hit triggers an immediate flag on the member's KYC state, suspension of sponsorship and lending initiation, and routing to a Circl compliance reviewer for disposition.

The protocol stores only verification results and minimum-necessary document metadata. Raw documents and biometric data are held by the identity verification provider under their own compliance regime. This separation has two important consequences. First, the protocol's data breach exposure is materially reduced. Second, member rights under data protection regimes (GDPR, UK DPA, Jamaica Data Protection Act) can be exercised against both the protocol and the verification provider; the responsibilities are clearly delineated in the consent flows the member encounters at the time of verification.

10. The Pro Tier: Portable Identity and Sponsorship

The protocol's free tier provides domestic participation in circles, basic identity verification, basic trust scoring visible to the member within their active circle, and the core coordination tools needed to run a pardna. For many members — and in absolute numbers, most members — the free tier is the entire product.

The Pro tier exists for two distinct member journeys. The first is the member who wishes to translate their participation into a credential they can deploy outside the protocol — for credit applications, housing rental, employment background checks, or any other context where a verified record of community-validated financial discipline is useful. The second is the member who wishes to support another member's participation by sponsoring their contributions, either across borders or within country.

Portable trust identity.

At Pro, the member's trust record becomes portable: exportable as a signed trust report, cross-referenced across all circles they have participated in (rather than scoped to a single circle), enriched with endorsement-issuance authority, and presented in the format banking partners can verify via the Lender API.

Sponsorship.

Sponsorship is a Pro feature on the sponsor's side. A sponsor offers to pay for another member's contributions to a specified circle; the recipient receives the offer and may accept or decline. If accepted, the sponsor's payment method is charged on the contribution schedule; the contributions are credited to the recipient, who remains the participant of record in the circle and the recipient of any payout. The trust identity that accumulates from the contributions belongs to the recipient, not the sponsor. The sponsor accumulates a separate *supporter* reputation visible on their own trust record.

Both parties must be at Tier 2 KYC for sponsorship to operate. Either party may revoke the sponsorship at any time, with effect on future contributions; past contributions stand.

Sponsorship is also the protocol's primary diaspora-to-home-country support mechanism. A Toronto-based Jamaican can sponsor her mother's pardna in Kingston, knowing the contributions are credited to her mother and the participation history is building an identity in her mother's name — useful to her mother for any future application to a Jamaican bank — while the Toronto sponsor accumulates a supporter record useful for her own credentialing.

Why the moat compounds.

The Pro tier creates network effects of an unusually durable kind. The longer a member participates, the more valuable their portable trust identity becomes — but they cannot take that identity to a competitor without losing the verified history behind it. The longer a sponsor sponsors, the more valuable their supporter record becomes — and the longer the sponsored party builds an identity under sponsored contributions, the more deeply both parties are embedded in the protocol. Each side of the relationship has compounding switching costs the other side cannot easily replicate.

11. Cross-Border Participation

Cross-border activity is the second principal axis of the Pro tier. Where domestic participation is supported on the free tier without restriction, cross-border activity requires Pro on the cross-border party's side. The trigger is structural, not demographic: it is the relationship between the member's verified residence and the circle's primary jurisdiction, rather than any property of the member's identity.

Cross-border activity is defined as any situation in which the member's verified residence country differs from the circle's primary jurisdiction, or, in the case of sponsorship, the sponsor's residence differs from the recipient's. Both fields are established through Tier 1 (or higher) identity verification; neither is self-declared.

Why cross-border carries different regulatory weight.

Even though the protocol is non-custodial, the facilitation of cross-border contribution coordination is a regulated category in nearly every relevant jurisdiction. The Financial Action Task Force Travel Rule applies to certain transfers above one thousand US dollars. FinCEN takes a position on when a platform facilitating cross-border value transfer crosses into MSB territory. State-by-state MTL licensing in the US presents an additional patchwork. The UK's MLR 2017 establishes payment institution thresholds. AMLD6 imposes EU-wide obligations.

The cost of compliance with this regulatory perimeter is meaningful and falls primarily on the cross-border party. By gating cross-border activity behind the Pro tier, the protocol aligns its commercial model with its actual cost structure: members whose activity creates the compliance obligation pay for the infrastructure that supports the compliance work.

The marketing positioning is simple and not, in our judgment, controversial:

> *"Save locally for free. Reach across borders with Pro."*

The framing is capability-led rather than identity-led. A diaspora-resident member who only ever participates in circles within their country of residence remains on the free tier. Diaspora membership in the protocol is not, in itself, a paid feature. Cross-border activity is.

12. The Lender API and Partner Integration

The trust report, in isolation, is a document a member can present to a counterparty. The Lender API is the mechanism that makes the credential operationally useful at scale. It allows banks, microlenders, credit unions, insurers, regulated lending partners participating in the CLP fallback layer, and other counterparties to verify presented credentials programmatically, to request fresh credentials from members with their consent, and to integrate the protocol's identity infrastructure into their own underwriting workflows.

The API is provided under signed partnership agreements that establish data use restrictions, audit cooperation requirements, breach notification obligations, and prohibited uses. Partners are onboarded through a manual process in the protocol's initial phases — basic KYC of the partner entity, regulator verification, signed terms — before they receive production API credentials. Sandbox access (with test reports) is available immediately to anyone wishing to evaluate the integration.

Verification.

The verification endpoint accepts a report identifier and (optionally) the content hash from the presented report and returns the four-state response described in Section 8. This call requires no member consent — the member has already shared the report URL with the partner, which constitutes the consent — and is rate-limited per API key.

Profile fetch.

Partners with an established relationship to a specific member can request the member's fresh trust profile — not just verifying the report they've already received, but obtaining an up-to-the-minute version generated at the moment of the call. This requires explicit member consent: the request triggers an in-app notification to the member explaining which partner is requesting access, the partner's stated purpose, and the requested scope.

This pattern — partner-initiated, member-approved, time-limited access — is structurally identical to OAuth grants and follows the same trust pattern.

Webhook subscriptions.

Long-running partner relationships can subscribe to webhook events for specific members, with the member's standing consent. Events include classification changes, dispute resolutions, KYC expiry, and similar material changes. The member can revoke the subscription at any time.

Audit logging on every request.

Every API call is logged with the partner identity, the member identity (where applicable), the endpoint, the result, and the timestamp. Members can see in their own settings panel which partners have accessed their data when.

Pricing.

The Lender API is offered to partners on a subscription plus per-call basis. The commercial model is intentionally aligned with usage volume. Over time, the Lender API is expected to be one of the protocol's principal revenue lines, alongside the Pro-tier member subscriptions and the marketplace fees described in Section 15.

12A. AI Assist — Three-Tier Framework

AI Assist is the layer that makes the protocol approachable. Members and treasurers can ask questions, receive analytical support, and get structured guidance — all powered by AI models from Anthropic, integrated into the platform's workflows. The integration is deliberate and tiered: different audiences receive different levels of analytical depth, with commercial pricing aligned to the cost of generating each tier's output.

The three tiers.

Basic AI Assist provides everyday operational help: treasurer guidance on bank account setup, member onboarding queries, contribution flow troubleshooting, dispute initial triage, and Trust Report basic explanation. Free users pay £3 per query; Pro users have unlimited access included in their subscription. Powered by Claude Haiku, the most cost-effective Anthropic model, Basic AI Assist runs at approximately 90% gross margin.

Enhanced AI Assist provides analytical depth: circle health analysis with written assessment, personalised treasurer coaching, dispute resolution mediation suggestions, member retention analysis, cross-circle benchmarking, Trust Report narrative generation, LLP borrower request analysis, CLP borrowing circle profile reading, and voting deliberation prompts. Pro users pay £7 per use or one Trust Credit; Business users have unlimited access. Powered by Claude Sonnet, Enhanced AI Assist runs at approximately 78% gross margin.

Enterprise AI Assist provides institutional analytics: portfolio analytics across many circles, aggregate default risk descriptors (at circle level, never at individual level), regulatory reporting drafts, cross-corridor compliance checking, and API-accessible AI for institutional partners. Business users pay £35 per use; Enterprise partners have unlimited access. Powered by Claude Opus for highest analytical quality, Enterprise AI Assist runs at approximately 77% gross margin.

The regulatory boundary.

A critical architectural commitment: **AI Assist provides information, not advice**. This is not just framing; it is structural. The system prompts that shape the AI's behaviour are constrained to describe options and trade-offs, surface relevant data, suggest considerations, and provide structured analysis. The AI is prevented from recommending specific actions, making credit decisions, issuing individual credit scores, predicting individual default, replacing the circle's voting process, making investment recommendations, or giving regulated financial advice.

Every AI response includes a disclaimer: "This is information, not financial advice. Decisions remain yours." The line is consistently descriptive, not prescriptive; analytical, not decisional. This is what keeps AI Assist within the regulatory boundary that lets Circl operate as a coordination platform rather than a regulated advisory firm. The boundary is enforced through system-level prompts, output review for sensitive contexts (LLP/CLP analysis, dispute mediation), and quarterly compliance review of AI behaviour in regulated areas.

Data handling.

When a member or treasurer interacts with AI Assist, their query is sent to Anthropic for processing, with relevant platform context (circle data, trust profile, transaction history) included where necessary. Anthropic processes the query and returns a response, which is delivered to the user through the platform. Anthropic does not use Circl member data to train their models — this is contractually specified. The protocol's AI usage is governed by the AI Usage Policy published at circlworld.com/legal/ai-usage.

> **AI ASSIST POSITIONING**
>
> AI Assist operates strictly on the descriptive side of the regulatory line. It provides information and analysis, never advice or decisions. The three-tier structure aligns analytical depth with audience need and commercial sustainability — Basic for free users (£3/query), Enhanced for Pro (£7/use), Enterprise for Business (£35/use), with each tier included unlimited at the next tier up.

13. Lending Pools: Community Mutual Aid at Scale

The protocol's coordination role extends beyond facilitating individual savings circles. Where members within a circle require short-term support beyond the circle's regular rotation — an emergency, a business venture, an unexpected expense — or where a circle as a whole requires support beyond its own resources, the protocol introduces two coordination layers that allow communities to provide for one another at scale. Both layers preserve the non-custodial commitment described in Section 5: Circl coordinates, votes, tracks, and credentials; Circl does not originate credit and does not custody lending funds.

The protocol's order of preference is deliberate. Where a member or circle requires support, the first recourse is the resources of the circle itself — the Local Lending Pool, described in Section 13.1. Where the circle's own resources are insufficient or where coordination across circles is preferable, the second recourse is the network of other circles through the Central Lending Pool, described in Section 13.2. Where the network's collective capacity is itself insufficient or unwilling, the protocol introduces the borrower to a regulated third-party lending partner — described in Section 13.3 — who originates the credit under their own regulatory supervision. The thesis of the protocol is that communities supporting one another is itself a financial primitive; the third-party path is the fallback, not the default.

13.1 The Local Lending Pool (LLP)

The Local Lending Pool is the simplest of the three lending coordination layers. It operates within a single circle, governed by the circle's existing voting mechanisms, funded by members of the circle from resources they themselves agree to commit. A member of the circle may request support from the pool; the circle votes on whether to extend it; if extended, the funds flow directly from the contributing members to the recipient through the circle's existing payment arrangement; repayment is tracked by the treasurer and recorded in the protocol's participation ledger.

The LLP is structurally equivalent to traditional community mutual aid as practised across pardna, susu, chama, and equivalent traditions globally. A circle may maintain a standing reserve allocated for mutual aid (funded by a small percentage of each contribution, or by member opt-in supplementary contributions), or it may raise mutual-aid commitments on a case-by-case basis when a request arises. The protocol supports both patterns and does not prescribe a particular model; the circle's governance settings determine which approach applies.

Three features make the LLP a genuine extension rather than a duplication of traditional mutual aid:

- **Governance with a complete audit trail.** Every request, every vote, every contribution into the pool, every disbursement, and every repayment is recorded in the protocol's participation ledger. The informal mutual aid that has always existed in well-functioning ROSCAs becomes legible — not to outside observers (the records remain internal to the circle by default), but to the participants themselves and to any future application that the circle elects to make of the record.
- **Trust-report integration.** A member's behaviour in LLP transactions — requesting, receiving, and repaying — accumulates into the member's trust record alongside their rotation behaviour. A member

who has been entrusted with LLP support and repaid reliably has demonstrated something distinct from a member who has only completed their rotation cycle; the trust report captures the distinction.

• **Standard-form agreements.** The protocol provides template agreements appropriate to the jurisdiction in which the circle operates — recording the parties, the amount, the repayment schedule, and the dispute resolution path. The agreement is between the borrowing member and the contributing members; Circl is not a party. The standard form reduces friction and provides legal clarity while preserving the community-internal character of the transaction.

Regulatorily, the LLP is the lowest-exposure of the three layers. Community-internal mutual aid among members of a defined group is recognised across nearly every jurisdiction the protocol operates in as a customary practice that does not require lending licences. The Jamaican Cooperative Societies Act, the UK's Co-operative and Community Benefit Societies Act, and equivalent frameworks across Caribbean and African jurisdictions all contemplate community mutual-aid structures as legitimate non-regulated activity. The LLP operates within this established frame.

13.2 The Central Lending Pool (CLP) as cross-circle peer lending

The Central Lending Pool is the protocol's principal innovation in community lending. It is not a custodial pool held by Circl — Circl never custodies the funds — but rather a coordination layer through which one circle can request support from the broader network of circles, and other circles can collectively elect to provide that support from their own resources.

The mechanism operates as follows. A borrowing circle (Circle A) identifies a need that exceeds its internal LLP capacity — for instance, a member's medical emergency exceeding the circle's reserve, or a community project the circle wishes to undertake that requires capital beyond its own pool. The circle, through its internal vote, formalises the request: amount, purpose, proposed repayment schedule, and the trust-report attestation that supports the request. The request is published to the broader network of circles in the relevant jurisdiction and language community.

Other circles in the network (Circles B, C, D, E, and onwards) consider the request. Each circle, through its own internal voting mechanism, decides whether to extend support and on what terms. A lending circle that elects to participate commits a stated amount from its own resources, on the agreed schedule and interest terms (which may be zero — community mutual aid often is). The aggregated commitments form the lending package available to the borrowing circle. Where the package meets or exceeds the requested amount, the lending circles transfer funds directly to the borrowing circle through the partnered payment rails; where it falls short, the borrowing circle may accept the partial amount, withdraw the request, or escalate to the third-party regulated lender pathway described in Section 13.3.

Repayment flows back from the borrowing circle to each lending circle on the agreed terms, again through the partnered payment rails. The protocol tracks the repayment progress and, on completion or default, records the outcome in the trust records of both the borrowing circle and each lending circle. A circle that has reliably repaid CLP loans accumulates a circle-level trust record distinct from but complementary to the trust records of its individual members.

Why this is structurally different from existing models.

Conventional peer-to-peer lending platforms intermediate loans between individual investors and individual borrowers; the platform operator is typically the originating or facilitating party and bears regulatory responsibility accordingly. The CLP is structurally different in three important respects.

First, the lending parties are circles, not individual investors. The decision to lend is made by the circle's collective governance, not by an individual seeking yield. The lending circle is risking its own collective resources on behalf of another community; the motivation is mutual aid scaled across communities, not personal return on capital. This is not a marketplace where lenders compete for yield; it is a coordination layer where communities support one another.

Second, both the borrowing and lending circles are subject to the same identity verification framework (Tier 2 KYC required for both treasurers and a majority of members of any participating circle), the same trust-report transparency, and the same dispute resolution infrastructure. The information asymmetries that plague conventional P2P platforms — where investors know little about borrowers and rely on platform-curated scores — are substantially reduced. A lending circle can see the borrowing circle's full record, the treasurer's individual record, the borrowing circle's previous LLP and CLP transactions, and the trust-report-based attestation supporting the current request.

Third, Circl is not a party to the loan. The loan is a contract between the borrowing circle and the lending circles, recorded in standard-form documentation appropriate to the jurisdiction, governed by the laws of the borrowing circle's jurisdiction. Circl's role is to provide the coordination infrastructure (the request surface, the voting interface, the trust-report integration, the repayment tracking) and to credential the outcomes (recording completion or default in the trust records of all parties). Circl is the registry and coordination layer, not the originator or intermediary.

Governance mechanics.

Each circle's participation in the CLP — whether as borrower or as lender — requires the circle's internal vote at the threshold the circle has established in its governance settings (typically simple majority or two-thirds, depending on the circle's preferences). The protocol does not impose a particular threshold; it provides the voting infrastructure and records the outcome.

A lending circle's vote authorises a specific amount, a specific recipient circle, specific terms, and a specific maximum exposure for the lending circle as a whole. The vote is recorded in the protocol's audit trail and forms part of the lending circle's institutional record. Where the vote authorises a contribution to a lending package and the package proceeds, the protocol triggers the payment instruction; the partnered payment rail moves the funds; the protocol records the outcome. Where the vote fails or the package does not proceed, no funds move and the borrowing circle is notified of the shortfall.

Why this matters strategically.

The CLP does something that no existing infrastructure does at scale. It allows communities to support one another financially across the boundaries of any single circle, on terms they collectively control, with the trust-report-based transparency that makes lending across communities — including communities that do not personally know one another — defensible. A circle in Kingston whose members face an emergency that exceeds their internal pool can receive support from circles in May Pen, Mandeville, and Spanish Town; or from circles in the Jamaican diaspora in London, Brooklyn, and Toronto; or from a combination. The support is community mutual aid at network scale.

This is also where the protocol's thesis — that community-validated trust is genuine financial-grade signal — is operationalised most directly. The CLP works only because the lending circles can rely on the trust records of the borrowing circle and its members. The trust-report infrastructure described in Sections 7 and 8 is not merely a credential the member presents to outside lenders; it is the substrate that makes inter-community lending possible at all.

> **THE CLP MODEL**
>
> The Central Lending Pool is a coordination layer for cross-circle peer lending, not a custodial pool. Circles collectively decide whether to extend support to other circles, on terms they control, using their own resources. Circl provides the voting, trust-report visibility, audit, and repayment tracking. Funds flow directly between circles through partnered payment rails. Circl coordinates; Circl does not lend.

13.3 Third-party regulated lender pathway

Where the network's collective capacity is insufficient or unwilling, or where the borrowing circle prefers a regulated counterparty for reasons of scale, speed, or terms, the protocol introduces the borrower to a regulated third-party lending partner. The third-party path is structurally similar to the Lender API integration described in Section 12: the regulated lender consumes the borrower's trust report (with member consent) as alternative credit data, evaluates the application against their own underwriting criteria, and either extends the loan or declines it on terms the lender determines.

The critical point is that the third-party lender — not Circl — originates the credit, custodies the loan funds, bears the regulatory burden, and holds the underwriting risk. Circl's role is the introduction (matching the borrower with an appropriate partner), the credential bridge (transmitting the trust report to the partner with member consent), and the post-disbursement record-keeping (recording the outcome of the loan in the borrower's trust record for future credentialing purposes).

Partners participating in the third-party pathway are regulated lenders in their operating jurisdictions: licensed microcredit institutions under the Jamaican Microcredit Act, FCA-authorised consumer credit firms or P2P platform operators in the UK, state-licensed lenders or licensed credit unions in the US, AMLD6-compliant credit institutions in the EU, and equivalent regulated entities in other jurisdictions. Their participation is governed by partnership agreements that establish data use, member protection, dispute resolution, and the audit cooperation requirements appropriate to regulated lending.

Circl earns revenue on the third-party path through one or both of two mechanisms: an introduction fee from the partner for successful loan originations and a per-verification fee for trust report consumption (the same Lender API pricing described in Section 12). Neither mechanism positions Circl as the lender; both align Circl's commercial incentive with the borrower's successful outcome.

13.4 Regulatory framing across jurisdictions

The three lending coordination layers map onto regulatory categories differently across the protocol's operating jurisdictions. Honest analysis follows.

Jamaica.

The LLP is recognised as community mutual aid and operates within the framework long established for pardna and equivalent practices. It does not require lending authorisation under the Microcredit Act or the Bank of Jamaica's supervisory regime. The CLP, operating as cross-circle coordination without Circl as a party to the loan, falls into the category of mutual-aid network coordination — analogous to the role a credit union league plays for its member credit unions — and does not require lending authorisation provided Circl does not originate, custody, or guarantee the loans. The third-party pathway operates through partners who hold appropriate authorisation under the Microcredit Act, the Bank of Jamaica's frameworks, or the Cooperative Societies Act as applicable. Circl's role across all three layers is consistent with the position of a non-regulated technology and coordination infrastructure provider.

United Kingdom.

The LLP falls within the unregulated community mutual-aid category, similar to the position of informal savings circles long recognised in UK Caribbean and African diaspora communities. The CLP requires careful analysis: FCA-regulated P2P lending under FSMA Article 36H captures platforms that operate electronic systems for arranging loans between investors and borrowers. The CLP's structural character — circles voting collectively to extend community support, with Circl not facilitating individual investor-borrower matches — places it outside the typical P2P platform definition, but the boundary requires careful drafting of the operating model and, in our view, proactive engagement with the FCA's Innovation Pathways or equivalent supervisory engagement before operating the CLP at UK scale. The third-party pathway operates through FCA-authorised counterparties and is regulatorily clean.

United States.

The US regulatory environment is the most demanding of the protocol's target jurisdictions for lending activity. Federal regulation (SEC where peer loans constitute securities, CFPB for consumer credit conduct, FinCEN for AML) layers over state-by-state lending licences. The LLP, as community-internal mutual aid among identified members, falls within the customary community practice framework and does not require federal or state lending licensure provided it remains genuinely community-internal and non-marketed. The CLP, in its cross-circle peer-lending form, is materially more exposed in the US than in Jamaica or the UK; the protocol's likely approach in the US is to operate the CLP through state-by-state licensed counterparty structures, or to limit the US CLP launch to jurisdictions where the regulatory framing is clearest, while operating the third-party pathway across the broader US market through licensed partner lenders. The US CLP launch is contemplated for Years 3-5 of the protocol roadmap (Section 20) for this reason.

European Union.

The European Crowdfunding Service Providers Regulation (ECSPR) governs platforms facilitating cross-border lending in the EU. The CLP would, if operated as an EU-resident service, require ECSPR authorisation. The protocol's likely approach in the EU mirrors the UK approach: proactive supervisory engagement before CLP launch, with the LLP operating within unregulated community mutual-aid frameworks from the outset.

Africa and Latin America.

Regulatory frameworks in West African (Nigeria, Ghana), East African (Kenya, Uganda, Tanzania, Rwanda), and Latin American (Mexico, Colombia, Peru) markets vary considerably. The protocol's expansion into these markets, anticipated in later phases, will be undertaken with explicit regulatory engagement in each jurisdiction before the CLP is launched in that market. The LLP, operating as community-internal mutual aid, is anticipated to be regulatorily benign in all of these markets — these are jurisdictions where pardna-equivalent practices are deeply rooted in customary law and recognised as legitimate.

Across all jurisdictions, the protocol's posture is one of proactive engagement with regulators rather than regulatory arbitrage. The CLP, in particular, is a genuinely novel coordination primitive; we expect it to invite supervisory scrutiny and we welcome that scrutiny. The architectural commitment that Circl does not originate credit, does not custody lending funds, and is not a party to lending contracts is what makes that scrutiny addressable; the protocol operates within recognised regulatory categories for non-custodial coordination infrastructure, even where the underlying mutual-aid activity is novel in its network-scale form.

14. Segments: Community, Business, and Enterprise Users

The protocol serves three distinct segments of user, each with different needs, different participation patterns, and different value derived from the infrastructure. The free, Pro, and Business tiers map onto these segments but do not define them exhaustively; the segments cut across pricing tiers in ways the present section makes explicit.

14.1 Community circle projects

The community segment is the protocol's foundational user base: individual members participating in circles for the purposes that have always animated rotating savings — household budgeting discipline, structured saving for foreseeable expenses (school fees, vehicle purchase, home deposit, religious observances, family obligations), and the social and cultural value of participation in a community institution.

Beyond the individual rotating savings purpose, the protocol supports several community circle structures that extend the basic pattern:

Mutual aid funds.

A community can form a circle whose explicit purpose is the maintenance of a mutual aid fund through the LLP mechanism described in Section 13.1. Members contribute on the rotation but also contribute additional sums (or allocate a fraction of their rotation contributions) to a standing reserve from which the community can draw in response to member emergencies — medical expenses, funeral costs, periods of unemployment, household crisis. Mutual aid funds have operated within Caribbean, African, and Latin American communities for generations; the protocol provides the governance and tracking infrastructure that allows them to operate at digital scale while preserving their fundamentally community-led character.

Education savings clubs.

A common pattern in Caribbean and African communities is the formation of circles whose rotation is timed to coincide with school fee deadlines. Members contribute monthly throughout the year; the rotation payouts arrive in time for school registration, uniform purchase, and term fees. The protocol's coordination and reminder infrastructure supports this pattern explicitly, with the additional capability that the participation record builds a trust profile useful for future education-related applications (student loan applications, scholarship verification, vocational training enrolment).

Faith-based circles.

Religious institutions and faith communities have long organised savings circles among their congregations and members. The protocol supports faith-based circles with appropriate governance customisation (rotation patterns aligned with religious calendars, alms-and-charity allocations integrated into the contribution structure, leadership patterns that reflect the institution's internal structure). The institutional Business-tier features described below support faith communities operating multiple circles at scale.

Migrant-origin community circles.

Diaspora communities, particularly first- and second-generation immigrants in the UK, US, Canada, and EU, frequently form circles among members of shared national or regional origin. These circles serve both an economic and a cultural function — they reproduce the savings practices of the origin country in the diaspora setting and create community institutions where formal institutional engagement is harder. The protocol's cross-border features described in Section 11 support these circles' interaction with home-country circles where members maintain ties.

Member-led community projects.

A natural extension of the LLP mechanism is the use of circle resources for community projects that benefit the membership collectively — a community building improvement, a shared agricultural input purchase, a contribution to a local school or clinic, a collective business venture. The CLP mechanism (Section 13.2) extends the same pattern across circles: multiple circles can collectively fund a community project that benefits the broader community in which they operate, with each circle's contribution governed by its own internal vote and the aggregate project tracked by the protocol. This is community philanthropy and collective economic action at network scale, made operationally viable by the same trust-report and audit infrastructure that supports the lending layers.

14.2 Business users

The business segment occupies a middle position between individual community members and institutional enterprise users. Business users typically operate or administer multiple circles, often on behalf of an organised group with a shared institutional context — a workplace, a professional association, a religious institution, a community-based organisation. The Business tier of the protocol provides the multi-circle administration capabilities, verified organisational identity, endorsement issuance authority, and audit-grade record infrastructure that this segment requires.

Employer-sponsored savings.

Employers who wish to support their workers' savings discipline — without operating a regulated pension or benefit scheme — can administer workplace circles on the Business tier. Employees opt in to participate; the employer facilitates the contribution mechanism (typically through payroll deduction, with the funds routed directly between employees through partnered payment rails — the employer never custodies); the employer can additionally choose to match contributions or sponsor the participation of specific employee groups as a benefit. Employer-sponsored savings circles are a well-established pattern in Jamaican workplaces and Latin American maquiladoras; the protocol infrastructure makes them administratively viable at larger scale than the informal patterns currently support.

Professional associations.

Professional associations — nurses' associations, teachers' unions, taxi drivers' associations, market vendors' cooperatives — frequently organise savings circles among their members. The Business tier supports these associations with multi-circle administration, member directories, governance tools appropriate to the association's structure, and the institutional endorsement issuance authority that allows the association to confer recognition on members whose conduct exemplifies the association's standards.

Community-based organisations and cooperatives.

Community-based organisations operating in particular geographic or demographic communities — youth development organisations, women's cooperatives, agricultural cooperatives, community development associations — can use the Business tier to operate circle infrastructure as part of their broader programmatic activity. The institutional endorsement capability is particularly relevant here: a community development association that has directly observed a member's conduct over years of participation can issue an endorsement that carries the institution's reputational weight in the member's trust record, creating a credential layer that no individual peer endorsement can replicate.

Treasurer-as-a-service.

An emerging Business-tier offering supports circles whose membership wishes to participate without any individual member taking on the treasurer role. A Business-tier organisation registered to provide treasurer services takes on the administrative, tracking, and dispute-facilitation responsibilities for a fee negotiated with the circle, while preserving the circle members' governance authority over the circle's decisions. This pattern lowers the barrier to circle formation for populations who lack a willing volunteer treasurer in their community and accelerates the matching pathway described in Section 6.3.

14.3 Enterprise users

The enterprise segment comprises institutional partners operating at a scale and with a regulatory profile that distinguishes them from Business-tier organisations. Enterprise users include banks running internal customer-acquisition circles, large institutional sponsors operating cross-circle programmes, government and quasi-governmental institutions integrating Circl credentials into their own service delivery, and the regulated lending partners participating in the CLP fallback pathway.

Banking partners running customer-acquisition circles.

A bank seeking to acquire previously-unbanked customers can operate circles for those customers as a customer-acquisition strategy, using the Enterprise tier of the protocol. The bank does not become the treasurer (the circle remains member-governed and the bank does not custody contributions), but it provides the institutional setting, makes its payment rails available to the circles, integrates the circles' participants into its broader customer relationship, and consumes the resulting trust reports as the basis for subsequent product offerings to those participants. This is a structurally novel customer-acquisition model: the bank earns a deeply-credentialed customer relationship over the duration of the circle's participation, informed by the participant's actual behaviour rather than by application-form self-declaration.

Institutional sponsors.

Large institutional sponsors — corporate philanthropies, development agencies, religious institutions operating across multiple congregations, diaspora associations — can use the Enterprise tier to operate sponsorship programmes at scale. Where the Pro-tier sponsorship described in Section 10 allows an individual member to sponsor one or a few other members, the Enterprise-tier sponsorship capability allows institutional sponsors to support hundreds or thousands of beneficiaries within a structured programme — for instance, a Caribbean Development Bank programme sponsoring savings circles for vulnerable populations, or a diaspora association in the UK sponsoring circles for its members' family in the Caribbean.

Government and quasi-governmental institutions.

Governments and quasi-governmental institutions in the protocol's operating jurisdictions can integrate Circl credentials into their own service delivery where appropriate. Possible patterns include: integration of trust reports into the eligibility verification for small business support programmes, the use of Circl participation history as one input into housing-application priority systems, and the supervisory monitoring access described in Section 16. Government integration is approached with the same consent-and-audit framework that governs all other partner access; the member's control over what is shared and with whom is not relaxed for government partners.

Regulated lenders.

Regulated lenders participating in the third-party pathway of the lending coordination layer (Section 13.3) are Enterprise users of the protocol. Their integration is governed by the Lender API agreements described in Section 12, with additional onboarding for the loan-origination pathway. Their commercial relationship with Circl is structured through introduction fees and per-verification charges; their regulatory responsibilities are entirely their own. Circl's role in the lender-borrower relationship ends at the introduction and credential bridge.

15. The Marketplace and Inter-Circle Networking

The protocol's value to a member compounds as the network grows. Beyond the lending coordination layers described in Section 13 and the cross-tier credential infrastructure described in earlier sections, the protocol introduces two further mechanisms through which network scale creates value: a partner marketplace through which members can access products and services from regulated counterparties, and an inter-circle networking layer that allows circles to support, collaborate with, and benefit one another beyond the lending layers.

15.1 Partner offers and the trust-gated marketplace

Members with strong participation profiles are attractive customers for a wide range of financial and adjacent products: small business credit, insurance, savings instruments, employer-provided benefits, education financing. The marketplace is the protocol surface through which regulated partners can present offers to eligible members, with the eligibility criteria and the offer terms determined by the partner and the member's consent to receive offers determined by the member.

The structural model is the same as the Lender API integration described in Section 12, applied to product offers rather than to credit verification. A partner registers as a marketplace participant, defines the product they wish to offer, defines the eligibility criteria (which may reference trust classification, KYC level, participation history, or other elements of the member's profile), and submits the partnership for Circl's review. Approved partners can present offers to eligible members through the in-app marketplace surface, with the member retaining full control over whether to accept, decline, or simply ignore any presented offer.

Three commitments constrain the marketplace design.

- **No member data is shared with marketplace partners without member consent.** The partner sees aggregated eligibility statistics that allow them to size their offer (how many members in jurisdiction X with trust classification Y); they do not see individual member profiles until a member elects to engage with their offer. The consent flow at the point of engagement is identical to the Lender API consent flow described in Section 12.
- **Marketplace offers are not unilaterally amplified by the protocol.** The protocol does not preferentially surface partner offers based on Circl's revenue interest. Members see offers ranked by relevance to their stated interests and by transparency of terms. Where revenue considerations affect ranking, the affected positions are clearly marked as sponsored.
- **Adverse-action protections are extended to marketplace partners.** Where a marketplace partner declines a member's application based in any part on data sourced from the Circl trust report, the member has the same right to disclosure and explanation that they would have under the underwriting frameworks of the partner's jurisdiction. The protocol's partnership agreement requires partners to honour these rights.

Revenue model.

The marketplace generates revenue for the protocol through three mechanisms: referral fees on successful customer acquisitions (a partner pays a fee when a member they sourced through the marketplace becomes a customer), origination fees on financial product placements (analogous to the third-party lender path in Section 13.3), and bounded sponsored placement fees for partners who wish to increase the visibility of their offers within the marketplace surface. Together with the Pro tier member subscriptions, the Lender API revenue, and the CLP coordination revenue (where applicable), the marketplace forms one of the protocol's principal revenue lines.

15.2 Inter-circle endorsement portability

An endorsement issued by a member of Circle A to a member of Circle B carries weight not only within those two circles. A member's endorsement record is part of their trust report, and the trust report is read by all the contexts in which the member presents it. The protocol's design ensures that endorsements are portable across the network rather than scoped to the circle in which they were issued.

This matters because it allows a member's reputation to compound across their participation history. A new member of Circle B who has previously been endorsed by members of Circles A, C, and D enters Circle B with a reputational foundation that any individual circle's records would not support. The treasurer of Circle B, considering an applicant, sees not only the applicant's contribution and governance record across all their previous circles but also the qualitative recognition those previous circles' members have extended.

Inter-circle endorsement portability also creates a network-level reputation system that no single circle can manipulate. A member cannot self-promote themselves into reputational standing; they require the genuine recognition of peers across multiple contexts. A circle cannot manufacture endorsements for its own members in ways that would not be visible across the network. The cross-circle visibility creates audit constraints on endorsement issuance that protect the integrity of the endorsement record at scale.

15.3 Community projects across circles

The most ambitious of the inter-circle networking mechanisms is the support for community projects that span multiple circles. A community project is a shared initiative — a building improvement, an agricultural cooperative venture, a community education programme, a local infrastructure contribution — funded and governed by multiple circles acting collectively.

The structural mechanism extends the CLP coordination described in Section 13.2. A circle initiates a community project proposal; the proposal is circulated to other circles in the relevant geographic or community network; interested circles vote internally on whether to participate; participating circles commit their share of the project's funding from their own resources and assign representatives to the project's governance committee; the protocol provides the coordination, vote-tracking, and audit infrastructure that allows the project to operate at the scale that no single circle could support. Funds flow directly between contributing circles and the project's designated execution counterparty (which is typically itself a Business-tier or Enterprise-tier participant — a contractor, a community-based organisation, an institutional partner — never Circl).

Community projects across circles operationalise an aspect of the protocol's thesis that the lending coordination layers begin to touch on but do not fully realise. The thesis is that community-validated trust is genuine financial-grade signal. Lending across circles operationalises this for credit transactions. Community projects operationalise it for collective economic action — circles pooling resources not for credit but for shared investment in their communities' broader welfare. This is a primitive that existing community-led economic infrastructure (cooperatives, mutual-aid societies, religious congregations) has operated within their own boundaries for generations; the protocol scales the primitive across the boundaries of any single community.

NETWORK COMPOUNDING

Inter-circle networking — through endorsement portability, community project coordination, and the lending pools described in Section 13 — operationalises the protocol's thesis at network scale. Community-validated trust becomes a primitive that supports credit, recognition, and collective economic action across the boundaries of any single circle. The network compounds.

14A. Revenue Architecture and Three-Year Trajectory

The protocol's revenue model is intentionally diversified across fourteen distinct streams. The diversity matters: no single stream creates concentration risk; multiple streams compound to support sustainable growth. The architecture also means the platform does not depend on any single member behaviour for its commercial viability — Free members generate marketplace and Trust Report revenue, Pro members generate subscription and AI revenue, treasurers generate coordination fees (which they net against their Community Growth Program earnings), institutional partners generate API and Enterprise revenue.

The fourteen streams.

1. **Pro Subscriptions** — £29/month per Pro member; £290/year for annual (15% discount). The principal recurring revenue stream from members.

2. **Business Tier** — £199/month per organisation account. Multi-circle administration, institutional endorsement, treasurer-as-a-service capabilities.

3. **Enterprise Tier** — £2,500/month per banking or lending partner. Includes dedicated relationship management, unlimited Enterprise AI, custom workflows.

4. **Coordination Fees** — 2.0% for free-tier circles, 1.5% for Pro-tier circles, 1.0% for Business-tier circles, with a £35/circle/month cap. Circles of six or fewer members contributing under £500 per cycle are exempt — preserving access for the smallest community pardnas.

5. **Trust Reports (Free users)** — £12.99 for a Basic Trust Report; £19.99 for an Enhanced Trust Report. Available to free users on a per-report basis.

6. **Enhanced Trust Reports (Pro extras)** — £4.99 each beyond the included credits. Pro users get three Trust Credits per month included.

7. **Lender API verification fees** — £1.50 per verification query. The programmatic mechanism by which institutional partners verify Trust Reports at scale.

8. **Marketplace revenue share** — 10% of partner revenue from member introductions. Aligned with the partner's success rather than charging up-front.

9. **Phase 2 Escrow fees** — 1.5% of contribution volume for circles electing escrow-mediated custody (available from Year 2 onward).

10. **Custom Integration fees** — £15,000 one-time per Enterprise partner. Supports the engineering work to integrate the Lender API into the partner's existing underwriting systems.

11. **AI Assist — Basic** — £3 per query for Free users (Pro inclusive). Powered by Claude Haiku, 90% gross margin.

12. **AI Assist — Enhanced** — £7 per use for Pro users (Business inclusive). Powered by Claude Sonnet, 78% gross margin.

13. **AI Assist — Enterprise** — £35 per use for Business users (Enterprise inclusive). Powered by Claude Opus, 77% gross margin.

14. **LLP/CLP Documentation drafting** — £15 per standard-form document. AI-assisted drafting of community-lending agreements where the circle wishes written terms.

Base case at 1,000 active circles.

At the symbolic milestone of 1,000 active circles, with average composition (nine members per circle, 20% Pro adoption), the base case revenue picture: gross annual revenue of approximately £957k; treasurer payouts through the Community Growth Program of approximately £111k (13% of gross); AI cost-of-goods of approximately £12k (1% of gross); net revenue to the operating company of approximately £835k (87% margin). Per-circle net revenue: £835/year. Per-member net revenue (across all members including free): £93/year. Per-Pro-member net revenue: £464/year.

Three-year trajectory (base case).

The trajectory from launch to maturity, assuming Pro adoption rises from 15% in Year 1 to 22% in Year 2 to 28% in Year 3, and active circles grow from 500 to 2,500 to 7,500:

Year 1: 500 circles, 4,500 members, 675 Pro members. Gross revenue ~£391k, treasurer payouts ~£56k, net to Circl ~£332k (85% margin).

Year 2: 2,500 circles, 22,500 members, 4,950 Pro members. Gross revenue ~£2.45M, treasurer payouts ~£409k, net to Circl ~£2.24M (91% margin).

Year 3: 7,500 circles, 67,500 members, 18,900 Pro members. Gross revenue ~£8.39M, treasurer payouts ~£1.56M, net to Circl ~£7.98M (95% margin).

The treasurer's share.

A point worth making explicit: as Circl grows, the absolute amount paid to treasurers grows substantially. Year 1 treasurer payouts of £56k support roughly 500 treasurers. Year 3 payouts of £1.56M support roughly 7,500 treasurers. The aggregate growth of treasurer earnings is part of the platform's story. Circl is not just generating revenue for itself; it is distributing meaningful value to the community-builders who make the platform work. At scale, Circl pays out millions of pounds annually to people who would otherwise receive nothing for community-building work they are already doing informally.

> **REVENUE ARCHITECTURE**
>
> Fourteen revenue streams, base case three-year trajectory of £332k → £2.24M → £7.98M net. Treasurer Partner share grows from £56k/year to £1.56M/year over the same period. The platform's commercial sustainability and the treasurer participation economy scale together.

16. Regulatory Posture and Jurisdictional Analysis

The protocol's regulatory posture is anchored by the non-custodial commitment described in Section 5. The protocol does not custody funds, does not originate credit (including in the lending coordination layers described in Section 13), and does not act as a financial intermediary. This places it outside the regulatory perimeter of banking, payment institutions, money services, and credit institutions in nearly every relevant jurisdiction.

What the protocol does is provide coordination infrastructure for community savings groups, identity verification infrastructure for the members of those groups, credentialing for verified participation history, and coordination for community-internal and cross-circle mutual aid. These activities have compliance implications — primarily around anti-money-laundering, counter-terrorism-financing, identity verification standards, data protection, and member rights — but they do not place the protocol in the regulatory categories applied to entities that move, hold, or originate credit.

Section 13.4 provides the detailed jurisdictional analysis for the lending coordination layers specifically; the present section addresses the protocol's broader regulatory posture across its operating jurisdictions.

Jamaica.

The Bank of Jamaica regulates banks, credit unions, and the new fintech sector through its Fintech Regulatory Sandbox. The Financial Investigations Division (FID) supervises anti-money-laundering and counter-terrorism-financing obligations under the Proceeds of Crime Act (POCA) and the Terrorism Prevention Act. Pardna is explicitly recognised in Jamaican legal and economic literature as a customary community savings practice; it does not, in itself, require regulatory authorisation. The protocol's role in facilitating pardna participation falls within the customary practice category, not the regulated financial institution category. Member-level KYC under POCA reporting thresholds, and structured AML compliance for the cross-border sponsorship layer, are the operating compliance requirements.

United Kingdom.

The Financial Conduct Authority (FCA) regulates banks, payment institutions, e-money institutions, and consumer credit firms. The Money Laundering, Terrorist Financing and Transfer of Funds Regulations 2017 (MLR 2017) establish KYC and AML requirements for regulated firms. The protocol's non-custodial coordination role places the compliance obligation primarily on partnered payment institutions rather than on the protocol itself. The Information Commissioner's Office (ICO) supervises data protection compliance under the UK Data Protection Act 2018 and the UK GDPR.

United States.

The U.S. regulatory landscape combines federal oversight (FinCEN, OCC, CFPB) with state-by-state money transmitter licensing. The federal definition of money services business (MSB) is broad; state MTL definitions vary considerably. The protocol's non-custodial structure is intended to remain outside the federal MSB definition. The Consumer Financial Protection Bureau (CFPB) supervises fair-lending compliance for any underwriting that relies on alternative data; the protocol's role as a credential provider, not as an underwriter, places fair-lending compliance with the partner lenders that consume the credentials rather than with the protocol.

European Union.

The EU framework — primarily AMLD6 and the Markets in Crypto-Assets Regulation (MiCA) — establishes obligations for entities operating across member states. The protocol's non-custodial structure places it outside MiCA's scope (which applies to crypto-asset service providers — see Section 19 for the explicit position on this question). AMLD6 obligations apply to the protocol's role as an obliged entity for KYC and continuous monitoring purposes; these obligations are discharged through the verification provider relationships and the tier-graded verification model described in Section 9.

West and East Africa.

Susu, ajo, chama, ekub, and equivalent community savings practices are extensively documented in West and East African economic literature and recognised in customary law throughout the region. The Central Bank of Nigeria, Bank of Ghana, Central Bank of Kenya, and other regional central banks maintain frameworks for mobile money operators and digital lenders that may govern the partnered payment rails Circl integrates with, but do not (in their current form) bring non-custodial coordination infrastructure into their regulatory perimeter. The protocol's expansion into these markets, anticipated in later phases of the roadmap (Section 20), will be undertaken with explicit regulatory engagement in each jurisdiction before launch.

Across all jurisdictions, the protocol's posture is one of proactive engagement rather than regulatory arbitrage. The non-custodial design is not an attempt to evade regulation; it is an attempt to provide useful infrastructure within an architectural frame that respects the regulatory categories established by the financial regulators in each jurisdiction.

17. Privacy, Consent, and Member Rights

The protocol's commitment to member-owned identity is operationalised through four concrete mechanisms: granular consent at every share point, comprehensive audit logging visible to the member, revocability of every shared credential, and considered data residency choices that respect the sovereignty of the jurisdictions whose populations the protocol serves.

Granular consent.

Every action that exposes a member's data to a third party — generating a trust report URL, approving a lender access request, accepting a sponsorship offer, participating in a CLP lending or borrowing decision — requires explicit member consent at the time of the action. Consent is not buried in a terms-of-service agreement; it is presented contextually, at the moment, with the specific disclosure of what is being shared and with whom.

The protocol's data protection posture aligns with the standards established by the EU General Data Protection Regulation (GDPR), the UK Data Protection Act 2018, and the Jamaican Data Protection Act 2020 — and is intended to be at least as protective where local jurisdictions offer different standards.

Audit logging.

Every consent given, every access to the member's data, every state change in the member's account, every credential issued and revoked, every lender access request approved or declined, every dispute filed and resolved, every LLP and CLP transaction the member has been part of — every event of operational significance — is logged in an append-only audit log scoped to the member. The member can view this log in their settings panel.

Revocability.

Every credential, every access grant, every webhook subscription, every consent given is revocable by the member. Revocation is one-tap and effective immediately. The member's right to withdraw consent is implemented as a first-class feature.

Data minimisation.

The protocol stores only the data it requires for the operations described in this paper. Raw identity documents are held by the verification provider. Endorser identities exposed in trust reports are presented as display names with hashed identifiers. Payment details are held by the partnered payment rails; the protocol holds only tokenised references.

Right to erasure.

A member may request deletion of their account. The protocol honours deletion requests, subject to retention obligations imposed by AML, tax, and other lawful supervisory regimes — which typically require retention of certain transaction-related records for five to seven years. Records that must be retained for supervisory purposes are clearly identified to the member at the time of the deletion request.

Data export.

A member can, at any time, request a complete export of all their data held by the protocol. The export is provided in machine-readable form within seventy-two hours of the request and includes participation records, trust reports, audit log entries, and any other data the member has generated.

17.1 Data residency and sovereignty

Data residency — the question of which jurisdictions' soil the protocol's data physically resides on — is a consequential design choice with regulatory, sovereignty, and member-protection implications. The protocol's approach is deliberate.

The default principle is that member data resides, to the maximum extent practicable, in cloud regions located within the member's verified residence jurisdiction or the closest available region within an aligned legal regime. Caribbean members' data resides in cloud regions in the Caribbean, the Southern United States, or other regions whose data protection frameworks the Caribbean jurisdictions can engage with on mutual terms. UK members' data resides in UK cloud regions. EU members' data resides in EU cloud regions. African members' data, as the protocol expands into African corridors, will reside in African cloud regions (or, where regional cloud infrastructure is not yet sufficiently mature, in regions whose legal frameworks support appropriate cross-border data flows under the African Continental Free Trade Area's data governance provisions and equivalent regional frameworks).

Where the protocol's operational requirements necessitate cross-region data movement — for instance, the cross-border sponsorship and lending operations that are the principal Pro-tier features — the data movement occurs under explicit member consent, with the consent flow disclosing the specific data flows that the action will trigger. The protocol does not transfer member data across jurisdictional boundaries silently.

The data residency commitment has commercial implications that are worth acknowledging. Operating cloud infrastructure across multiple regions is more expensive than operating in a single region. Cross-region data transfer fees and inter-region latency carry real cost. The protocol accepts these costs because data sovereignty is a member-protection commitment that aligns with the protocol's broader posture of member-owned identity. A member whose verified residence is Jamaica is owed the assurance that their data is operating under Jamaican legal sovereignty to the extent the architecture supports it; the same applies to members across the protocol's other operating regions.

18. Governance and the Role of Treasurers

The treasurer is the central figure in a community savings circle. They track contributions, organise the rotation, mediate disputes, and represent the circle in any interaction with external parties (including the Circl protocol itself). Their role is the single most consequential one within the circle, and the protocol is designed to support that role rather than replace it.

The protocol's treasurer interface provides five capabilities. First, contribution tracking. Second, rotation management. Third, governance (calls to votes, recording outcomes). Fourth, dispute facilitation. Fifth, and introduced in the lending coordination layers, the management of the circle's participation in LLP and CLP transactions — recording the circle's votes, executing the agreed flows, tracking repayment.

Treasurers are members of their own circles. Their fiduciary relationship runs to the other members of the circle, not to the protocol. The protocol provides them tools; it does not direct their decisions. Treasurer terms are typically time-limited — twelve months is a common cadence — with the role rotating among members.

A member who has served a completed treasurer term has a participation event of significant weight in their trust record; this signal is among the strongest indicators of community-validated leadership that the protocol captures. Trust reports surface treasurer terms served prominently for this reason.

Member governance of the protocol itself.

A question that arises naturally — given the protocol's structural similarity to a cooperative or mutual-aid institution — is whether the protocol should itself be governed by its members. In the initial phases of operation, the answer is operationally pragmatic: the protocol is operated by a conventionally-structured company with established corporate governance, responsible to its principals and to the regulators of its operating jurisdictions. This is appropriate for the early phases when operational stability, capital structure, and accountability to founding stakeholders are paramount.

Whether the protocol evolves toward a more directly member-governed structure in later phases — a cooperative form, a member-elected governance committee, a hybrid corporate-cooperative structure of the kind some credit unions and mutual societies have adopted — is a question for those later phases and one the principal author does not commit the protocol to in either direction at the time of this paper's publication. The protocol's structural design does not preclude such evolution; the architectural commitments to non-custodial operation, member-owned identity, and verifiable-without-Circl credentialing are compatible with a wide range of governance forms above them. The question of what governance form best serves the protocol's mission as it scales is appropriately deferred to the point at which scale makes the question concrete.

19. Position on Blockchain, Tokens, and Smart Contracts

The protocol described in this paper bears certain surface similarities to blockchain-based protocols: cryptographic verification, member-owned credentials, decentralised coordination, non-custodial structure. The similarities are real but limited. The present section states explicitly that Circl is not a blockchain protocol, in order to pre-empt the conflation that would otherwise arise.

Specifically:

- **Circl does not run on a blockchain.** The protocol's infrastructure is conventional cloud infrastructure operating in the cloud regions described in Section 17.1. The ledger that records participation events is a conventional append-only database, signed and tamper-evident through the cryptographic primitives described in Section 8, but not distributed across a blockchain network and not consensus-validated through any blockchain protocol.
- **Circl does not issue a token.** There is no Circl coin, no Circl utility token, no Circl governance token, no Circl native cryptocurrency. The protocol's commercial model is conventional subscription and API revenue (Sections 10, 12, and 15). The absence of a token is intentional: token issuance would convert the protocol from a non-custodial coordination layer into a regulated crypto-asset service provider under MiCA, the SEC's frameworks, and equivalent regimes globally, with consequences for the regulatory perimeter that the protocol is structured specifically to avoid.
- **Circl does not use smart contracts.** The lending agreements described in Section 13, the sponsorship agreements described in Section 10, and every other formal arrangement the protocol coordinates are conventional contracts under the laws of the relevant jurisdictions — standard-form documents recording the parties, terms, and dispute resolution paths, executed by the parties under their own legal personalities. Smart-contract automation would substitute deterministic code execution for the legal-system enforcement that, in our view, the lending and support relationships described in this paper require. The protocol relies on the legal systems of its operating jurisdictions to provide enforcement; it does not attempt to substitute code for law.
- **Circl is not a Web3 project.** The protocol does not participate in Web3 ecosystems, does not interact with decentralised finance protocols, and does not bridge to blockchain-based infrastructure. Whether such interactions are valuable for some adjacent class of platform is not a question this paper takes a position on. For the Circl Protocol specifically — given its target population, regulatory posture, and mission — the conventional cloud-and-cryptography infrastructure described in this paper is the appropriate technical foundation, and we do not anticipate revisiting that choice in foreseeable future phases.

Where Circl uses cryptography, it uses well-established primitives — RFC 8785 canonicalisation, SHA-256 content hashing, HMAC-SHA256 signing — selected for their analytical maturity and broad implementation support, not for any association with blockchain technology. The cryptographic property the protocol provides is integrity of the trust report; this property is achievable, and is achieved, with primitives that predate blockchain technology by decades.

THE PROTOCOL IS NOT WEB3

Circl is not a blockchain protocol, does not issue tokens, does not use smart contracts, and is not a Web3 project. The protocol's use of cryptographic primitives for credential integrity is consistent with the conventional use of those primitives in established financial infrastructure; the conflation with blockchain technology is incidental and not endorsed by the protocol's design.

20. Rollout: A Phased Capability Roadmap

The protocol described in this paper is being built and rolled out in phases. The present section describes the phasing in broad time bands. Specific milestones and dates are intentionally not provided; experience indicates that detailed schedules at this distance from the events they describe become hostages to fortune and lose credibility as circumstances evolve. The phasing below describes the directional sequencing the protocol's principals consider appropriate given the current understanding of the regulatory, operational, and adoption considerations involved.

20.1 Year 1 — protocol foundation and Caribbean corridor

The first year of operation focuses on the foundational layers of the protocol and on establishing operating presence in the Caribbean corridor — Jamaica as the principal launch jurisdiction, with diaspora-side operation in the UK, the US (initially in jurisdictions whose regulatory framing is clearest), and Canada.

Anticipated Year 1 capabilities:

- Free-tier circle creation and operation; treasurer interface; contribution tracking; rotation management; basic dispute facilitation.
- Tier 1 and Tier 2 KYC across the Caribbean and diaspora corridors, through partnerships with established identity verification providers.
- Trust score generation, basic trust profile visible to members within their active circles.
- Pro-tier launch: portable trust identity, exportable trust reports with cryptographic verification, sponsorship.
- Cross-border participation gating; cross-border trial mechanism; diaspora-to-home sponsorship.
- Local Lending Pool (LLP) mechanism within circles.
- First Lender API partner integrations with one or more Caribbean banking partners.
- Public verification endpoint for trust reports.

Year 1 deliberately defers the more regulatorily complex features (the CLP cross-circle lending coordination, the Business and Enterprise tier capabilities, the marketplace) in favour of establishing the protocol's core operating credibility on the simpler features. The order of preference is operational excellence on a constrained scope, followed by careful scope expansion as the operational foundation supports it.

20.2 Years 2–3 — diaspora expansion and lender integration

The second and third years of operation focus on expanding the diaspora corridor, building out the Lender API into a substantive partner network, and introducing the Central Lending Pool with appropriate regulatory engagement in each jurisdiction where it operates.

Anticipated Years 2–3 capabilities:

- Business tier launch: multi-circle administration, institutional endorsement issuance, treasurer-as-a-service.

- Central Lending Pool (CLP) launch in Jamaica; UK and EU CLP launch contingent on supervisory engagement outcomes.
- Discovery and matching pathways for member-initiated circle joining (Section 6.2 and 6.3).
- Significant expansion of the Lender API partner network; the first credit bureau reporting pilots in jurisdictions where this is appropriate.
- Marketplace launch with initial product categories (small business credit, insurance) and partners.
- Member governance layer for protocol-level decisions where feasible within the protocol's corporate structure.
- Initial expansion into one or more African or Latin American corridors, contingent on regulatory engagement outcomes in those jurisdictions.

20.3 Years 3–5 — scale, second corridors, and product depth

The third through fifth years focus on operational scale, expansion to second-priority corridors (West Africa, East Africa, Latin America at scale), and product depth in the existing corridors.

Anticipated Years 3–5 capabilities:

- Enterprise tier launch: banking partner customer-acquisition circles, institutional sponsor programmes at scale, government and quasi-governmental integration.
- US CLP launch in jurisdictions where supervisory framing has been established; broader US Lender API integration.
- Mature credit bureau integration across multiple jurisdictions, with structured bureau reporting of LLP, CLP, and rotation transactions as alternative credit data.
- West and East African corridor launches with regional KYC provider integration, regional payment rail integration, and regional regulatory engagement completed.
- Latin American corridor launches following the same pattern.
- Insurance product marketplace introduction in jurisdictions where regulated insurance partners are available to participate under the same coordination-not-origination model that governs the lending layers.
- Mature inter-circle networking layer, including substantial community project coordination across circles in established corridors.

Beyond Year 5, the protocol's evolution is necessarily speculative; the directional commitments are to deepen the trust-credential primitive into additional financial product categories, to expand into additional geographic corridors as regulatory and operational considerations support, and to maintain the architectural commitments to non-custodial operation, member-owned identity, and verifiable-without-Circl credentialing that the present paper establishes.

ROLLOUT POSTURE

The protocol's rollout proceeds in broad time bands: Year 1 establishes the Caribbean foundation; Years 2-3 expand the diaspora and lending coordination layers; Years 3-5 scale to additional corridors and product depth. Specific dates and milestones are not committed at this distance from execution; the directional sequencing is what the present paper commits to.

18A. The Community Growth Program

The Community Growth Program is the partnership programme through which treasurers participate in the value they help create. It is the most consequential single feature added in version 1.3 of this paper — the structural mechanism by which Circl grows without paid acquisition, and through which community-builders are economically recognised for the substantial work they perform.

Treasurers in pardna, susu, ajo, and equivalent rotating savings practices have always performed work that mainstream finance does not recognise or compensate. They identify members; they coordinate cycles; they hold funds; they resolve disputes; they sustain the institutional trust that makes the practices work. The Community Growth Program makes this work formally compensable. Treasurer Partners earn through three mechanisms: activation bonuses on qualified members, tiered residual earnings on Pro subscription revenue from members in circles they administer, and recognition through five Identity Levels.

18A.1 Activation Bonuses

A treasurer earns a one-time Activation Bonus of £5 (or 1,500 JMD in Jamaica, with equivalent local currencies in other jurisdictions) for each member who meets all six qualifying conditions:

(1) the member has upgraded to the Pro tier; (2) the member has completed Tier 1 KYC verification or higher; (3) the member has remained active on the platform for 60 continuous days; (4) the member has joined an active circle administered by the treasurer; (5) the member's first contribution cycle has successfully started; and (6) the member's participation has been verified through at least one confirmed contribution attestation.

The 60-day requirement is critical. It is the habit-forming period — the window within which casual signups either become active participants or drift away. Paying activation bonuses only on members who cross this threshold prevents fake-account farming, duplicate accounts, drive-by recruitment without genuine community placement, and the vanity-metrics growth that has undermined other community platforms. Activation bonuses reward genuine community placement, not transactional recruitment.

18A.2 Tiered Residual Earnings

Beyond the one-time Activation Bonus, treasurers earn ongoing residual income — a percentage of Pro subscription revenue from members active in circles they administer. The residual rate is tiered:

Tier 1 (1–50 active Pro members across the treasurer's circles): 15% base rate.

Tier 2 (51–150 active Pro members): 17.5% base rate.

Tier 3 (151+ active Pro members): 20% base rate.

The Residual is the longer-term economic relationship. Activation bonuses recognise the work of bringing members into the platform; residuals recognise the ongoing work of sustaining communities. A treasurer who builds carefully retains members; retained members continue generating residual; residual compounds.

18A.3 Retention and Health Bonuses

Two additional layers add to the treasurer's effective Residual rate. The **retention bonus** rewards member tenure: +0.5% added to the rate for members active 90+ days, +1.0% for members active 120+ days, +1.5% for members active 150+ days. The **community health multiplier** rewards aggregate circle health: +2% for Healthy Community status, +3% for Exceptional Community status.

Community Health is determined by eight composite metrics: contribution consistency, member retention through cycles, completed circles, governance participation, dispute rate, trust profile quality, community endorsements, and reserve participation. A treasurer who meets thresholds across these metrics earns the multiplier. A treasurer operating Healthy Communities at Tier 2 with most members at 120+ days has an effective Residual rate of 17.5% + 1.0% + 2% = 20.5% — meaningfully more than the base Tier 2 rate.

18A.4 Identity Levels

The third mechanism is recognition. Treasurers progress through five Identity Levels based on the total active members across all circles they administer:

Community Builder (10 active members) — entry tier. Recognition badge on the treasurer's Community Contribution Profile, access to Resource Hub starter content, standard support. Typical timeline to reach: 1-3 months.

Circle Leader (50 active members) — established treasurer. Marketing templates, faster support, monthly treasurer webinars. Typical timeline: 6-12 months after Community Builder.

Regional Coordinator (150 active members) — multi-circle leader. Tier 2 Residual eligibility, advanced Resource Hub content, beta access to new features, mentorship eligibility. Typical timeline: 12-18 months.

Community Partner (500 active members) — leadership tier. Tier 3 Residual eligibility, direct Slack channel with other Community Partners, dedicated relationship manager, annual Treasurer Summit invitation. Typical timeline: 18-30 months.

Circl Ambassador (1,000+ active members) — the elite tier. Direct access to Circl leadership, highest-priority support, all retention and health bonuses, beta access to all new features, inclusion in Community Stories. Typical timeline: 24-36 months of sustained, exceptional community-building.

Progression is automatic based on monthly active-member count. Identity Levels are publicly displayed on the treasurer's Community Contribution Profile, providing credibility to potential members evaluating the treasurer's standing. Demotion (if active members fall below threshold) is administrative, not punitive — and historical level attainment remains visible (a current Regional Coordinator who was previously Ambassador is shown as "Regional Coordinator, formerly Ambassador").

The career path.

The combined economic and recognition architecture creates a genuine professional path. A Community Builder treasurer with ten active members earns approximately £10 per month — modest supplemental income. A Circle Leader (50 members) earns ~£52 per month. A Regional Coordinator (150 members) earns ~£155 per month. A Community Partner (500 members) earns ~£634 per month. A Circl Ambassador (1,000+ members) earns ~£1,445 per month or more. In Jamaica, the Ambassador-level earnings exceed median professional salaries. In the UK, they are substantial supplemental income. In both contexts, the path makes community-building a legitimate professional vocation.

18A.5 Fee Netting and Monthly Settlement

The operational mechanism by which earnings and fees flow is the Monthly Settlement. Each month, Circl performs a calculation that nets the treasurer's CGP earnings against the coordination fees they owe:

Monthly Settlement = (Activation Bonuses Qualified) + (Residual Earnings) – (Coordination Fees Owed)

The result is a single monthly transaction. Most active treasurers receive net positive payments — earnings exceed fees. Treasurers below break-even (typically very new treasurers or those operating very small circles) pay a net amount.

The fee-netting mechanism is significant because it transforms the economic relationship. The treasurer is not "paying for a service" — they are "receiving income from an ecosystem." Even though the underlying flows are the same, the framing and operational reality of receiving rather than paying changes how treasurers perceive their participation. This is the philosophical positioning made operational. The single monthly transaction makes the participation economy concrete.

Independent contractor relationship.

Treasurer Partners are independent contractors, not employees or agents of Circl. Their tax obligations are their own; Circl provides an annual income statement in a format suitable for their jurisdiction (UK self-assessment, Jamaica tax administration, US 1099-NEC where applicable, with equivalents in other countries as expansion occurs). The full terms of the Treasurer Partner relationship are set out in the Treasurer Partner Agreement at circlworld.com/legal/treasurer-partner-agreement, which is executed by every treasurer before enrollment in the Programme.

> **THE COMMUNITY GROWTH PROGRAM**
>
> The Community Growth Program operationalises the participation economy. Treasurers earn activation bonuses (£5/qualified member), tiered residuals (15-20% plus retention and health bonuses), and recognition through five Identity Levels. The fee-netting Monthly Settlement transforms the relationship from "paying for a service" to "receiving income from an ecosystem." Circl pays out millions of pounds annually at scale to community-builders who would otherwise receive nothing.

20A. Mobile Applications and Phased Development

The protocol must reach users where they are. For Circl's primary markets (Jamaica, the United Kingdom, the US and UK Caribbean diaspora), the smartphone is the primary computing device. Mobile applications are not optional infrastructure; they are essential to the platform's reach. Section 20A describes Circl's mobile strategy and the phased development architecture across web, mobile, and administrative platforms.

Cross-platform architecture.

Circl deploys via React Native to both iOS (App Store) and Android (Google Play), sharing maximum code with the existing Next.js web platform. The architectural shape is a monorepo with apps/web (the Next.js application at circlworld.com), apps/mobile (the React Native application), apps/admin (the admin portal at admin.circlworld.com), and shared packages: api-client, core business logic, TypeScript types, and design tokens. Approximately 80-90% of business logic, validation, data models, and brand styling shares between web and mobile. Platform-specific code handles native UI patterns, navigation, push notifications, and biometric authentication.

Mobile-first vs web-first features.

Some features are most natural on mobile: joining circles via invitation links, contribution attestations with photo proof, receiving payouts with biometric confirmation, real-time transparency dashboard viewing, dispute participation, governance voting, Trust Report viewing and sharing, push notifications for all platform events. Some features remain better on web: circle creation (large screen comfortable for setup), treasurer detailed dashboard and analytics, admin portal, corporate landing pages (treasurers, business, partners, company), legal documents, Lender API documentation, Business tier multi-circle administration.

The subscription distribution decision.

A critical commercial decision: Pro subscriptions are sold only via the web, not in-app. Apple's App Store and Google Play Store take 30% commission (15% after year 1) on in-app digital subscription sales. Selling a £29/month Pro subscription in-app means £8.70 per month per Pro member goes to Apple or Google. This is incompatible with the Programme's economics — particularly with the treasurer residual earnings, which are based on the full subscription revenue. The solution, used by Netflix, Spotify, and most fintech apps, is to sell subscriptions only on the web. The mobile app lets members use Pro features but does not offer the upgrade; members upgrade by visiting circlworld.com on a browser. This preserves the full subscription revenue with Circl and the treasurer residual share.

Distribution and developer-account dependencies.

Mobile app distribution requires Apple Developer Enterprise account ($99/year, with D-U-N-S number from incorporated entity), Google Play Developer account ($25 one-time, with incorporated entity), privacy and legal documents at canonical URLs (complete), App Store Privacy declarations and Google Data Safety declarations (operationally straightforward once the privacy posture is documented), production-grade app design that passes review, and a working production backend. Realistic timeline: 9 months from launch readiness to mobile apps in stores, with incorporation of Circl Technology Limited (Jamaica) and Circl Technology Ltd (UK) as a gating dependency for developer-account applications.

The eleven development phases.

The protocol is being built in eleven phases. R1 establishes the Coordination Fee infrastructure (the foundation for all member economic flows). R2 builds Trust Report commerce. R3 builds AI Assist infrastructure. R4 builds the full Community Growth Program (the most consequential development phase). R5 builds the LLP/CLP AI applications. R6 builds the Lender API and marketplace. R7 builds the Treasurer Dashboard. R8 builds the corporate frontend (treasurers, business, partners, company). R9 builds the regulatory and tax compliance hooks. R10 builds the admin portal at admin.circlworld.com. R11 builds the mobile applications.

R1 through R10 sequence in a realistic 9-month window with substantial parallelisation. R11 (mobile) develops in parallel with R10 and launches once R1-R10 are stable. The phasing is intentional: economic infrastructure (R1, R4) before growth infrastructure (R7, R8), foundation (R1-R6) before scale support (R10), web stability (R1-R10) before mobile launch (R11).

> **MOBILE STRATEGY**
>
> Mobile applications are essential infrastructure, not optional. React Native to iOS and Android with 80-90% code sharing from the web platform. Pro subscriptions sold only via web (avoiding Apple/Google's 30% commission). Eleven development phases, R1-R11, sequenced over approximately twelve months from launch readiness.

21. Strategic Horizons

Several extensions of the protocol are anticipated but not within the scope of the initial implementation described in this paper. They are presented here to indicate the direction of future development and to provide context for partners considering long-term integration. These horizons are positioned later in the rollout roadmap (Section 20) for reasons of operational and regulatory sequencing.

Credit bureau reporting.

The most direct extension is the reporting of verified participation history directly to credit bureaus, in the regions where this is appropriate. This is the model Esusu has implemented for rent payments in the United States. The protocol would, with member consent, transmit a structured representation of the member's borrowing-and-repayment record — including LLP and CLP transactions — to participating bureaus for inclusion in their credit files.

Insurance and risk pooling extensions.

A natural extension of the lending coordination layers is the coordination of community insurance pools. Circles can collectively elect to contribute to a mutual insurance reserve protecting members against defined risks (crop failure for agricultural circles, business interruption for small business circles, medical expenses, funeral costs). The structure mirrors the LLP and CLP coordination: Circl provides the governance and audit infrastructure; the regulated insurance counterparty (where applicable) bears underwriting risk and custodies premiums; Circl is the coordination and credential layer, not the insurer. The same coordination-not-origination architectural commitment that governs the lending layers applies to any insurance product the protocol coordinates.

Embedded financial products.

A further extension is the offering of financial products — credit, savings instruments, insurance, employer benefits — directly to members through partner integrations, targeted to members with strong participation profiles. Partners would underwrite and bear risk; the protocol would surface offers to eligible members and earn marketplace fees on conversions. The non-custodial commitment is preserved.

Endorsement-backed lending.

A further extension is the use of high-trust member endorsements as supporting signals in lending decisions for newer members. The mechanism is analogous to cosigner relationships but lighter-touch: a high-trust member's endorsement of a newer member's character would be a positive factor in the newer member's underwriting, without the endorser bearing financial liability for default. The endorser would accumulate a record of the soundness of their endorsements over time.

Organisational endorsements at scale.

Business-tier and Enterprise-tier members — employers, religious institutions, professional associations, community development organisations — can issue endorsements carrying the weight of their organisational identity. As the protocol's Business and Enterprise tiers mature in Years 2-5, organisational endorsements become a substantively significant signal alongside individual peer endorsements.

Cross-jurisdictional credit transfer.

A long-horizon extension is the use of the Circl trust record as a foundation for credit history portability across jurisdictions. A member who has built a strong record in one country and relocates to another could present their trust record to a bank in the new country as alternative credit data — bridging the painful credit-history reset that immigrants typically experience. This extension depends on partner banks being willing to underwrite against the credential and on appropriate regulatory frames in the receiving jurisdictions; both are achievable, but on a multi-year horizon and contingent on the broader maturation of alternative-data acceptance in formal credit underwriting.

22. Comparison with Existing Approaches

Several existing platforms operate adjacent to the protocol's territory. None provides the integrated identity, credentialing, and community lending coordination layers the protocol introduces, but each illuminates a piece of the picture.

Esusu (rent reporting).

Esusu's core business is reporting rent payments to U.S. credit bureaus, converting a previously invisible payment stream into FICO-affecting data. The model is structurally compatible with what the Circl Protocol proposes; the difference is data scope. Esusu captures rent. The Circl Protocol captures community savings participation and community lending — a category that is significantly larger globally, particularly in the Caribbean, sub-Saharan African, and Latin American markets that anchor the Circl member base.

MoneyFellows, Tanda, PardnaPlus (ROSCA management apps).

Several apps offer smoother UX for running ROSCAs than the WhatsApp groups and treasurer notebooks they replace. These tools provide coordination value but do not produce a portable credential and do not coordinate community lending across circles. The Circl Protocol's positioning is not as a competitor to these tools on UX; it is as infrastructure that any ROSCA management app could, in principle, build against to produce credentialing and inter-circle coordination as outputs of their participation tracking.

P2P lending platforms (LendingClub, Funding Circle, Zopa).

Conventional peer-to-peer lending platforms intermediate loans between individual investors and individual borrowers; the platform operator is typically the originating or facilitating party and bears regulatory responsibility accordingly. The Circl Protocol's lending coordination layers — LLP, CLP, and the regulated third-party fallback — are structurally different: lending parties are circles acting through collective governance, not individual investors seeking yield; the borrowing parties are circles operating with full participation-history transparency to the lending counterparties; and the protocol is not a party to the loan but a coordination and credentialing layer above the loan contract.

Plaid, TrueLayer, Mono (open banking aggregators).

Open banking aggregators expose transactional history from formal bank accounts. Where contributions flow through formal banking, this works. Where they do not — where community savings move through cash, mobile money, or peer-to-peer transfers outside formal banking — open banking provides no signal. The Circl Protocol's captured data is not duplicative of open banking; it is data open banking does not see and cannot represent.

Petal, TomoCredit, Upstart (alternative-data underwriting).

Several U.S. consumer lenders have built underwriting models that incorporate alternative data to extend credit to thin-file applicants. The success of these models demonstrates that alternative data, properly verified and presented, is underwriteable. The Circl Protocol is intended to be a complementary data source for such lenders, providing community-savings-participation as an additional signal of the kind these lenders already use.

Cooperatives, credit unions, and mutual-aid societies.

The longest-established institutional analogues to the Circl Protocol are credit unions, cooperatives, and mutual-aid societies — institutions that have, for over a century, operated community-governed financial structures with member ownership and mutual support. The Circl Protocol shares many of the principles that animate these institutions: community governance, member ownership of value created, mutual aid across the membership. The difference is technical infrastructure rather than principle: where cooperative and credit union institutions operate as regulated financial institutions with internal lending capabilities, Circl operates as a non-custodial coordination layer above the existing savings, lending, and credential infrastructure. The two approaches are complementary; we anticipate productive partnerships with credit union leagues and cooperative federations in the protocol's operating jurisdictions.

Decentralised identity protocols.

A growing class of decentralised identity infrastructure aims to give individuals control over their identity credentials through cryptographic primitives. The Circl Protocol shares the goal of member-owned credentials but operates in a narrower and more pragmatic frame: it focuses on a specific class of behavioural credential, uses established cryptographic primitives rather than novel ones (as described in Section 19), integrates with established identity verification providers rather than self-sovereign identity systems, and is engineered for compatibility with the existing banking system rather than as an alternative to it.

23. Risks and Limitations

The protocol described in this paper has dependencies and operational risks that should be acknowledged explicitly. The intent is not to minimise them but to characterise them accurately so that members, partners, and regulators can assess the protocol with full information.

Identity verification provider dependency.

The protocol depends on partnerships with established Tier 1 identity verification providers. The provider abstraction described in Section 9 is designed to mitigate single-provider risk, but provider availability and quality remain external dependencies.

Treasurer misconduct in the beta phase.

In the beta phase, circles operate on a treasurer-managed model in which the treasurer is a community member with custody of contributed funds during the time between contribution and payout. A treasurer who absconds with contributed funds is a community-level event, not a protocol-level event — the protocol does not custody funds — but the loss to the affected members is real. Mitigations include the treasurer's KYC verification, the community endorsement model, and the dispute logging that documents misconduct.

CLP and inter-circle lending novelty risk.

The CLP is a genuinely novel coordination primitive. Although the structural analysis in Section 13.4 places it within recognised regulatory categories in most operating jurisdictions, the novelty of the primitive carries the risk that regulatory frameworks evolve in directions that constrain or modify how the CLP operates. The protocol's commitment to proactive supervisory engagement (rather than regulatory arbitrage) is intended to manage this risk; operational adjustments to the CLP design in response to regulatory feedback are anticipated and the protocol's architecture is designed to support such adjustments.

Credential acceptance among lenders.

The trust report is useful to a member only to the extent that lenders accept it. Lender adoption requires partner agreements, integration work, and underwriting model adjustments. Early in the protocol's lifecycle, the universe of accepting partners is limited; the protocol's value to members depends on growing that universe over time.

Regulatory evolution.

The regulatory frameworks discussed in Section 16 are evolving, particularly around alternative data in credit underwriting, cross-border digital identity, and AML obligations for platforms operating in cash-economy markets. The protocol's compliance posture is established against current regulatory regimes; changes in those regimes will require adaptation.

Adoption velocity in the cash economy.

The protocol's primary member base is a population for whom smartphone fintech adoption is uneven. The protocol's mobile experience must work across a wide range of device capabilities, connectivity environments, and prior fintech exposure.

Concentration risk in the diaspora layer.

The cross-border Pro tier is, in the protocol's early phases, the primary revenue line. Concentration of revenue in a particular geographic corridor carries the risk that disruption to that corridor disproportionately affects the protocol's operating revenue. Mitigation is through deliberate geographic diversification of the diaspora layer over time.

Counterparty risk in CLP transactions.

In CLP transactions, the lending circles bear counterparty risk on the borrowing circle's repayment. Although the trust-report transparency and the standard-form documentation reduce information asymmetries, the lending circles ultimately accept that risk through their internal vote to participate. The protocol's role in mitigating CLP counterparty risk includes the dispute resolution infrastructure for late or missed repayments and the credentialing consequences for circles that default (a circle that defaults on CLP repayment damages its institutional trust record, with cascading consequences for its future CLP participation and for the trust records of its members). These are mitigations, not eliminations of risk; the CLP is a community mutual-aid mechanism and, like any mutual-aid mechanism, requires the participating communities to accept the risks they collectively undertake.

24. Conclusion

The Circl Protocol described in this paper proposes a particular thesis: that community savings participation, when properly verified and credentialed, is a behavioural financial primitive of equal or greater predictive value than the primitives credit bureaus already use, and that the cost of its invisibility is borne disproportionately by populations whose discipline deserves recognition. The version 1.1 of this paper extends that thesis with the lending coordination layers — LLP and CLP — that operationalise community mutual aid at scale, preserving the non-custodial architectural commitment while enabling communities to support one another across the boundaries of any single circle.

The protocol's design is, in important respects, conservative. It uses established cryptographic primitives. It operates within recognised regulatory categories. It depends on established identity verification providers rather than novel self-sovereign identity systems. It is not a blockchain protocol, does not issue tokens, and does not use smart contracts. What it proposes is a primitive — a verified participation credential, paired with community lending coordination — that fits between the cash economy and the formal financial system in a way that current infrastructure does not provide.

The protocol is intended to be useful at three time horizons. In the immediate term, it provides a smoother coordination tool for circles that currently operate on WhatsApp groups and treasurer notebooks, with the addition of basic identity verification, a basic participation record, and internal mutual aid coordination. In the medium term, it provides diaspora-resident members with a way to support and credential family members in their countries of origin, builds the cross-circle lending coordination that scales community mutual aid across communities, and integrates with banking partners through the Lender API. In the long term, it provides the infrastructure for behavioural credit data from the cash economy to flow into formal credit systems in a way that benefits the participants whose discipline created the data, while operationalising community-led economic action at network scale through the marketplace, inter-circle networking, and community project coordination layers.

> *"Your pardna built trust in your community. Now it builds trust everywhere you go."*

The work described in this paper is ongoing. Some components are implemented and in active use; others are specified and approaching implementation; others are anticipated for later phases of the rollout described in Section 20. The architectural commitments described here — non-custodial coordination, member-owned identity, verifiable-without-Circl credentialing, community-before-third-party in the lending coordination layers — are foundational and intended to remain stable across all subsequent development.

We expect the protocol to operate at the boundary between the formal financial system and the cash economy for the foreseeable future. The cash economy is not a transitional state to be migrated out of; it is the financial system used by the global majority. The protocol's purpose is to provide infrastructure that respects how that system actually works — community-governed, trust-based, locally accountable, supporting one another through mutual aid — while translating its discipline into a credential the formal

system can read and operationalising its mutual-aid practices at network scale. The infrastructure problem this represents is, in our view, among the more meaningful infrastructure problems remaining to be solved in financial services.

Community Trust. Coordinated Globally.

Appendix A. Glossary

ROSCA

Rotating Savings and Credit Association. A community-organised savings group whose members contribute fixed sums on a regular schedule and take turns receiving the pooled total.

Pardna

Jamaican term for ROSCA; also "partner" or "partner plan."

Susu

West African term for ROSCA, used particularly in Ghana, Nigeria, and the diaspora.

Tanda

Latin American term for ROSCA, common in Mexico, Honduras, and the U.S. Latino diaspora.

Chama

East African term for ROSCA, common in Kenya, Tanzania, Uganda.

Ajo

Nigerian term for ROSCA, particularly among Yoruba-speaking communities.

Hui

Chinese term for ROSCA, with several regional variants.

Kye

Korean term for ROSCA.

Trust report

The protocol's primary credential output: a cryptographically signed, canonically-serialised record of a member's verified participation history.

Trust score

Composite 0-100 score derived from a member's participation events.

Trust classification

Tiered descriptor (New Participant through Pillar) derived from cumulative participation.

Sponsorship

Pro-tier mechanism in which one member pays for another member's circle contributions. The trust identity accumulates to the recipient; the sponsor accumulates a separate supporter reputation.

Cross-border participation

Activity in which the member's verified residence differs from the circle's primary jurisdiction. Requires Pro tier on the cross-border party's side.

LLP — Local Lending Pool

Community-internal mutual aid mechanism within a single circle. Circle members extend short-term support to one another using the circle's own resources, governed by the circle's existing voting mechanisms.

CLP — Central Lending Pool

Cross-circle peer lending coordination layer. Circles collectively elect to extend support to other circles in the network, with the protocol providing voting, trust-report visibility, and audit infrastructure. Circl coordinates; Circl does not lend.

Third-party lender pathway

Fallback lending mechanism in which the protocol introduces a borrower to a regulated lending partner who originates credit under their own regulatory supervision.

Treasurer-as-a-service

Business-tier offering supporting circles whose membership wishes to participate without an individual member taking on the treasurer role.

Inter-circle networking

Mechanisms — endorsement portability, community project coordination, the CLP — through which value flows across the boundaries of any single circle.

Canonical JSON (RFC 8785)

Deterministic JSON serialisation standard. Two reports generated from identical inputs produce byte-identical canonical JSON.

HMAC-SHA256

Hash-based Message Authentication Code using SHA-256. The protocol's signing algorithm.

Lender API

Programmatic interface through which banking partners verify presented trust credentials and request fresh credential issuance with member consent.

Treasurer

Member of a circle responsible for tracking contributions, organising the rotation, mediating disputes, and (in the beta phase) holding contributed funds between contribution and payout.

KYC

Know Your Customer. The identity verification framework, in three tiers.

PEP

Politically Exposed Person. A category subject to enhanced due diligence under AML regimes.

AML/CFT

Anti-Money-Laundering / Counter-Financing of Terrorism. The regulatory framework governing platforms facilitating financial activity.

Data residency

The principle that member data resides, to the maximum extent practicable, in cloud regions located within the member's verified residence jurisdiction or an aligned regional regime.

Appendix B. Trust Report Canonical Schema (v1.1.0)

The full canonical schema for trust reports at version 1.1.0 is specified in machine-readable form in the protocol's technical documentation. A condensed structural outline is provided here for reference.

schema_version, report_type

report_id, issued_at, expires_at, issuer, issuer_jurisdiction

member: { member_id, display_name, location, member_since, verification_level, pro_tier_active, classification, standing, active_circles_count }

trust_score: { composite, composite_label, breakdown { on_time_contribution_rate, governance_participation_rate, contribution_consistency, cycle_completion_rate, endorsements_received_count }, qualitative_ratings { overall_reputation, contribution_consistency, governance_participation, community_endorsements, circle_completion, accountability_record } }

participation: { cycles_completed, total_contributions_count, total_contributed_amount_cents, total_contributed_currency, treasurer_terms_served, defaults }

borrowing_repayment: { advances [{ circle_id, circle_name, transaction_type [rotation | LLP | CLP], period_start, period_end, position_in_cycle, total_positions, counterparties [for LLP/CLP], payout_received_at, payout_amount_cents, payout_currency, repayments_made, repayments_required, repayment_completion_rate, status }], aggregate { total_advances_count, total_advances_amount_usd_cents, overall_repayment_completion_rate, defaults_count, late_repayments_count } }

disputes: { against_member_count, filed_by_member_count, mediated_by_member_count, resolved_in_community_process_rate, entries [{ dispute_id, occurred_at, circle_id, circle_name, matter_summary, member_role, outcome, resolved_at }] }

endorsements: { total_count, shown_count, entries [{ endorser_display_name, endorser_member_id_hash, endorser_type [peer | institutional], quote, circle_id, circle_name, issued_at }] }

journey: [{ occurred_at, milestone, description }]

identity_verification: { level, level_label, verified_at, expires_at, provider, provider_reference_hash, attributes_verified, document, entity (Tier 3 only) }

consent: { issued_by_member_id, consent_given_at, purpose_declared, audience_scope, revocable }

The version 1.1.0 schema adds the *transaction_type* field to the borrowing_repayment entries (distinguishing rotation payouts from LLP and CLP transactions), the *counterparties* field for LLP and CLP transactions (recording the lending circle members or circles involved), and the *endorser_type* field on endorsements (distinguishing peer endorsements from institutional endorsements issued under Business or Enterprise tier authority).

Appendix C. References and Further Reading

Bouman, F.J.A. (1995). "ROSCA: On the Origin of the Species." Savings and Development.

Besley, T., Coate, S., Loury, G. (1993). "The Economics of Rotating Savings and Credit Associations." American Economic Review.

World Bank. (2021). "The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19."

Klein, A.B., Forteza, A. (2023). "Alternative Data in Consumer Credit Underwriting." Federal Reserve discussion paper series.

Financial Action Task Force. (2024). "Updated Guidance on Virtual Assets and Virtual Asset Service Providers."

RFC 8785: JSON Canonicalization Scheme (JCS). IETF, 2020.

RFC 2104: HMAC: Keyed-Hashing for Message Authentication. IETF, 1997.

Bank of Jamaica. "Fintech Regulatory Sandbox Framework."

Government of Jamaica. "Microcredit Act, 2021."

U.S. Financial Crimes Enforcement Network. "Guidance on the Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies."

UK Financial Conduct Authority. "Payment Services and Electronic Money — Our Approach."

UK Financial Conduct Authority. "The FCA's Regulatory Approach to Crowdfunding through the Internet."

European Banking Authority. "Guidelines on the use of remote customer onboarding solutions."

European Parliament and Council. "Regulation (EU) 2020/1503 on European Crowdfunding Service Providers (ECSPR)."

Esusu, Inc. "Rent Reporting Methodology and Year in Review" (various years).

Pickens, M., Porteous, D., Rotman, S. (2009). "Banking the Poor via G2P Payments." CGAP Focus Note.

Karlan, D., Morduch, J. (2010). "Access to Finance." Handbook of Development Economics.

Allen, F., Demirgüç-Kunt, A., Klapper, L., Martínez Pería, M.S. (2016). "The Foundations of Financial Inclusion." Journal of Financial Intermediation.

World Council of Credit Unions. "Statistical Report" (annual).

International Cooperative Alliance. "Guidance Notes on the Cooperative Principles."

For technical specifications of the protocol's APIs, schemas, and verification algorithms, consult the Circl Protocol Technical Reference, available at circlworld.com/technical-reference. For partnership inquiries and Lender API access, contact partnerships@circlworld.com. For general inquiries, hello@circlworld.com.

Appendix D. Continuity and Exit

The protocol's commitments to non-custodial operation, member-owned identity, and verifiable-without-Circl credentialing have implications for the question of what happens to member data, trust credentials, and the protocol's infrastructure in the event that Circl, the operating company, is wound down, acquired, or otherwise ceases its current form of operation. The present appendix addresses these scenarios explicitly.

Wind-down scenario.

In the event that the operating company is wound down — through voluntary cessation, insolvency, or any other operational endpoint — the protocol's architectural commitments produce specific outcomes that differ substantially from those of a custodial fintech in similar circumstances.

Member funds are unaffected by the protocol's wind-down. Because the protocol does not custody funds at any layer (rotation contributions, LLP support, CLP coordination, sponsorship), there are no member funds to be lost in an operating-company failure. Contributions, payouts, and outstanding loans are between the parties to those transactions, operating through their own payment rails and (in the case of the third-party lender pathway) under the regulatory supervision of those lenders' own jurisdictions. The wind-down of the protocol's operating company does not reach the member-to-member financial relationships the protocol coordinates.

Trust credentials remain verifiable. Because the verification system is built on open algorithms (Section 8) and the canonical JSON of any issued trust report is in the possession of the member and any counterparties they shared it with, the trust credentials retain their cryptographic verifiability after the operating company's wind-down. Where the verification endpoint at circlworld.com is no longer operational, counterparties can verify trust reports through any third party in possession of the appropriate signing key — and the signing keys are scheduled to be published at the end of their operational life (typically after the recheck period for the credentials they signed), specifically to support this scenario.

Member data is handled under the data protection commitments of the operating company's jurisdiction. In a wind-down, members receive notification of the cessation, an opportunity to export their data under the export rights described in Section 17, and a clear timeline for the deletion of data that the operating company is not legally required to retain. The retention obligations for AML, tax, and supervisory records are honoured under appropriate custodial arrangements; member data not subject to those obligations is deleted in accordance with member preference within the timeline established by the wind-down plan.

Acquisition scenario.

In the event that the operating company is acquired by another entity, the protocol's commitments — non-custodial operation, member-owned identity, verifiable-without-Circl credentialing — are intended to be preserved through the acquisition. The architectural commitments described in this paper are not merely operating policies that an acquirer could choose to reverse; they are structural features that would be expensive and disruptive to reverse, and an acquirer with interest in the protocol's value would be acquiring a system whose value derives precisely from those commitments. The thesis of this paper — that member-owned, verifiable, non-custodial credentialing is the protocol's principal asset — is also the structural protection of those commitments against acquirer behaviour.

Member rights — to data export, to credential revocation, to consent withdrawal, to account deletion — would be carried forward through any acquisition. The acquirer would inherit not only the protocol's infrastructure but its commitments to its members; any departure from those commitments by an acquirer would be subject to the data protection regimes of the jurisdictions in which members reside and to the supervisory engagement those regimes provide.

Successor protocol scenario.

A longer-horizon scenario worth considering is the emergence of a successor protocol — whether built by Circl's own team, by a partner, or by an independent third party — that wishes to provide continuity for the protocol's members and credentials. The architectural openness described in Section 8 (open canonicalisation, open signing algorithms) is structurally compatible with such successor scenarios. A successor protocol that wished to honour Circl-issued credentials could do so without permission from Circl, by verifying against the published signing keys; a member who wished to migrate to a successor protocol could do so by exporting their data and importing it into the successor. The protocol does not entrench itself against successors; it provides infrastructure on terms that any competent successor could, in principle, also provide.

> **CONTINUITY PROPERTIES**
>
> The protocol's architectural commitments — non-custodial operation, member-owned identity, verifiable-without-Circl credentialing — produce continuity properties that differ from those of typical custodial fintech. Member funds are not at risk in any protocol-failure scenario because the protocol never custodied them. Trust credentials remain verifiable because the verification primitives are open. Member rights carry forward through any operating-company transition because they are structural, not policy.

— end of paper —

Additional terms (v1.3)

Three-stakeholder model

The Circl architectural frame in which the platform has three stakeholder classes — members, the operating company, and treasurer partners — each with distinct economic relationships and ongoing alignment with platform success. See Section 5A.

Community Growth Program (CGP)

The partnership programme through which treasurers participate in the value they help create on Circl. Comprises activation bonuses, tiered residual earnings, retention and health bonuses, Identity Levels, and fee netting. See Section 18A.

Treasurer Partner

A Circl member enrolled in the Community Growth Program, operating as an independent contractor administering circles for other members. Governed by the Treasurer Partner Agreement.

Activation Bonus

A one-time payment of £5 (or 1,500 JMD, with equivalents in other jurisdictions) earned by a treasurer when a member they have introduced meets all six qualifying conditions. See Section 18A.1.

Tiered Residual

Ongoing percentage of Pro subscription revenue paid to the treasurer for members active in their circles. Tier 1 (1-50 active Pro members): 15%. Tier 2 (51-150): 17.5%. Tier 3 (151+): 20%. See Section 18A.2.

Retention Bonus

Percentage added to the treasurer's effective Residual rate based on how long their members have remained active. +0.5% for 90+ days, +1.0% for 120+ days, +1.5% for 150+ days.

Community Health Multiplier

Percentage added to the treasurer's effective Residual rate based on aggregate circle health. +2% for Healthy Community, +3% for Exceptional Community. Determined by eight composite metrics.

Identity Levels

Five-tier recognition framework for Treasurer Partners: Community Builder (10 active members), Circle Leader (50), Regional Coordinator (150), Community Partner (500), Circl Ambassador (1,000+). See Section 18A.4.

Fee Netting / Monthly Settlement

The mechanism by which Circl performs a single monthly transaction calculating: Activation Bonuses Qualified + Residual Earnings − Coordination Fees Owed. Most active treasurers receive net positive payments. See Section 18A.5.

AI Assist (Basic, Enhanced, Enterprise)

The three-tier AI capability layer. Basic (Claude Haiku) for everyday operational help. Enhanced (Claude Sonnet) for analytical depth. Enterprise (Claude Opus) for institutional analytics. All constrained to provide information, not advice. See Section 12A.

Coordination Fee

The monthly platform fee paid by the treasurer (typically passed through to circle members or absorbed by treasurer) for the protocol infrastructure. Tiered: 2.0% free, 1.5% Pro, 1.0% Business, with £35/circle/month cap and free exemption for circles ≤6 members and ≤£500/cycle.

Community Contribution Profile

Public-facing profile of a Treasurer Partner showing their Identity Level, active circles, performance metrics, and recognition history. Visible to potential members evaluating whether to join a circle the treasurer administers.