EverArcade & EverVault

White-Label RWA Vault Primitive + Optional Gamified On-Rampfor the XRP Ledger, Xahau, and Evernode
Whitepaper v1.0 – December 2025 Solo Founder & Lead Developer: @lj26ft (XRPL community member since 2016)Live prototype: everarcade.games textContact: admin@everarcade.games

Executive Summary

EverArcade & EverVault is a white-label DeFi primitive that enables any existing Qualified Opportunity Zone Fund (QOZF) to tokenize its limited partnership (LP) interests on the XRP Ledger (XRPL) using Denis Angell's smart-issuer framework, native EscrowCreate transactions for statutory locks, and Halo2 zero-knowledge (ZK) proofs for investor accreditation verification. This primitive is designed to be licensed by funds for a fee of 10–25 basis points (bps) on tokenized assets under management (AUM), providing a compliant, efficient path to on-chain RWAs without the primitive operator managing any funds or assets.

As a solo developer with experience in the XRPL community since 2016, I am building this infrastructure to address the gap in compliant tokenization tools for QOZs. The primitive is not a fund itself; it is the backend technology layer that funds integrate to offer tokenized exposure to their real-world assets, such as rural multifamily housing or renewable energy projects. The genesis Qualified Opportunity Zone Business (QOZB) will be my own rural East Tennessee initiative, serving as the first licensee of the primitive. This QOZB will use tokenized proceeds to fund infrastructure development for EverArcade, create local jobs in a designated rural opportunity zone, and qualify for enhanced tax incentives under recent legislation.

An optional gamified component, EverArcade, runs on Evernode HotPocket and serves as a user acquisition layer. It allows players to earn Arcade Tickets through gameplay, with top performers (top 3%) having the option to convert those Tickets into vault shares—driving engagement without forcing RWA participation on casual users.

Current Status (December 2025):
- **Production Evernode host operational with a 25-instance HotPocket cluster for game testing.**
- **Full vault Hook written in Rust and tested on Xahau AlphaNet.**
- **Halo2 ZK accreditation circuit compiled and ready for oracle integration.**
- **Landing page and developer documentation live on Vercel static hosting.**

Funding Ask: $250,000 from XRPL Grants to cover Hook audit, accredited-oracle integration, developer SDK, and initial 10 arcade titles. This funding accelerates mainnet deployment and positions XRPL as the premier chain for compliant RWAs.

Projected business model: $500,000–$1.25 million annual recurring revenue at $500 million tokenized AUM across licensees within 24 months.

We are not asking for money to buy real estate or manage a fund. We are asking for money to finish the infrastructure that lets every rural QOZ fund in America tokenize on XRPL tomorrow.

The Problem & Opportunity: Tokenizing QOZs on XRPL

The Qualified Opportunity Zone (QOZ) program, established under the Tax Cuts and Jobs Act of 2017 (Public Law 115-97), incentivizes investments in designated low-income communities by allowing capital-gains deferral and basis step-ups for long-term holdings. However, traditional QOZ funds face challenges in liquidity, accessibility, and compliance when attempting tokenization, particularly for rural projects that now qualify for enhanced incentives under the One Big Beautiful Bill Act (OBBBA, Public Law 119-21, effective 2025).

Rural QOZs offer a 30% basis step-up after five years (versus 10% for non-rural), reduced substantial improvement requirements (50% of non-rural thresholds), and targeted support for underserved areas. IRS Notice 2025-50 provides guidance on these rural designations, clarifying that tokenized interests in Qualified Opportunity Funds (QOFs) and QOZBs are compliant if structured as limited partnership equivalents under Regulation D Rule 506(c), with reasonable verification of accredited investor status.

The market opportunity is vast: $10 trillion in RWA tokenization by 2030, with QOZs representing a $1–2 trillion subset focused on real estate and infrastructure. Existing funds lack XRPL-native tools for tokenization, leading to reliance on less efficient chains like Ethereum (high gas fees, upgrade risks) or centralized platforms (custody issues). EverVault addresses this by providing a white-label primitive that funds can integrate without altering their core operations.

My genesis QOZB in a rural East Tennessee census tract will be the first to license the primitive, using tokenized LP interests to fund infrastructure for EverArcade and create 10–50 local jobs in development, testing, and community moderation—demonstrating the primitive's real-world utility while qualifying for OBBBA rural incentives.

Solution: The EverVault Primitive

EverVault is a modular, white-label DeFi primitive for tokenizing QOZ fund LP interests on XRPL. Funds deploy their own blackholed issuer account and integrate the primitive's Rust-based Hook, which handles minting, locking, and distribution in a compliant manner. The primitive does not hold assets, manage funds, or act as a custodian—it is purely the on-chain technology layer.

Detailed Mechanics

- **Core Workflow:** An accredited investor connects their Xaman wallet and completes one-time verification with a licensed provider (e.g., Parallel Markets or Secfi, integration targeted for Q1 2026). The provider issues a signed JSON, which the frontend uses to generate a Halo2 ZK proof. This proof is submitted to the Hook, which emits an atomic batch: MptIssue for fractional LP shares from the fund's blackholed issuer, EscrowCreate for the 10-year lock to the fund's multisig, and TrustSet for auto-acceptance with tfSetNoRipple flag. The resulting vault token (e.g., QOZB-RURAL-001) represents compliant LP interests in the fund's rural assets.
- **Yield Distribution:** Monthly payouts (8–12% projected from fund operations like rents) are handled via a deterministic Xahau Hook triggered by ledger_time, emitting batches to investor wallets in RLUSD for stability (integration planned Q3 2026). Oracle feeds (Chainlink-like) verify asset performance and compliance in real-time.
- **Compliance Integration:** Under Reg D Rule 506(c), funds can generally solicit investors if accreditation is verified—our ZK proof ensures this without data exposure. The 10-year EscrowCreate meets QOZ holding requirements under IRC §1400Z-2, and the rural focus unlocks the 30% step-up under OBBBA. Trap avoidance: Blackholed issuers prevent any modifications post-deployment; Hooks ensure atomic execution.
- **Technical Specs:** Rust-based Hooks deployable via xrpl-contracts CLI to Xahau. Scalability: Evernode offloads oracle verification to avoid ledger bloat. Full source public on GitHub for funds to review.

The primitive is AlphaNet-ready today, with mainnet gated on grant-funded audit.

EverArcade: The Optional Gamified Acquisition Layer

EverArcade is a separate, optional component running on Evernode HotPocket, designed to acquire users for funds licensing the vault primitive. It is not required for the primitive's core function but provides a compliant on-ramp for crypto-native investors.

- **Gameplay and Monetization:** Developers deploy WebAssembly (WASM) games from Godot or Unity using evrs deploy mygame.hp --peers 25, creating eternal, gas-free experiences on a decentralized host cluster. Players pay micro-fees (0.1–1 XRP) via Xaman, with pathfinding accepting any XRPL token. Earnings come as Arcade Tickets (fungible XRPL IOU), redeemable for in-game perks like skins or tournament entries. Developers keep 90–99% of revenue after a 1% protocol fee.
- **Opt-In Vault Conversion:** After accumulating 50,000+ Tickets (top 3% of players), a hidden tab appears allowing optional conversion to vault shares in a licensed fund's QOZB. This drives engagement without forcing RWA participation—99% of players stay in the casual loop.
- **Community Benefits:** The genesis East Tennessee QOZB will use tokenized proceeds to fund EverArcade infrastructure, creating 10–50 remote and local jobs in game testing, moderation, and development, aligning with OBBBA's rural job creation incentives.

EverArcade is production-host-ready today, with initial titles deployable post-funding.

For Game Developers: Building and Monetizing on EverArcade

As a developer, you face high fees and gatekeeping on platforms like Steam. EverArcade offers a decentralized alternative on Evernode, where you retain full control.

- **Deployment Process:** Use the starter kit on GitHub (everarcade/starter-kit). Compile from Godot/Unity to WASM: godot --export wasm mygame.hp. Deploy with evrs deploy mygame.hp --peers 25 to a cluster for 24/7 availability. HotPocket consensus handles state without gas fees, enabling multiplayer leaderboards.
- **Monetization Model:** Set pricing for purchases/entry fees, paid via XRPL pathfinding. Keep 90–99% after 1% fee. Optional: Integrate vault conversion for top players to boost retention.
- **Advantages Over Steam:** No approval or censorship; eternal persistence; built-in MPT NFTs for items; crypto-native players. Avoid vendor lock-in with modular bundles—update without full redeploy. SDK with modding APIs ready Q2 2026. Scale via Evernode leases.

Licensees can use EverArcade as a branded on-ramp, paying you per integration.

For Institutional Investors and Family Offices: Accessing Rural QOZ Benefits

You seek liquidity and diversification in RWAs, but compliance is key. EverVault provides a Reg D 506(c)-compliant wrapper for funds to tokenize LP interests, with minimum entry $100,000 equivalent (post-licensing).

- **Vault Mechanics and Compliance:** Personalized MPT token from fund's blackholed issuer. ZK proofs (Halo2) verify accreditation under Rule 506(c) without data exposure. Deposits trigger EscrowCreate for 10-year lock (IRC §1400Z-2). Yields (8–12%) distribute via Hooks in RLUSD (Q3 2026).
- **Rural 30% Step-Up Benefits:** When licensed by rural QOFs, qualifies for 30% basis reduction after five years under OBBBA. Oracle verifies compliance. Genesis QOZB invests in East Tennessee multifamily/broadband for job creation.
- **Safety and Risk Mitigation:** Blackholed issuer + Hooks determinism eliminate exploits. No custodian—your wallet signs all. Liquidity on XRPL DEX post-lockup with AML gates. Audits funded by grant.
- **Investment Appeal:** Aggregated oracle reporting avoids K-1s. Projected $120M AUM across licensees in 12 months. Acquisition potential from BlackRock/Figure.

Consult advisors—primitive launches mainnet Q1 2026.

For Arcade Players: Engaging Gameplay with Optional Rewards

EverArcade offers classic arcade fun with crypto twists, no RWA knowledge required.

- **Gameplay Experience:** WASM ports like Doom run in-browser. Pay micro-fees via Xaman (pathfinding for any token). Earn Tickets for wins, redeem for skins/power-ups/tournaments ($10,000 XAH pots). Leaderboards/daily quests drive retention.
- **Progression:** Tickets as IOU in wallet, spendable in-game. No forced investments—casual path only. Optional vault tab unlocks at 50,000 Tickets for yield conversion.
- **Why Return:** Gas-free on Evernode; community mods/events. Skill-based balance avoids pay-to-win.

Built for enjoyment, with deeper layers voluntary.

For Crypto Natives and the Ripple Community: Enhancing the XRPL Ecosystem

EverArcade & EverVault boosts XRPL utility without speculation.
- **Ties to Xahau/Evernode/XRPL: Games on Evernode (HotPocket consensus/host disk), payments on XRPL (pathfinding through XAH), vaults on Xahau (Hooks for escrows/mints). Increases liquidity without bridges.**
- **Ecosystem Goals: 1.5M projected daily txns from arcade; institutional AUM from vaults. Proves Hooks for regulated securities with RLUSD yields. Natives earn EVR staking hosts. Genesis QOZB aligns with real-economy focus.**
- **Addressing Concerns: Purposeful txns only; Reg D/OBBBA compliance avoids backlash. Modular design separates fun from finance.**

Join as player/hoster—strengthen XRPL.

Technology Stack

Layer	Technology	Status
Games	Evernode HotPocket (Rust/JS/WASM)	Production host live
Payments	XRPL Pathfinding	live
Vaults	Xahau Hooks + Angell issuer	AlphaNet Pototype
Accredication	Halo2 ZK + oracle (Parallel Markets)	Circuit done; integration Q1 2026
Frontend	React + Xaman + Vercel	Q1 2026

The XLS 101d Smart-Issuer + Blackholed Account Framework

Uses 101d pattern with blackholed issuer (sent to r111… post-creation):
- **No freeze/clawback possible.**
- **Tokens move only via immutable Hook.**
- **Live on Xahau Alphanet since Nov 2025, proposed for Xrpl**

Why XLS 101d will make EverVault the Safest RWA Vault Built

Feature	Design	Why Safer
Issuer	Blackholed	No Keys exist
Minting	Immutable Hook	No Admins
Funds	Escrow Create	Consensus-Enforced
Atomicity	emit_batch	All or Nothing
Accrediation	On-chain ZK	No Data Breach
Yields	Deterministic Hooks	NO MEV
Upgrades	None	No Exploit vector
Custody	Investor Wallet	Self Signed

Superior to Solana and Ethereum by design