DIGITAL CORALS

Building the World's Largest Reef-Keeper Community and Coral Biobank on the XRP Ledger

WHITE PAPER

2026 Edition · v1.0

Abstract

Digital Corals is a Web3 platform that connects the global reef-keeping community through verifiable, on-chain records of the coral, fish, and aquarium assets hobbyists already keep and care for. Built on the XRP Ledger, the platform turns everyday reef-keeping activity — adding a coral, fragging a colony, updating a tank — into permanent, ownable digital records, while rewarding participation with SALT, a fixed-supply utility token native to the ecosystem.

The goal is not to replace the hobby but to give it infrastructure it has never had: a shared, tamper-proof registry of what is being kept, by whom, and where — alongside a community-owned economy that rewards contribution and channels a portion of collective will towards real-world coral reef conservation. This paper sets out the problem Digital Corals addresses, the architecture of the platform as built, the mechanics of the SALT token, and the roadmap ahead.

1. The Problem

Reef keeping is a large, passionate, and global hobby, but it is also a fragmented one. Coral colonies are propagated, fragged, sold, gifted, and passed between keepers constantly — yet almost none of that activity is recorded anywhere durable. A coral's lineage, its country of origin, who has kept it, and how it has been fragged and shared across a community typically exists only in scattered forum posts, private messages, or nowhere at all.

This creates three compounding problems:

- No shared record of provenance — there is no reliable way to verify where a coral or fish originated, who has kept it, or how many times it has been fragged and redistributed.
- No community-wide economy — the hobby has no native way to reward the keepers who do the most to grow and circulate the hobby's collective stock of coral and fish.
- No structural link to conservation — despite a hobby built entirely around marine life, there is no built-in mechanism connecting everyday reef keeping to real-world reef protection.

Digital Corals was built to solve all three at once: a permanent, on-chain biobank of the hobby's assets; a token economy that rewards the keepers who build it; and a direct, transparent channel from the community to real coral conservation organisations.

2. Vision and Mission

> *To build the world's largest community-owned coral biobank, and the reef-keeper economy around it.*

Digital Corals exists to give the global reef-keeping community a shared, permanent, and verifiable record of the coral, fish, and tanks it collectively keeps — and to build a self-sustaining economy on top of that record that rewards participation and funds real-world conservation.

The mission breaks down into three pillars:

- Biobank — every coral, fish, and tank registered on Digital Corals becomes a permanent, verifiable on-chain record, building towards a complete public archive of the hobby's living collection.
- Economy — SALT, the platform's fixed-supply token, rewards keepers for registering and maintaining their assets, creating a community-owned economy around participation rather than speculation.
- Conservation — through the Coral Conservation Partners programme, the community directs a share of its collective voice towards real reef protection organisations, connecting the digital hobby to physical-world impact.

Digital Corals is built as a global platform from day one. The hobby itself has no borders — reef keepers in the UK, the United States, Europe, and Asia all keep, frag, and trade the same corals — and the platform's architecture (multi-region registration, global conservation partners, an XRPL backbone with no jurisdictional gatekeeping) reflects that from the outset.

3. The Platform

Digital Corals is a full-stack Web3 application built on Next.js, with the XRP Ledger as its on-chain backbone, Supabase for off-chain application data, and Stripe for fiat payment processing. Every coral, fish, or tank registered through the platform is minted as an NFT on the XRPL, with metadata describing the asset stored via IPFS.

3.1 Core Registration Flows

The platform is built around three core actions that mirror how reef keepers actually interact with their collections:

- Add One — register a brand-new coral, fish, or tank into the biobank for the first time, capturing genus, species, coral name, country/area, and a photo.
- Update One — update an existing record (for example, a change of location or a new photo) without altering its locked, verified core attributes.
- Frag One — register a new frag propagated from an existing coral, automatically inheriting the mother coral's lineage data while crediting the frag to the connected wallet's own registered identity.

Every registered coral records its asset type, genus (drawn from structured Soft/LPS/SPS coral or fish-type taxonomies), country or area, and a verified mint date — producing a dataset of provenance and lineage that has never existed for the hobby at this scale.

3.2 The Dashboard

Each registered keeper has a personal dashboard showing their connected wallet, their NFT collection, and live XRP and SALT balances. From the dashboard, keepers can browse their own assets, track where their coral has travelled via the Spawn Map, search the full on-chain Biobank of every Digital Corals asset ever minted, or look up any other keeper's public collection.

3.3 Community Features

Beyond individual record-keeping, the dashboard surfaces platform-wide community tools:

- Community Targets — live, on-chain counts of total coral, fish, and tank records against published community milestones, calculated directly from XRPL mint data.
- Community Polling — a lightweight governance tool allowing the community to vote on platform decisions.
- Coral Conservation Partners — keepers allocate a percentage of their future ecosystem rewards across real-world reef conservation organisations; the aggregated community allocation gives Digital Corals a transparent, crowd-directed figure to guide actual fund distribution.
- Total Value Coral Locked (TVCL) — a live, chartable metric estimating the aggregate value of all coral records held within the ecosystem, tracked over time.

4. The SALT Token

SALT is the native utility token of the Digital Corals ecosystem, issued on the XRP Ledger. It exists to reward the keepers who build and maintain the biobank, and to give the community a native medium of value within the platform's marketplace.

4.1 Supply

SALT has a fixed total supply of 100,000,000,000 (100 billion) tokens. There is no ongoing or inflationary issuance beyond this fixed cap — every SALT token in existence is drawn from this single, permanently capped pool.

4.2 Earning SALT

SALT is earned by registering assets into the Digital Corals biobank. Each asset type — coral, fish, and tank — carries its own fixed SALT reward, set per registration rather than scaled by perceived rarity or value. This keeps the reward structure simple, predictable, and resistant to manipulation: a keeper knows exactly what registering a coral, fish, or tank will earn before they do it.

4.3 Spending and Burning

SALT can be spent within the Digital Corals marketplace. When SALT is spent, it is burned — permanently removed from circulating supply rather than recycled back to the platform or other users. This creates a genuine deflationary pressure on the fixed 100 billion supply over time: every transaction that uses SALT for its intended purpose permanently reduces what remains in circulation.

Parameter	Value
Total fixed supply	100,000,000,000 SALT
Issuance model	Fixed cap, no further minting
Reward mechanism	Fixed amount per asset type, on registration
Spend mechanism	Marketplace purchases
Effect of spending	Burned — permanently removed from supply

Table 1 — SALT token parameters.

This earn-and-burn design ties SALT's circulating supply directly to two real behaviours: how much the community is actively growing the biobank (earning) and how much it is actively using the marketplace (burning). Both are signals of genuine platform health rather than speculative trading volume.

5. Conservation Partners

Digital Corals believes coral conservation should extend beyond the aquarium and into real-world reef protection. The Coral Conservation Partners programme lets every keeper allocate a percentage of their future ecosystem rewards across vetted, real conservation organisations — currently the Palau International Coral Reef Center and the Coral Restoration Foundation, with the architecture built to support additional partners without any redesign.

Each keeper's individual allocation is private; what matters at the platform level is the aggregated community average across all participating wallets. That figure — visible to the community in real time and to the Digital Corals team in the admin panel — becomes the transparent, crowd-directed signal used to guide actual fund distribution to conservation partners.

This is deliberately built as infrastructure for direct on-chain giving in future phases (see Section 6), rather than a one-off donation gesture. The mechanism exists; the next step is connecting it to real XRPL and SALT-denominated transfers.

6. Roadmap

Digital Corals is live and operating today. The roadmap ahead focuses on deepening three areas already built into the platform's foundations: token utility, conservation impact, and community governance.

6.1 Near Term

- Move from test to live payment infrastructure, completing the transition to production Stripe processing.
- Formal SALT token registry submission, establishing SALT's public presence across XRPL token directories and trackers.
- Automated monthly snapshots of community conservation allocation, giving a permanent historical record of how community sentiment shifts over time.

6.2 Medium Term

- SALT distribution engine — automating the reward issuance that currently runs through manual admin processing, so registrations trigger SALT payouts directly.
- Direct on-chain conservation giving — connecting the Conservation Partners allocation mechanism to real XRP and SALT transfers, so community-directed funding flows automatically rather than via manual distribution.
- Expansion of the conservation partner roster beyond the initial two organisations, governed by Community Polling.

6.3 Long Term

- Grow the biobank towards its goal of becoming the largest verifiable, community-owned record of coral, fish, and tank assets in the world.
- Deepen marketplace utility for SALT, expanding what the token can be spent on within the ecosystem.
- Continue building Digital Corals as global infrastructure for the reef-keeping hobby — not a UK platform with international users, but a platform built without borders from the outset.

7. Closing

Digital Corals starts from a simple observation: a global hobby built entirely around living things has never had a shared, durable record of what it collectively keeps. By putting that record on the XRP Ledger, rewarding the keepers who build it with a fixed-supply token, and giving the community a transparent channel to direct real conservation funding, Digital Corals aims to become the infrastructure the reef-keeping hobby has been missing — not a replacement for the hobby, but the backbone underneath it.

Digital Corals