

## **Clarity Development Updates**

### **Development Progress Report 1**

**5/13/2022**

- Produced a 'code guide' and used it to produce a 'code tour' of the existing work.
- Organized and coordinated sprint meetings and 1:1s.
- Held an inaugural sprint meeting.
- Initialized and configured a new repository for hosting the off-chain code.
- Produced an off-chain "road map" for assigning tasks.
- All developers on the projects attended Agora code tour and introductory sprint.
- All developers have the project configured and working locally.
- Developers familiarized themselves with CTL examples relevant to this project.
- Looked through the existing code-base independently, with the help of the provided guide.
- Have looked through existing Agora documentation to better understand governance concepts.
- Developers have been learning Plutarch to help them understand the existing code-base, as for some this is their first time using it.
- Developer has been assigned to create the 'governor initialization transaction'.
- Developer has been assigned to create the transactions dealing with the creation of 'stakes'.

### **Development Progress Report 2**

**5/20/2022**

- Continuing to work on governance initialization, running tests on testnet through CLI, so we are able to work with scripts from Agora on-chain in the off-chain repository.
- Began writing the transaction that will allow users to alter the amount of governance tokens locked by their stake.
- Added another developer to the Plutus team. This is an MLabs consultant who has been working with the Liqwid project on-and-off since September. They contributed to the development of CTL and will be able to assist us in developing off-chain code.
- Reported MacOS issues with Plutus to the CTL maintainers and sought workarounds in the form of configuring a virtual machine and installing NixOS on a different laptop.
- Had discussions with Liqwid Labs CTO regarding how to best establish a combined workflow for developing the Clarity protocol on top of the Agora governance module they are building.

### **Development Progress Report 3**

**6/01/2022**

- Collaborated on drafting-up milestones for the Agora off-chain component.
- Made good progress on governor initialization issue.
- Worked on smart contract required for minting the governor's 'state thread token'.
- Received review on work from Liqwid CTO Emily Martins and implemented her suggestions.
- Did some preliminary work on React/TypeScript with a view to setting up a "development dashboard" that the project can use for testing.

### **Development Progress Report 4**

**6/03/2022**

- Expanded and ported over issues and milestones into GitHub issues.
- Added issues and milestones to newly re-organized project board.
- Had to work on a patch resulting from errors resulting from a CTL version bump. Issue now resolved.
- Written all of the logic for the governance initialization transaction.
- working to fix issues arising from running the transaction in the browser.
- Testing/debugging.
- This is slowed by the intermittent need to re-sync the test-net chain.
- Researched and found solution for a type mismatch problem. Added solution to a PR, which should be merged by EOD.
- Working on refactoring existing code, based on newly-established CTL best practices.

### **Development Progress Report 5**

**6/09/2022**

- Continued work on stake creation contract.
- PR reviews.
- Encountered issues with Docker, which prevented from testing stake creation contract.
  - Identified cause of issue and now resolved.
- Continued to work on his governor initialization task.
- Encountered an EvalExUnitsAndMinFeeError whilst testing contract, which appeared nonsensical, running the contract with the requisite value.
  - Collaborated closely with the Liqwid and CTL teams in an attempt to debug the issue.
  - Produced a minimum reproducible example for the CTL team to debug.

- The work with the CTL team has led to them writing up [this issue](<https://github.com/Plutonomicon/cardano-transaction-lib/issues/509>), which has now been resolved. This means that CTL now better informs the developer of what precisely has failed and allow them to resolve the issue quicker in-future.
- Now working on refactoring his existing work to utilize the new AgoraContract schema.
- This should help uncover the underlying script issue.

### ### ZuriHac

- All Agora members apart from two will be away for most of next week due to ZuriHac.
- The team members not at ZuriHac have been informed that the tasks they should focus on should be (in priority-order):
  1. Finish work on the governor initialization contract.
  2. Finish work on the stake creation contract.
  3. Create a React/TypeScript application as a proof-of-concept to identify best practices for bundling our PureScript code into a consumer-facing application.

## **Development Progress Report 6**

### **6/17/2022**

- Various smaller tasks have been completed: CTL upgrade, purescript-bridge upgrade, re-compiling scripts for the frontend
- Almost completed the first milestone, governor initialization
  - This has been complicated by some tricky bugs with ToData/FromData instances for the GovernorDatum
  - The Purescript and Haskell instances weren't matching without an immediately obvious cause
  - Hopefully this has been resolved by using CTL's more recent approach for creating Haskell-compatible instances
  - Another error has appeared ("Referenced utxo should be spent") during ex unit calculation
  - Investigation is ongoing for this

## **Development Progress Report 7**

### **6/24/2022**

- Team returned to full-time on Wednesday.
- Re-organised GitHub repository.
- Now offers developer-friendly features, including continuous integration.
- Created a new project board

- Collaborating with Liqwid Labs CTO on the best method to port our on-chain PureScript bridge functionality, in order to prevent future issues
- Managed to identify and fix the issue preventing completion of the governor initialization contract.
- Submitted his PR for review; which is on-going.
- Merging of this branch and completion of a corresponding endpoint specification will represent the completion of Milestone 1.
- Moving onto writing the proposal creation contract.
- Added and on-boarded new team member onto the project.
- Initial task will be to implement continuous integration in the repository.
- We are finalizing and developing the design of the Clarity community website and governance NFT

Outside of development we have submitted catalyst proposals to fuel the continuous development of Clarity. We would love your feedback and support.

- Clarity DAO Infrastructure: <https://cardano.ideascale.com/c/idea/414257>
- Clarity DAO Incubator: <https://cardano.ideascale.com/c/idea/414261>
- We have reserved a booth at the rare bloom event, we hope to see everyone there!!

## **Development Progress report 8**

### **7/01/2022**

- Stake creation had to be delayed, as the developer responsible for stake depositing and withdrawal was required to assist in the new script porting method. Once stake d/w is merged, M2 will be complete. This should be done by the 8th July.
- We have migrated how we port scripts (validators and minting policies) from on-chain to off-chain.
  - Will improve developer experience and make it quicker to implement fixes in the on-chain code to the off-chain code.
  - Required a re-factor of existing and in-progress smart contracts.
- Developer dashboard has been implemented and merged.
- We are working on a solution to porting PureScript types that does not break on ARM-based Mac computers. Should be implemented before EOW.
- Stake creation contract has been finished and merged this week.
  - Once the contract for adding and withdrawing GT from a stake is completed, this will represent the completion of Milestone 2.
- Began work on proposal advancement contract.
- Worked on new data type bridging solution.
- PR reviews, general project management.
- Governor initialization work and endpoint specifications were merged late last week.
  - This represents the completion of Milestone 1.

- working with Liqwid Labs CTO on debugging an issue that appeared during the transition to the new script porting method.
  - Problem has now been identified and rectified.
- worked to merge the new script porting method into staging, so all Agora off-chain developers could begin to use it ASAP.
- started initial work on the proposal creation smart contract.
- working on introducing continuous integration (CI) into the Agora off-chain repository.
- finished this work and submitted it for review.

## **Development Progress report 9**

**7/15/2022**

- The team is onboarding an additional project manager.
  - CI is working (using MLabs Hydra now)
  - Proposal creation is under review, will finish the third milestone
  - The bulk of the stake manipulation work is done
  - Proposal advancement development is going well
- we've hit a bug with ogmios-datum-cache. There's a fix for it under review on ODC repo (should be merged soon)

## **Development Progress report 10**

**7/22/2022**

- Project experienced delays due to the Ogmios datum cache error mentioned in last week's review.
  - This has now been overcome.
- Stake manipulation has been reviewed and merged.
  - This represents the completion of the 'Stake creation' milestone.
  - This will allow us to test proposal creation.
    - We aim to have proposal creation merged by the middle of next week.
    - This would represent the completion of the 'Proposal creation' milestone.
- Project has undergone a minor re-factor to improve the developer experience.
- We have spent some time this week documenting project knowledge onto our Notion area, in order to better share and retain organisational knowledge.
- A stake destruction PR has been reviewed and will be merged before EOD.
  - This feature was not part of any milestone and came about naturally as part of the work one of our developers did towards stake manipulation.
- working to clear blockages for the rest of the Agora off-chain development team.
- begin to expand already created issues, re-organizing existing milestones, and creating new ones.

- data representation work from last week has been merged.
- testing proposal creation work.
- began working on proposal voting.

## **Development update report 11**

**7/29/2023**

- There was a delay with testing early this week due to an issue with cardano node. This has been resolved.
- Stake destruction has been finished and merged.
- We are testing proposal creation. Got a transaction working yesterday, but it required removing a time requirement. The issue with timing is related to the current cardano era ending in a few days. We have a work around and is hoping to have it working fully by the end of today.
- We are working on proposal voting. Started testing today using the current version of proposal creation since the final changes to proposal creation shouldn't affect voting.

## **Development report 12:**

**8/05/2022**

- We've added some new milestones which I'm going to go through this afternoon and refine.
- Finished and merged proposal creation. He's working on proposal advancement.
- Continuing to work on proposal voting.
- Development of Clarity off chain Governance has begun

## **Development report 13:**

**8/12/2022**

- Working on proposal advancement.
- Got the initial transition (Draft -> VotingReady) working in a browser and we're working on merging that in a separate PR from the rest of the advancement workflow. That PR is currently in review but I expect it can be merged by the EOD.
- Working on voting.

Got it working in the browser too and been tidying up the code for review. It does depend on the first transition that we have been working on, so that will have to be merged first but I have been working with a branch with the changes merged in so we should be able to get changes merged in shortly after.

## **Development Update report 14:**

**8/19/2022**

- Continuing to work on proposal advancement. He has got the Voting Ready -> Locked transition done and the Locked -> Finished transition is working, but it needs more work since it doesn't currently account for effects and distributing GATs.
- Finished and merged proposal voting at the start of the week and have been working on vote retraction. That is now completed and ready for merging.
- We will be launching a internal community governance application later today, stay tuned

**Development update report 15:**

**8/26/2022**

- Continuing to work on proposal advancement. Have encountered some issues with the script size being too large. We are looking into the use of reference scripts to fix this.
- We are working on a transaction to run the treasury withdrawal effect once it has a GAT.
- Iterated on the Clarity Community governance app. You can check it out here: <https://clarity-bounties.web.app/>

**Development update report 16:**

**9/02/2022**

On chain development update:

- We have been continuing to work script size issues. This is hopefully going to be fixed by a change to agora on-chain which removes the need for stake validation in proposal advancement transactions. In the meantime he's going to be working on testing with Plutip.
- We have been working on the Treasury Withdrawal Effect. The code is probably done and has been submitted for review.

UX/UI development update:

- MVP planning & scoping
- Defined web app routes for file structuring
- Defined & assigned all components for the implementation of MVP app

**Development update report 17:**

**9/09/2022**

On chain progress:

- Re-designing PM systems to improve access to information and minimize time spent accruing information.
- Re-designed GH issue template to promote devs breaking tasks into smaller steps, facilitating a more rapid PR-merge cycle.
- Reviewed code improvement PR; been merged.
- Reviewed CTL bump; will be merged EOD.
- Been working with team to rebase our code onto the CTL branch which will allow us to run smart contracts on the altered test-nets.
- On-boarded a new team member, and provided them with a high-level overview of the Agora system.
- working on integrating Plutip into our off-chain code. This will improve our testing and development experience.
- Updated our entire project to accommodate the changes that have been made to CTL due to the changes to the test-net, this is a requisite for us being able to run contracts again.
- final proposal advancement branch was merged. We now have the entirety of proposal advancement implemented.
- New team member added to all the relevant channels, and has been invited to the weekly Friday call, so he has the opportunity to ask any new questions.
- Started work on the co-signature transaction
- Finished the co-signature code, needs to test when test net update implemented
- assisting with PR reviews, and setting medium-term goals
- written a significant code improvement and clean-up branch, which will be merged by end of week. Furthermore, stake delegation has almost been completed.
- merged the treasury withdrawal effect branch. This will prove very useful in serving as a template for any further effects we wish to bundle into Clarity.

#### UX/UI development

- Initialized NextJS app built with Typescript which we will be using for V1
- Prioritized components in MVP
- Started creating shared components

### **Development update 18:** **9/16/2022**

- Update CTL to v2, now supports babbage features
- Manually tested cosign contract
- Private testnet tests with plutip
- Update offchain code to support latest onchain
- Try out babbage features - mainly reference scripts
- Continue with plutip tests



## **Development update 19:**

**9/23/2022**

- Finished the create a DAO web flow that allows users to create new DAOs by filling out a multi-step online form. The data is being handled properly, and is ready to be integrated with on-chain actions.
- Allow users to 'spotlight' a DAO. This allows users to choose which DAO they want to see information about. All of the pages on the app will respond to this, showing the relevant information (ie: proposals, staking information, etc.) for the spotlighted DAO.
- Create a proposal flow is successfully submitting data regarding proposals. Still some work to do here to extend the types of proposals that can be created and allow for user-created proposal templates.
- Integrate Emurgo serialization library, to access policyIDs and multi-asset information from user wallet. This will allow displaying DAOs dynamically based on DAO tokens the users hold.
- Beginning to plan front end integration
- Making great progress on plutip tests, creating governor tests, continuing with tests
- Inline datum for stake UTxO
- Reference scripts, simple cases only but working on it

## **Development update 20:**

**9/30/2022**

- Built out user flows for creating a proposal.
- Explore DAOs page working
- Built out staking forms to allow creation, editing, and deletion of stakes.
- Querying user's wallets for Governance Tokens
- Filtering DAO options to show DAOs relevant to user's holdings for quick access.
- Simplify reference script deployment process
- Enable plutip tests on CI (dealing with nix)
- Research/discussion about voting incentives
- Merge majority of plutip tests!
- Discussion about effect registry

## **Development update 21:**

**10/07/2022**

- Allow users to manage their favorite DAOs for quick access
- Building out the page to view and interact with one proposal

- Building nix environment to handle spinning up services for developers the complete the user interface integration with Agora smart contracts
- Parametrized proposal creation
- Plutip time conversion bug/issue
- Audit in progress
- Works on Effect registry

## **Development Update 22:**

**10/14/2022**

- Agora off-chain environment setup completed
- Agora bundle built
- Currently researching SeaBug on how to complete the front end integration
- Plutip epoch length issue finally resolved and running on CI
- Querying stakes
- Voting with delegated stakes
- Testing all of the above
- Querying proposals
- Update Agora onchain
- Effect registry is feature complete - some minor cleanup in progress
- Agora onchain audit still in progress, found some missing checks, nothing impossible to fix

## **Development Update 23:**

**10/21/2022**

- Got all necessary services running for frontend to interact with smart contracts
- Building out ability for customizable UI/UX
- Showing all data for a given proposal
- Adding Dark Mode
- Voting with delegated stakes merged
- TypeScript API exports
- Proposal querying
- Agora onchain bump
- Tests for rest of the workflow
- Audit ongoing, no concerning finding so far, everything already fixed
- Tests for effect registry

## **Development Update 24:**

**10/28/2022**

- Finished Dark Mode
- Built admin dashboards to manage Clarity DAO profiles
- Creating template building flows to allow users to create their own proposal templates with customizable smart contract effects
- Debugging issues related to Emurgo Serialization library
- All workflow endpoints exposed in TS API
- Drafts of Voting Rewards and DAO Contributor Account done
- Onchain repo setup, CI setup waiting for approval
- Some vulns found in Agora, fixes already in PRs

## **Development update 25:**

**11/04/2022**

- Improved documentation for future users/developers
- Standardized views for more consistent user actions
- Fixing Agora packages/NextJS incompatibility
- Refactoring on chain vs off-chain storage
- Minor UI bug fixes
- Specs reviewed
- Started work on Voting Rewards Validator and DAO Contributor NFT policy
- More agora-offchain convenience function added

## **Development update 26:**

**11/11/2022**

- Finishing voting reward validator
- Tooling: Benchmark framework, CTL bridge is able to bridge all Agora types
- Troubleshooting Webpack bundling issues
- Onboarded another core team developer
- Reassigning core developer main responsibilities
- Created Genius DAO front end

## **Development Update 27:**

**11/25/2022**

- Adding webpack configs to our nextJS app
- Opening issue with agora-offchain repo
- Debugging/Integrating agora with our NextJS app
- Voting Rewards V1 merged , V2 in progress
- More testing, some bugs caught
- Tooling: Testing utils, Yet another Plutarch + QuickCheck framework

## **Development Update 28:**

**12/09/2022**

Clarity Protocol Infrastructure and Webapp

- Importing functions from agora-offchain typescript bundle —> Completed
- Importing type interfaces from agora to our app —> Completed
- Data type required from bootstrap function —> Completed construction
- invoking bootstrap fails due to Insufficient Funds in the Nami wallet
  
- Voting rewards V3 merged (final version)
- Dao Contributor NFT V2 merged
- Started work on Extended Treasury Withdraw Effect (preserves delegations, allows interaction with batchers)
- Scheduled a meeting with MinSwap person
  
- Making more parts of the UI customizable for whitelable solutions
- Fixing minor frontend bugs to improve UX
- Simplifying frontend states
- UI demos for closed beta

Governance App

- Set up DevOps flow
- Refactor codebase to eliminate errors and improve scalability
- Move database and voting logic to server-side code
- Create proxy route for secure Blockfrost integration
- Implement security headers and middleware checks
- Implement form validation on the front-end
- Implement data validation on the back-end
- Minor improvements to UI

## **Development Update 29:**

**12/16/2022**

- Extended treasury withdraw effect (almost) ready
- Finished config update effect in review
- DAO owned stake key/delegations DAOs can vote on spec done
- Insufficient Tx Inputs error fixed
- Troubleshooting node problem, trying schema fixes
- Creating Redux Slices in parallel with off-chain integration
- Preparing for closed beta governance portal launch

- Adding wallet signatures and improving backend security for production level governance portal.

#### Governance App

- Allow users to edit and delete bounties/proposals
- Correct time management so deadlines are a single point in time
- Allow users to remove votes from submissions
- Allow admins to limit submissions to just admins
- Restructure old data to match new data structures
- Research Firebase security and begin testing admin package
- Set up Genius app
- Add wallet signing
- Begin experimenting with governance app dashboard

#### Integration of onchain infrastructure and front end

- > Insufficient Tx Inputs error fixed (Split utxos in wallet)
- > Broken node problem still not fixed (trying shared deployment schema)
- > Started creating Redux Slices in parallel with integration stuff, so we can save time for the web2 work (not pushed yet)

## **Development Update 30:**

**1/06/2023**

#### Governance App

- Small UI updates and bug fixes
- First steps towards DAO dashboard
- Upgrade Blockfrost integration
- Onboarding beta users for governance app

#### Clarity Protocol

- Onchain & offchain updated to post-audit Agora
- Treasury withdrawal fee almost in review
- Starting testing DAO owned staking key
- Creating typescript interfaces all around Proposal & Governor params
- Connecting to the shared deployment to solve node issue

## **Development Update 31:**

**1/13/2023**

Crystal (formerly known as governance app)

- Disallow voting prior to submission deadline
  - Create backend for DAO dashboard
  - Create frontend for DAO dashboard
  - Create initial DAO profiles in database
  - Begin testing dashboard
- 
- Improved snapshot function for governance app
  - Governance app mobile responsive updates
  - Clarity app UI/UX improvements
  - Clarity app form validation

#### Clarity Protocol

- Configured shared deployment
  - Synced node properly
  - Connected wallet properly via agora
  - testing bootstrap function (pending)
- 
- Treasury withdrawal fee merged
  - DAO owned staking key merged
  - Workaround for bootstrap timing issue
  - Proposal title in tx metadata fixed
  - Nix work

### **Development Update 32:**

**1/20/2023**

#### Governance App

Updates will be implemented for the launch of the DAO dashboard. Planned launch date is January 31st.

- enabled dynamic styling of individual DAO pages
- published terms of service & privacy policy
- mobile responsiveness updates
- Added eternal and flint support
- Various UI upgrades and bug fixes
- Separate proposal vs bounty functionality nearly complete
- Began researching forum options for submissions and bounties/proposals

#### Clarity Protocol

- Node synced
- Testnet agora built locally
- Debugging bootstrap function (wrong HTTP method)
- ctl-types lib compiles on CI
- Various fixes to ctl-bridge
- Treasury fee bug fixes
- DAO owned staking key simplifications
- One shot config NFT minting policy done

## **Development Update 33:**

**1/27/2023**

Crystal

Updates will be implemented for the launch of the DAO dashboard. Planned launch date is January 31st.

- Preparing for launch (bug fixes, refining UI, etc)
- Featured community proposal functionality
- Terms and conditions check added for first-time users
- DAO profiles finalized with custom UI if provided

Clarity Protocol

- moving sensitive and db logic to secure api routes
- offchain repo initialized, CI running
- Research into native argument applying
- Script export code gen draft ready
- building the t4/fix-bootstrap with agora as a submodule
- debugging erros after compiling web bundle
- ran frontend (about to test with shared deployment configs)

## **Development Update 34:**

**2/10/2023**

Crystal Platform Update:

- Added 7 new DAOs to the dashboard
- Added forum for proposals to increase engagement in your DAO's proposals
- Added vote opens date for proposals to allow greater flexibility and control when creating proposals
- Continued working on proposal vs bounty UI/UX
- Lots of great feedback gathered at the Clarity Ecosystem meeting

Clarity Protocol

- finishing agora-offchain related issues
- Custom Scrolls Integration
- Staking rewards withdraw workflow
- migrated the changes for wallet integration & agora

## **Development Update 35:**

**2/17/2023**

Crystal Updates:

- Restrict editing and deleting of proposals once voting has begun (in final test)
- Improve UI and responsiveness
- Continue working on refined proposal vs bounty functionality
- Initial tests of improved blockchain integration

Clarity Protocol

- Improved documentation for setting up on-chain dev environment
- Bug fixes in create an organization UI/UX
- Connecting Clarity front-end with on-chain contracts to create a DAO

## **Development Update 36:**

**2/24/2023**

Crystal Updates:

- Update packages for web app
- Update user transaction message to indicate the transaction is free
- Adjust wording of documentation links
- Add popup with link to docs if a user has an Eternl wallet with no voting power
- Scrolls storage rewrite to Postgres
- Finalize Scrolls integration (in testing)
- Add downloadable vote record file at conclusion of vote (in testing)

Clarity Protocol

- Submitting and saving transaction data that creates DAOs.
- Designed & implemented flow splitting up org creation and DAO smart contract deployment to give orgs time before launching their DAO to get organized
- Fixed create DAO ui/ux bugs
- Moved sensitive component operations to server side
- Initial DAO owned staking key integration tests merged



- Voting rewards workflows merged

## **Development Update 37:**

**3/03/2023**

- Vote record generation finalized and passed testing
- Updated voting power calculation for Cardashift
- Worked with Cardashift to host their first vote on Crystal
- Added feature to allow shuffling of submissions to be toggled on/off
- UI/UX improvements
- Work on custom Genius staking voting power calculation
- Adding integration tests for voting workflows
- Debugging and fixing issues along the way, pretty much finished now
- Will add on-chain and off-chain PRs
- Aside from that, some agora-offchain work also, PR reviews / interacting on new issue found
- DAO Contributor NFT workflows almost done
- Devops/deployment error fixing
- Moving Scrolls to stake addresses

## **Development Update 38:**

**3/10/2023**

General Development:

- Updating landing page messaging and design. Changes will be pushed soon.
- Begin testing new scrolls server with Genius admin team
- Admins can now limit users to voting for only one submission per proposal
- Worked with RatsDAO team to create a custom vote power calculation
- Fixed bug that caused submissions in active votes to be sorted by vote count
- Began building out web2 version of Crystal
- Authentication flow has been set up
- Initial Stripe integration has been set up
- Confirmed feature set for testnet launch.
- Continuous deployment for NPM package
- Work around CTL v5 bump
- DAO Contributor NFT workflows
- bumping the agora off-chain and adapting the fork (CTL V5)
- exposing stake related functions

## **Development Update 39:**

**03/20/2023**

Clarity

- DAO Contributor NFT workflows merged & tested
- Testing voting rewards
- Start work on Clarity effects execution (Extended Treasury Withdrawal & Config update)
- testing existing workflows with ctl5 version of our agora fork
- updating the fork again to drop the dependency on the agora-script-server

Crystal:

- Update domain addresses (now web3.crystal.vote)
- Provide Cardashift analytics on their most recent vote
- Transition Cardano support from Blockfrost to Scrolls
- Change web app support from public address to stake key
- Create plan for private DAO pages
- Allow admins to toggle live vote count
- MVP of Web2 version

### **Development Update 40:**

**03/31/2023**

Clarity:

update config effect, adding workflow and test

Working on treasury withdrawal effect, hacking around CTL limitations

Improving UI/UX flows for admin users to make managing your community easier

Giving users more feedback & supplemental information in forms to help identify & fix potential problems

Making Clarity UI app use the new unified clarity-offchain codebase.

Porting the development dashboard to use the new API

Extending the API with proposal related functions

Crystal:

Integrate Stripe with platform

Create demo pages

Work on implementing UI improvements

We are inching closer and closer to testnet launch of the Clarity Protocol!! Stay tuned.

### **Development Update 41:**

**06/23/2023**

### General Development Update

- Added token dropdown on treasury withdrawal proposal
- Default proposal descriptions
- Various bug fixes
- Added stepper while DAO is being created so users can learn about the different transactions that go into creating their DAO
- Built mobile responsive version
- Identifying users by stake key to limit multi-address complications
- General style/UI improvements
- Built & integrated external documentation using gitbook.

### On-chain Updates

- FE support for update governance parameter proposal
- Fixing treasury withdrawal, confirmed it works on testnet
- Fixing timing edge case
- Testing governor mutation effect
- Expanding chain indexer for voting history