Abstract

Tortuga Labs (https://piratelife.casino / https://dvpn.casino) is a blockchain research laboratory focusing on leveraging smart contracts to ensure games are trustless and provably fair at an individual transaction basis. Each game in the white label casinos linked above is its own blockchain smart contract (explorer.turtlenetwork.eu/address/3Jd3hFS5j9UXnq8giP4rC17LvZoiErb5CvF/script).

The PRNG in each game is based on an unbiased on-chain solution for generating random numbers (www.academia.edu/49224905/Generating_Random_Numbers_using_Blockchain_Technology_for_Gaming).

We wish to bring to SCRT a modified open source version of the PRNG implementation in a multi player poker format.

Project Description

Tortuga Labs is seeking to build a SCRT based platform for shielded gaming. Much of the development will have open-source contributions, including the PRNG implementation which can prove useful for NFT projects, gaming, or finance.

The community will be able to hook into the API to track round outcomes as well as payout sums.

Tortuga Labs have been operating mostly on the turtle.network blockchain up to this point, one of the downsides is the smart contract language is Non Turing Complete. These limitations result in problems facilitating multiplayer games, WASM on SCRT is Turing Complete and many of the games would benefit from the privacy features of the blockchain.

Team and Experience

- Raphael - CEO
- Draeth - Lead Advisor
- Nigel - Game Programmer/Developer
- Dream Tim - Marketing Advisor
- Art - Game Management
- Krystal - Marketing
- Cam - Outreach
- Robbin - Game Programmer/Developer
- Heather - 3d Animation/Artist
- Marius - Web Development
- Kaks - Community Management
- Rose - Environmental Artist/3d Animator
- Rodrigo - 3d Animator
- Steven - Game Tester
- Paul - Video Production
- Jackie - Smart Contract Development
- Brian - Game Developer
- Brandon - Game Developer

Deliverables & Milestones

1. Tortuga Labs will release an open-source PRNG module in WASM.
2. Open-source Multiplayer Poker Smart Contract
3. Launched UI/UX

Ecosystem Value & Success Metrics

Every interaction on the platform generates a transaction which results in SCRT paid to the network validators. Each contract which involves rounds also has a game master which processes the rounds incurring fees to the network whether

there are active players or not.

To track the success of the games and the gas they have burned, we will employ an open API to the community.

- Total transactions processed and spent gas
- Total administrative transactions (process bets / round start / round end)

Budget

Tortuga Lab's is requesting for $88,000 to develop and open-source a Multi-Player Poker game on SCRT. This includes open-source code bases for:

- Front-end
- API Back-end
- Smart Contracts

The breakdown for the costs would be:

- $50,000 – Development
- $10,000 – Academic Paper
- $10,000 – Casino Collateral
- $10,000 - Marketing
- $ 8,000 – Volatility buffer

Total: 14864 SCRT

About Tortuga Labs

Tortuga Lab's mission is to build innovative gaming technologies, products and services to enhance on-chain use cases and push blockchain towards widespread adoption. We believe that gaming is one of the main keys to on-boarding new users and driving transactions on chain and utilize cutting edge technologies that we develop to enhance user experience and engagement, as well as provide ways to show them that the systems they are playing on are provably fair. We are able to do this by creating new technologies on the chain we are developing on and creating products and services that are attractive and fun for users, providing an engaging environment geared toward everyone. We also implement our own custom commit and reveal type PRNG to ensure fair randomization without the ability for users to game the system. We welcome any and all feedback on this proposal, as we are looking forward to working with the Secret Community to ramp up on-chain usage and adoption.