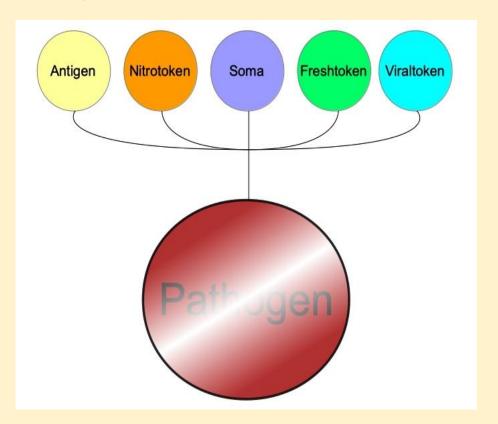


## What is Pathogen?

- Pathogen (PATH) is an ERC20 token
- Supplies liquidity to various token pools
- Stakes into other tokens
- Reaps rewards accrued per transaction/per pool



# How Pathogen Works?

The Pathogen Trust has 1,000,000 tokens staked per liquidity pool of the following tokens:

- Antigen (ANTI)
- Nitrotoken (NITRO)
- Soma (SOMA)
- Freshtoken (FRESH)
- Viraltoken (VIRAL)

The Pathogen token, PATH, creates exposure to the Trust's stakes, which generates a daily staking reward, reaping the rewards accrued per transaction per liquidity pool.

Every transaction that takes place by all token owners of it's respected staked token gives a reward to the liquidity provider(PATH) of 0.02% per transaction, maxing at 1% total, which is rewarded after a 24 hour period, which the PATH holder's reward is based on amount owned in the Trust's total stake.

# **Technology Stack**

Language: Solidity

• IDE: Remix

Developer Environment: Ganache







## **STAKING: What is it?**

- Holding funds in a crypto wallet to maintain the operations of a proof-of-stake (PoS)-based blockchain system.
- Simply: Incentivizing a token holder in supplying liquidity to a pool in return for token rewards.
- A <u>liquidity pool</u> is a collection of funds locked into a smart contract.
- Encourages holding the token, as opposed to selling or trading.
- Token holding increases its valuation.



- Initial Token Supply = 10,000,000 each of PATH, ANTI, NITRO, SOMA, FRSH, VIRAL
- Price of each token = \$1.00
- Total Value Locked for each = \$10,000,000
- Pathogen Trust Total Value Staked =1,000,000 per liquidity pool
- PATH's token exposure is based on the number of liquidity pools the Trust is staking. Ex: 5 LPs, PATH's exposure is 20% per pool.

## **Earning Rewards**



Pathogen Trust: 1M \* \$1= \$1M worth tokens staked into each pool respective to the pools' token. Example: \$1,000,000(1M tokens) ANTI staked by Trust in ANTI liquidity pool. Total tokens staked within it's token liquidity pool = \$1M\*5 pools = \$5M Example: PATH stakeholder owns 100,000 tokens. 100,000 tokens of it's 1,000,000 total token circulation is 10%.

100,000 tokens' exposure to the 5,000,000 total Trust stake is 5% of the daily generated reward to be distributed to token owner in a 24 hour period.

# **Deploying Procedure**

#### Legend:

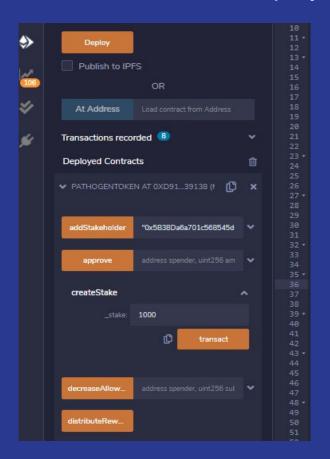
#### Execute functions as

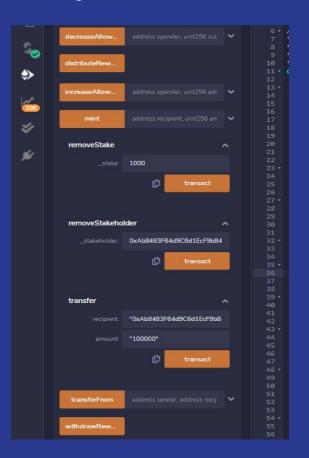
- **O**: Owner/Contract Deployer
- **U**: User/Non-Owner/Stakeholders

- Deploy Contract(O)
- Transfer(0)(Stakeholders(s) address(es), token amount to transfer to stakeholder(s))
- addStakeholder(O)(Accepts and adds stakeholder to contract)
- 4. createStake(U)(Amount of tokens to stake by stakeholder)
- totalStakes(O/U)(Checks how many coins are staked to contract)
- 6. calculateReward(O)(Generates rewards to distribute)
- 7. totalRewards(Calculates aggregated rewards)
- 8. distributeReward(O)(Distributes rewards to stakeholders)
- withdrawReward(U)(Withdraws reward to stakeholder's wallet)
- 10. removeStake(U)(Amount of tokens you want to remove)
- 11. balanceOf(O/U)(Check balance of wallet)

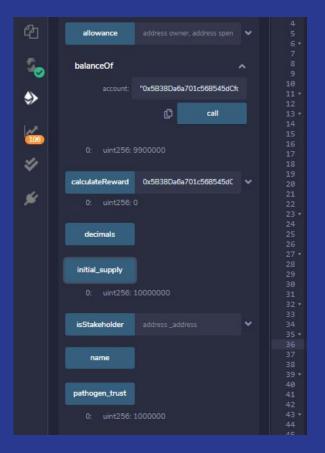
(Make sure environment is setup. Ganache/Truffle, Metamask, Remix, etc)

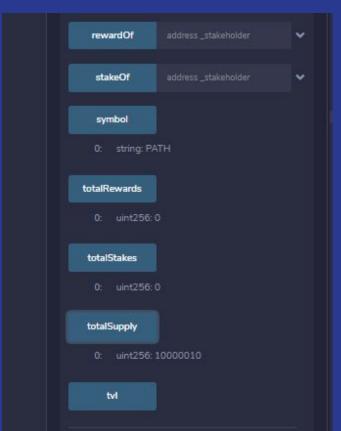
### **Deploying Pathogen**





## **Deploying Pathogen**





# Conclusion/Results

- The sentiment behind this token was to give the token holder the ability to part take in liquidity pool staking and reap the rewards without the numerous gas taxes that come along with the process.
- With Ethereum's success and it's current Layer 1 structure, transaction fees will also rise as it will take a larger effort by the node validators.
  Layer 2 applications have arrived and Ethereum 2.0 hopes to bring a more cost efficient solution.

# Future Additions

- Add liquidity pool pairing with Ethereum or possibly other stable coins for staking
- Consensus voting forums to add/remove tokens to stake into
- Create a governance token, which can be given to stakeholders based on the amount they hold, on voting proposals.
- Crosschain interoperability

