

# TRUSTED EXECUTION & ATTESTATION

Elevating Decentralized Trusted Computing to a **T** Since 2019





### Bringing the decentralized cloud to Web3

The TEA Project offers a decentralized compute layer that goes beyond smart contracts to provide a fully decentralized compute network infrastructure.



#### The Problem



#### **Smart Contract Blockchains**

- Blockchains are decentralized but slow.
- The slow consensus required by their decentralized nodes prevents dApps from running at cloud computing speeds.



Blockchains like Ethereum gave us smart contractbased dApps that still rely on centralized hosting. TEA allows **fully decentralized general purpose computing** to run on top of the blockchain.





- DApps often have to rely on centralized servers for full-speed computation.
- Centralized private data storage leads to data leaks and privacy abuses.



IPFS gave us decentralized storage but is lacking a decentralized compute layer to go with it.



Projects like Helium gave us decentralized data transmission but are missing a **compute layer** to directly run dApps on network data.

# The Solution: TEA Project's Decentralized Compute Layer



# TEA Project's Full-Speed Compute Layer

- TEA's compute layer maintains its own state separate from Ethereum's state machine.
- Applications that run on TEA's decentralized compute layer nodes are full-stack rich applications, not just smart contracts.
- Rich apps run decentralized and at full speed as the compute layer doesn't rely on blocks for consensus.
- App code and user data are executed only within hardware protected enclaves protecting user privacy.
- Anyone with the dApp's CID can use any TEA decentralized node to run the dApp, making these apps unstoppable once released on the TEA Project network.



#### TEA Doesn't "Block"



TEA's state is continuously updated using time as root of trust.

Traditional blockchains have to regularly stop and take stock of where all nodes are relative to the canonical ledger. Smart contract based blockchains will always have scalability issues because of their reliance on blocks.

# TEA won't block any app

The TEA Project isn't able to block any app. TEA Project's TApps are requested by end-users who can use any available node to run the TApp. The TApp's CID is all they need, and there's no one, including the TEA Project, that can block them from running the TApp.



We refer to TApps as unstoppable because no one can block them.

# The TEA Project in Threes

#### **3 Roots of Trust**

The TEA Project has 3 roots of trust:

blockchain (the layer-1 we run on top of), time (as measured by GPS), and hardware (embedded TPM chips on our mining nodes). The trust data for our layer-2 nodes are stored on the blockchain, allowing them to skip BFT-consensus and run as fast as the cloud.

A separate state machine is kept on our layer-2 with no blocks and no TPS limits as transactions are ordered by time reported by the GPS modules.

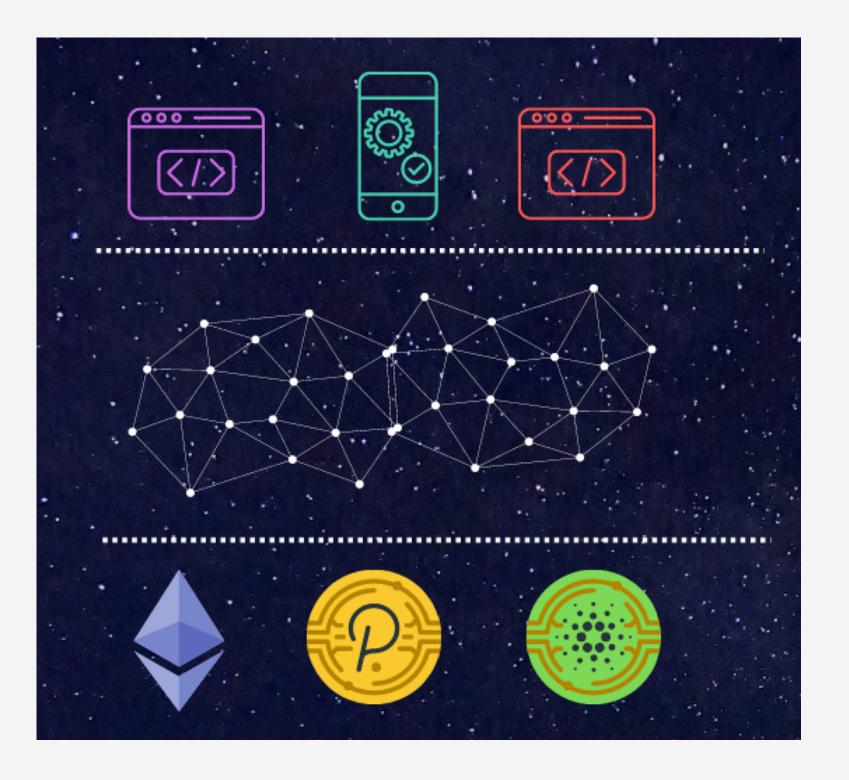


# TEA has all 3 tiers decentralized

The TEA Project features the same three tiers as cloud computing (front-end, server, and database) but runs all three tiers decentralized. Current smart contract dApps are really a hybrid of decentralized and centralized tiers due to limitations with smart contracts and blockchain consensus.

TEA Project is pioneering a multi chain future where it acts as the middle compute layer running on top of multiple layer-1 blockchains.

Developers write their dApps **once** and gain access to **multiple** layer-1 blockchains.



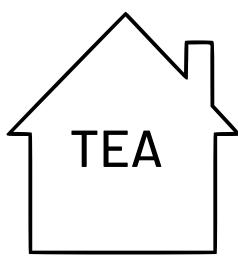
### TEA Example Use Case

TEA Project creates trustable decentralized edge nodes in the home, protecting private data

#### **Accessibility**

TEA Project turns homes into secure Web3 gateways

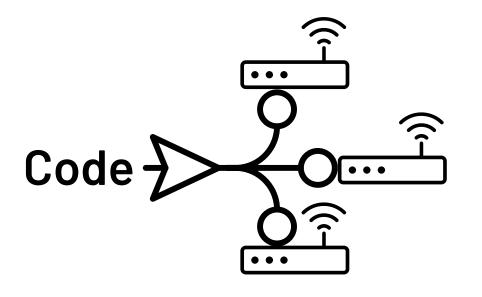
- With the help of our hardware partners, TEA will launch compact household routers that provide a secure entry point for accessing Web3 resources.
- Code is run on this hardware inside the home, different than the current model of users sending private data outside of their control to centralized hosting.



#### **Innovation**

We'll integrate TEA modules in decentralized edge nodes, opening up a new distributed computing infrastructure

- Data can remain on distributed devices and the code is sent to the data.
- The data and code meet together and are computed not at the data center but where the data is stored.



# TEA Project's Two Tokens



#### TEA

- Utility token used as gas.
- Payment token for using TApps.
- 100 million total supply.



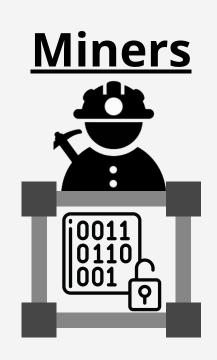
#### Camellia (CML)

- Camellia seeds are unique NFTs that are minted according to miner demand. A TEA mining node can only be activated by associating a Camellia NFT with it.
- Miners buy new Camellia seeds through open bidding.
- They each have varying life spans, and productivity determined by an algorithm.

#### The TEA Platform's Token Incentives

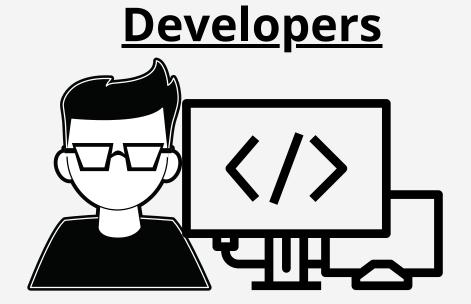
TEA doesn't use the web2 / centralized server paradigm of monetizing user data, and so we need a different economic model to reward ecosystem participants.

The end-user pays both the miners who provide the hosting nodes and the developers who write the apps.



The miners provide the hosting nodes and are compensated with gas payments.





Developers are compensated whenever their apps are used.

# Milestones

2021 Q2	<ul> <li>Second milestone ongoing in 2021</li> <li>Gluon wallet</li> <li>Web3 Foundation Open Grant</li> <li>Migrating TEA runtime to Amazon Nitro</li> <li>Seed round secured including investment from Hashkey</li> <li>Preview 1 version launch</li> <li>Begin Go2Market strategy starting with miner economy</li> <li>Testnet starts</li> </ul>		2021 Q3	
2021 04	<ul> <li>Public mining in preview mode</li> <li>Rich dApps running on network</li> </ul>	<ul> <li>Testnet mining up to epoch 9</li> <li>TEA Party dApp released</li> </ul>	2022 Q1	
2022 Q2	<ul> <li>Majority of business logic migrated from layer-1 to layer-2</li> <li>TEA framework dev guide released</li> <li>Post-seed round secured</li> </ul>	• Layer-1 EVM smart contract compatibility		
2022 04	<ul> <li>Last testing epochs before mainnet</li> <li>Migrate to AWS Nitro for all nodes</li> </ul>	Mainnet starts	2023 Q1-Q2	

#### **FUNDING ROUNDS**

Seed Round: \$1 Million Investment with \$10 Million Valuation

Post-Seed Round: \$1.4 Million Investment with \$50 Million Valuation

Completed May, 2021, led by



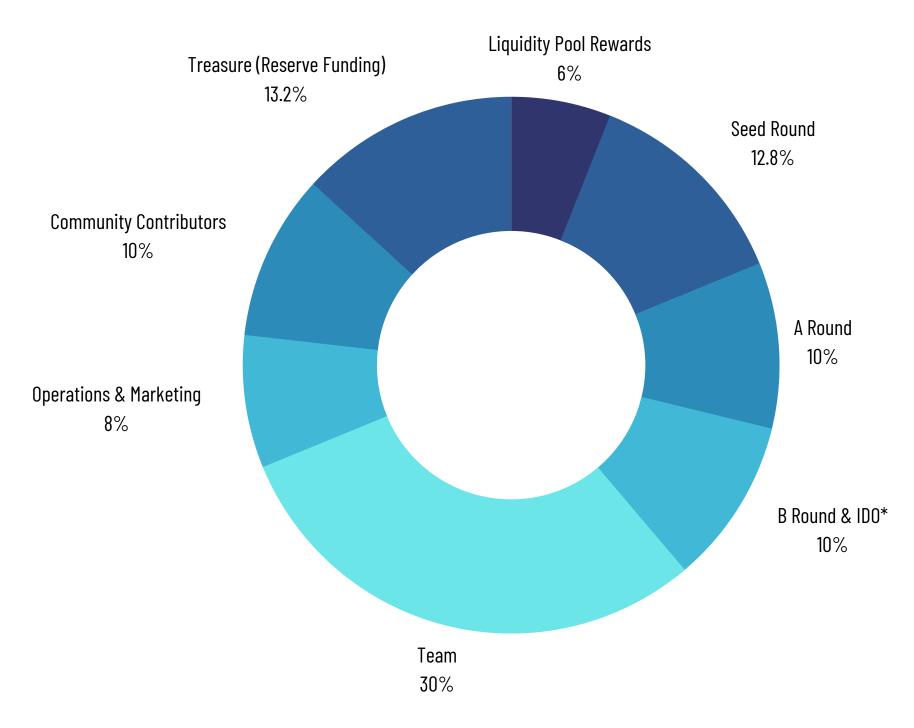
Completed April, 2022, led by



#### TEA TOKEN ALLOCATION

Vesting Schedules	Immediate Unlock	Vesting
Seed, A, B Rounds	10.00%	5% per month for 18 months
Team and Community	0.00%	2 month lockup 5% per month for 20 months





<sup>\*</sup>Seed round includes post-seed round

<sup>\*\*</sup>Any investment rounds and other allocations not completed will go to the treasury

<sup>\*\*\*</sup>The treasury includes the early mining reward fund which is used to pay the miners remote attestation rewards during the early stages after the mainnet launch

<sup>\*\*\*\*</sup> If B Round / IDO are skipped, this amount will go to a subsidy pool to incentivize miners in the early stages after mainnet launches

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