TUPELO

Decentralizing Blockchains

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What is Tupelo?

A general purpose proof of stake distributed ledger

What is Tupelo?

Modeled for Ownership

What is Tupelo?

Ideal for discrete *assets*

What is Tupelo?

Like your house

What is Tupelo?

Or your car

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Makes it easy to transfer objects

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And track their provenance over time

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How?

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ChainTrees

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ChainTrees

- An isolated, self-contained data structure

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- Represents every asset known to Tupelo

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- Represents every asset known to Tupelo
- Maintains the current state of the data
  - Like a filesystem
- Maintains the transaction history
  - Like a blockchain

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ChainTrees

- Allows data portability

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  - From one validator group to another

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  - From one validator group to another
  - Or from a testnet to production

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ChainTrees

- Allows data portability
  - From one validator group to another
  - Or from a testnet to production
  - Or a consortium network to an open one

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- Clients control where ChainTrees are stored

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  - As long as they follow the IPLD data model

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  - As long as they follow the IPLD data model
  - Like public IPFS
  - Or a private data store
  - Or a hybrid system

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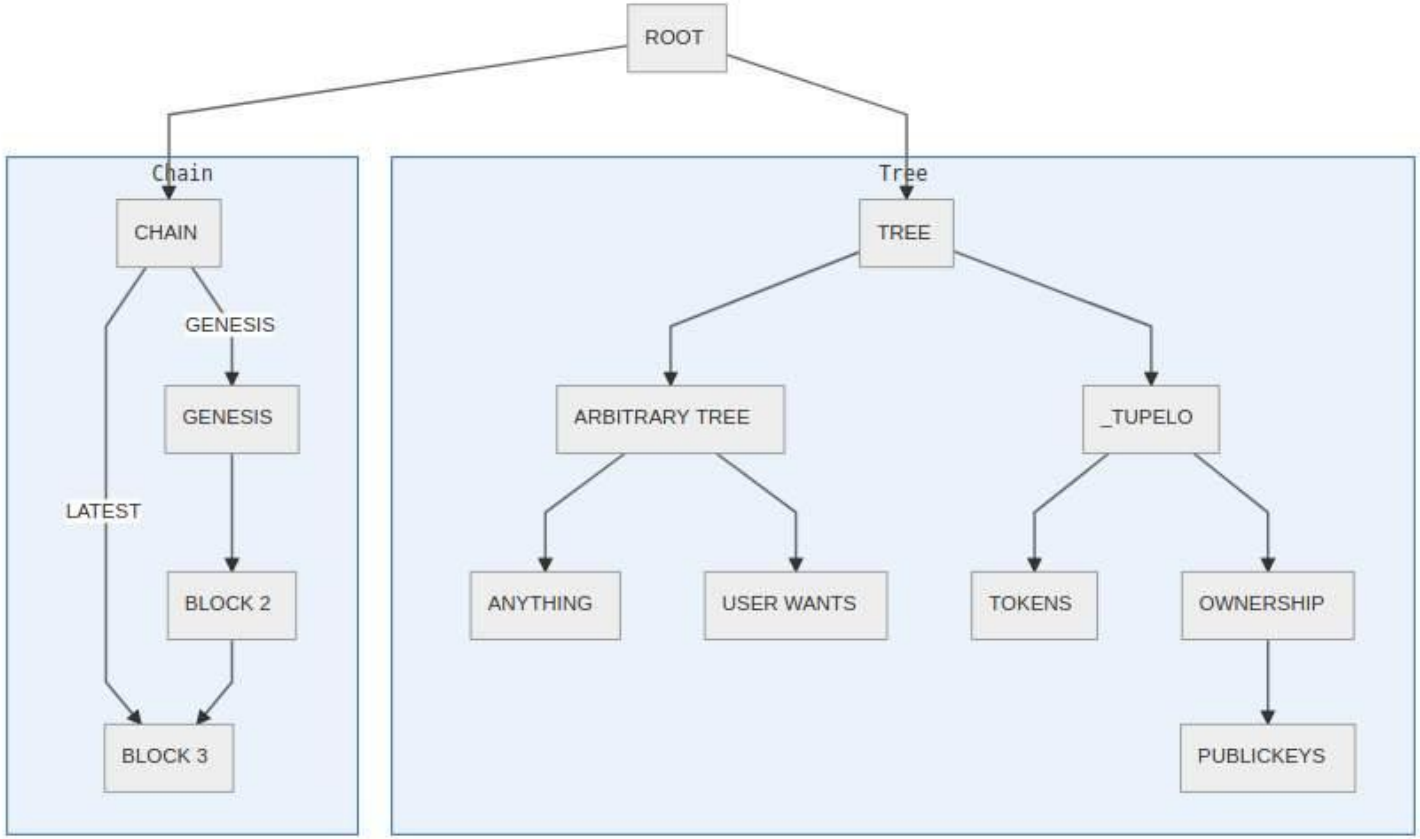

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ChainTree Transactions

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- Provide functionality real world application developers need

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ChainTree Transactions

- Limited for simplicity
- Provide functionality real world application developers need
  - Without the vulnerabilites of smart contracts

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ChainTree Transactions

- SET_OWNERSHIP

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ChainTree Transactions

- SET_OWNERSHIP
- SET_DATA

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ChainTree Transactions

- SET_OWNERSHIP
- SET_DATA
- ESTABLISH_TOKEN

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ChainTree Transactions

- SET_OWNERSHIP
- SET_DATA
- ESTABLISH_TOKEN
- MINT_TOKEN

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ChainTree Transactions

- SET_OWNERSHIP
- SET_DATA
- ESTABLISH_TOKEN
- MINT_TOKEN
- SEND_TOKEN

TUPELO

ChainTree Transactions

- SET_OWNERSHIP
- SET_DATA
- ESTABLISH_TOKEN
- MINT_TOKEN
- SEND_TOKEN
- RECEIVE_TOKEN

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ChainTrees

- Fit neatly within the IPFS ecosystem

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ChainTrees

- Fit neatly within the IPFS ecosystem
- Integrate well with projects like OrbitDB

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Validator Nodes

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- Only maintain the hash of the last validated chaintree state

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- Only perform minimal computation for validation

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Validator Nodes

- Only maintain the hash of the last validated chaintree state
- Only perform minimal computation for validation
- Only need to gossip minimal information to come to consensus

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Latest Benchmarks

- 100 Node global network
- 200 Tx/s
- 296 mean finality

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WASM SDK

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- Build on Tupelo with JavaScript/TypeScript/ClojureScript...

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- Connect to the network directly from Node.js or (desktop) browser

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  - No need to connect through a “full node” or RPC server

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WASM SDK

- Build on Tupelo with JavaScript/TypeScript/ClojureScript…
- Connect to the network directly from Node.js or (desktop) browser
  - No need to connect through a “full node” or RPC server
  - Build truly decentralized apps

Get In Touch

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