A Scalable Confidential Cryptocurrency

A Mimblewimble Implementation

Crypto usage in business?

What the real world needs

- Permissionless Digital Cash
- Sovereign Digital Cash
- Stable coins
- Tokenized Securities
- Debt, financial derivatives
- Supply chain management
- Moving Personal Data

All Require

The Blockchain Trilemma

Pick Any One

Why and What

We want a world where crypto coexists with legacy financial systems and makes things cheaper, faster and better

We enable decentralized transfer of diverse kinds of value that is confidential, scalable and optionally compliant

What is Beam

A new blockchain based on Mimblewimble* protocol

- PoW consensus
- Decentralized
- Permissionless
- Deflationary
- Implemented from scratch in C++
- Development started in March 2018
- Launched on Jan 3 2019

* Mimblewimble protocol was published on July 19, 2016 by an Thomas Elvis Jedusor

Mimble what?

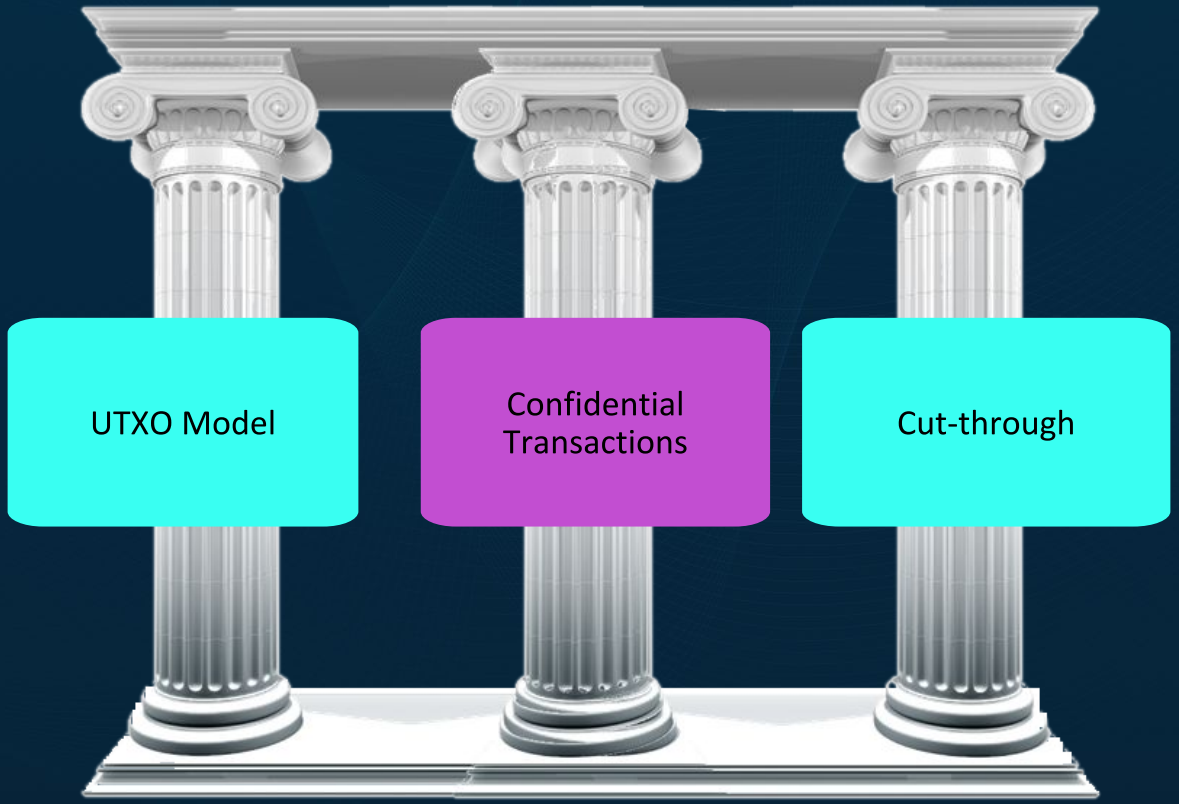
Mimblewimble.

An elegant protocol offering full privacy without sacrificing scalability.

Developed by an anonymous author using

Tom Elvis Jedusor (French for Voldemort) handle

How Mimblewimble works



UXTO Model

Each user holds keys to their own Safe Deposit Boxes

UTXO Model

- Well, there aren't real
- Meet Pedersen Comm

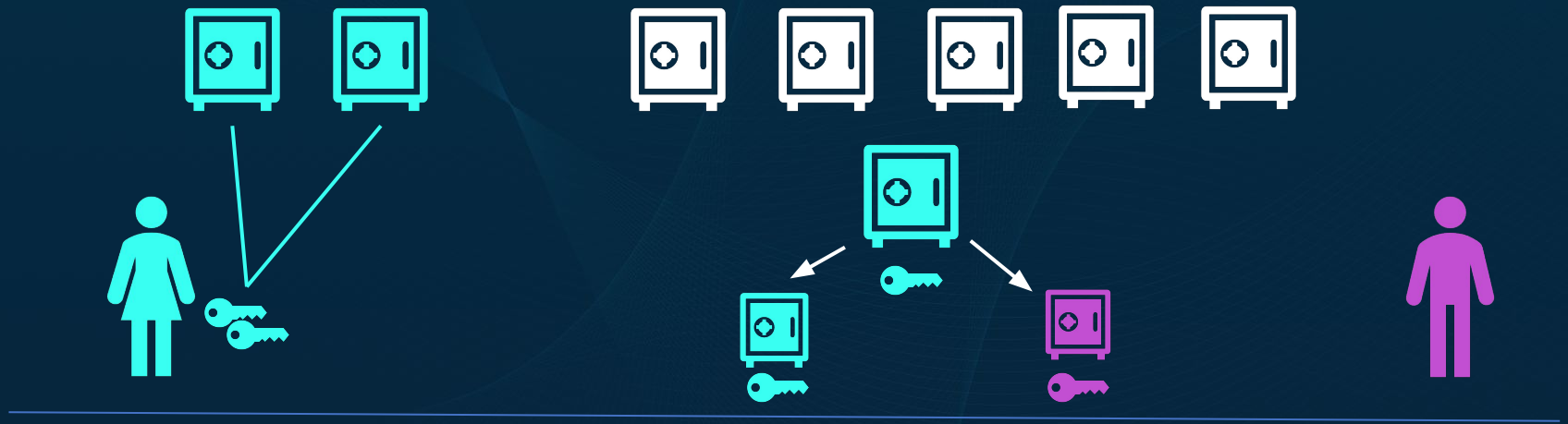
Blinding Factor

P =

Confidential Transactions

Confidential Transactions

Confidential Transactions

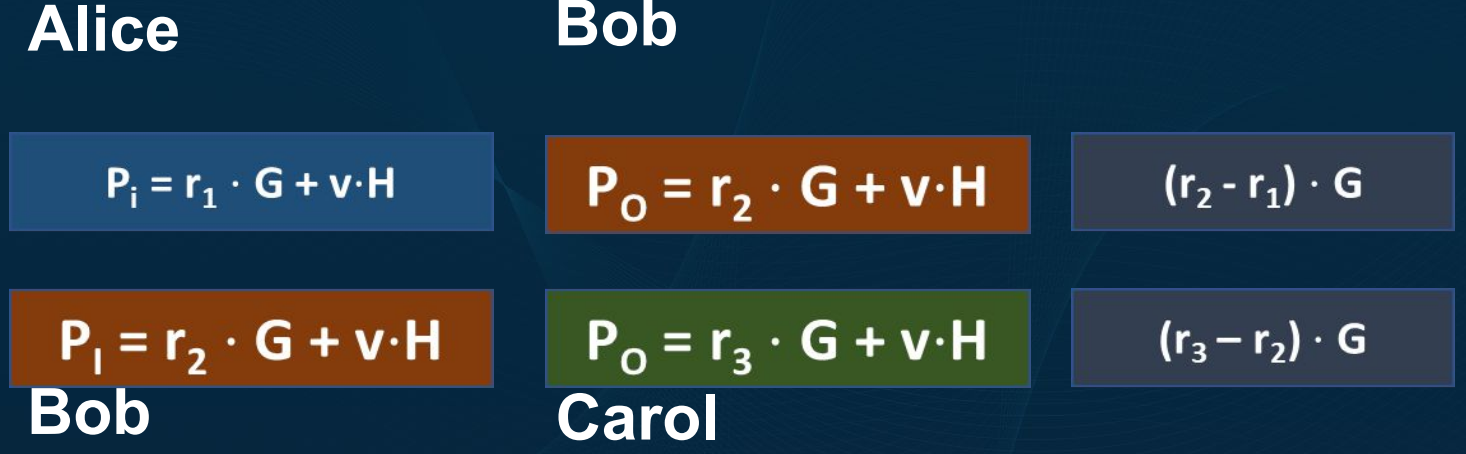


Confidential Transactions

- ✔ Is the sum Zero?
- ✔ Are the values positive?

Confidential Transactions

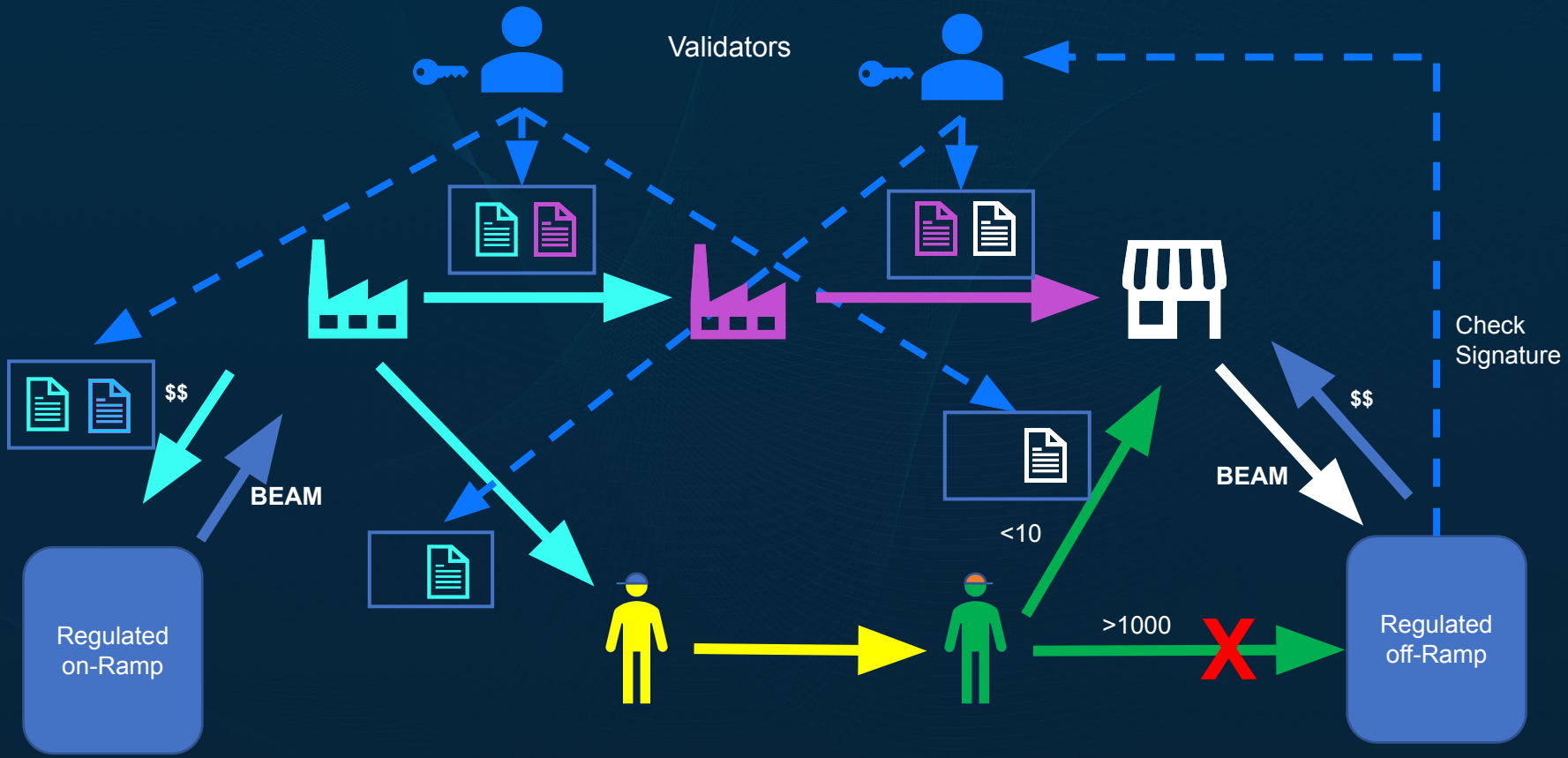
Transaction Cut-through



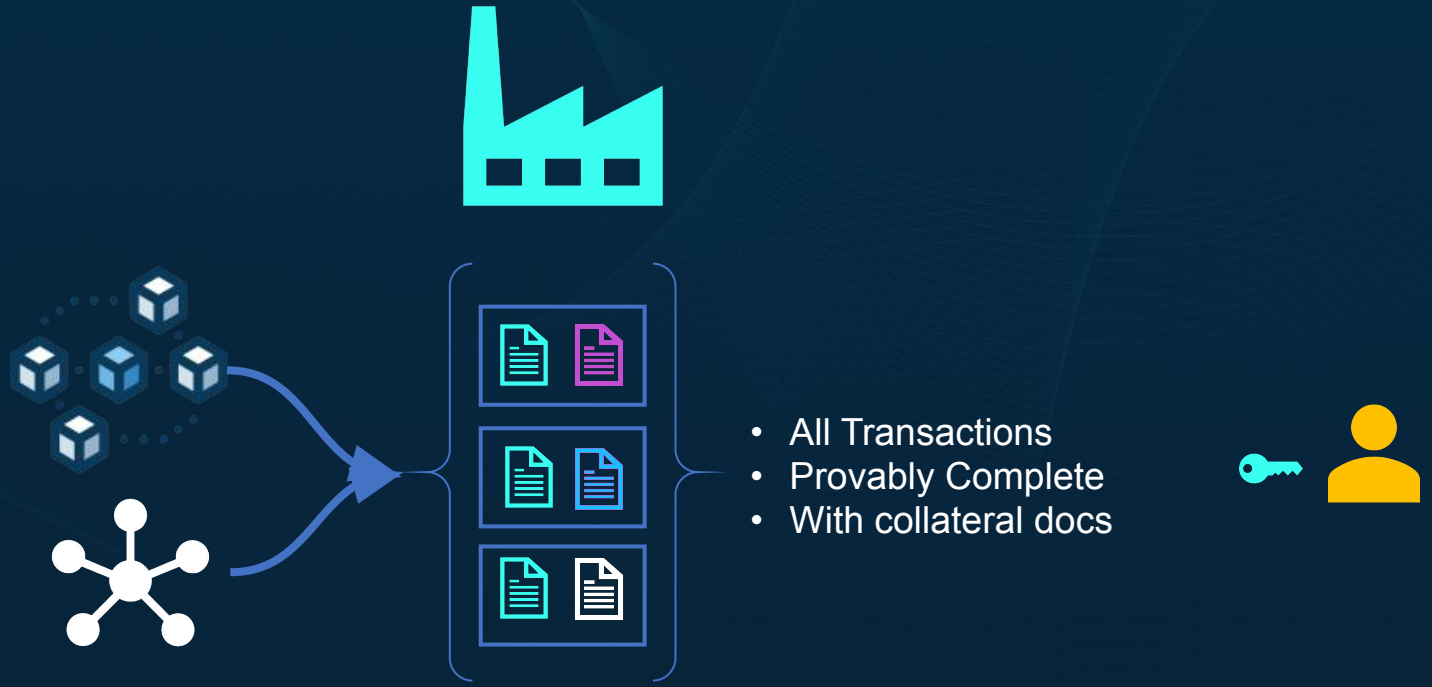
- Same repeated for all the blockchain
- Intermediary states removed –keep just current state of UTXOs
- Result – 3-10 times smaller than Bitcoin

Building on top of Mimblewimble

Beam Digital Value Transfer Ecosystem – B2B, Compliant

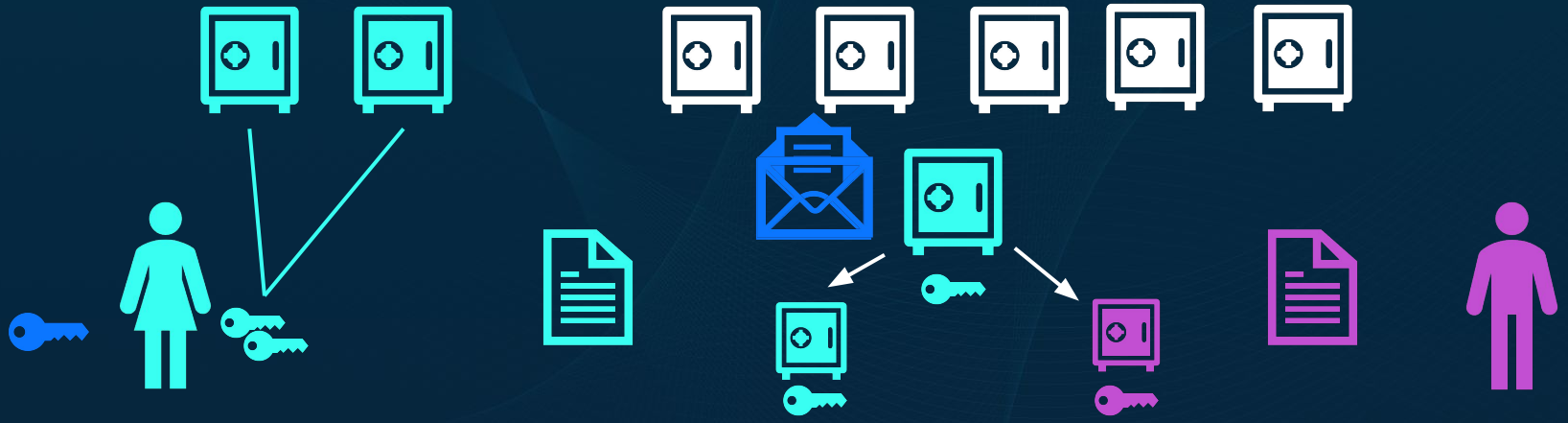


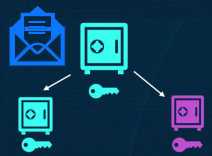
Beam Digital Value Transfer Ecosystem – B2B, Compliant



- All Transactions
- Provably Complete
- With collateral docs

Opt-In Auditability



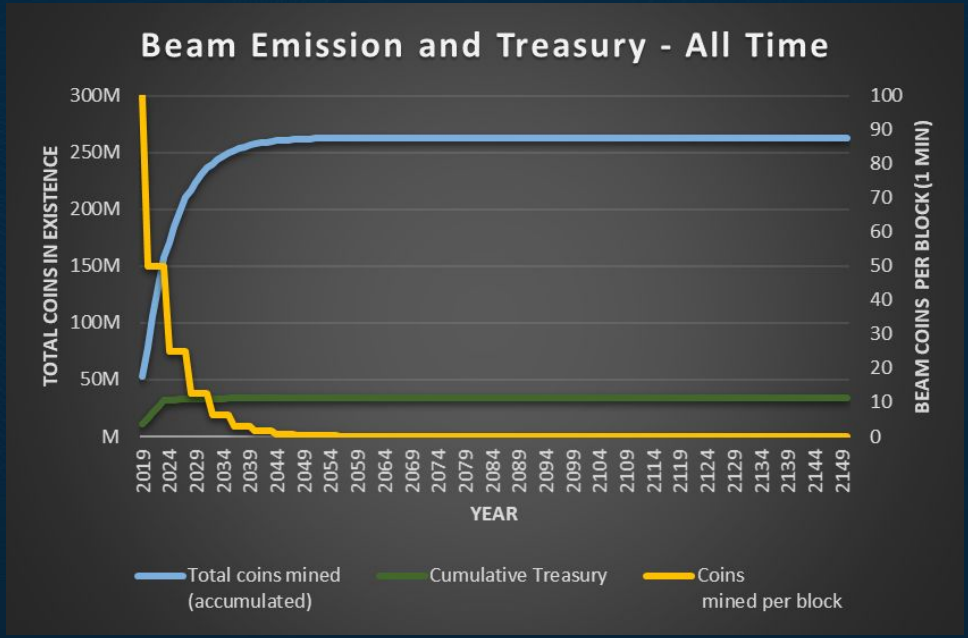


Confidential Assets

- Issue tokens on Beam blockchain and trade in a private way
- Applications: stablecoins, corporate debt, company shares, local currencies, crypto kitties, etc.

Coin Economics

- Capped Supply of 262, 800,000 Beam or 26,279,999,976,873,600 Groth
- First 5 years – 20% coins is emitted to Treasury
- Treasury goes to Investors, Core Team and Foundation
- Miner rewards:
  - 80 Beam in Y1
  - 40 Beam in Y2-5
  - 25 following 4 years
  - Halving until year 133

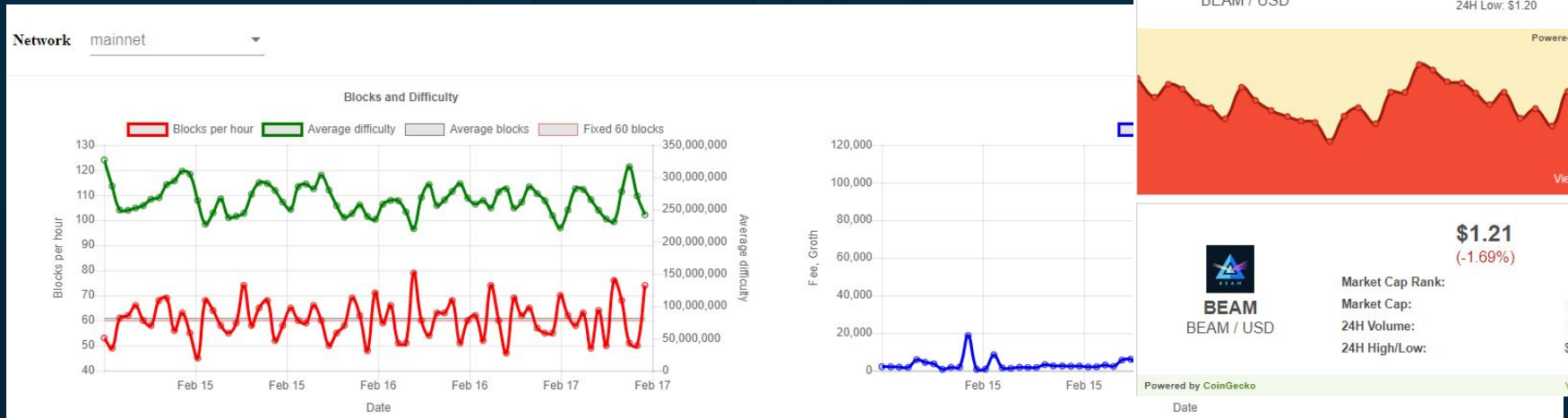


Beam Governance

- Currently run by Beam Development Ltd., funded by VCs
- 20% Treasury in first 5 years
- In H1 2019 a Foundation will be established
  - Unconditional funding from Beam blockchain
  - Reputable Board Members
  - NOT controlled by Beam company nor by Beam team
- Goal: pass control to Community in the course of 5 years

Our Investors

Current Status



Blockchain height: **65064**	Latest block: **Feb 17, 2019, 11:34:14 PM**	Latest block difficulty: **273,369,072**	Coins in circulation (mined): **5,205,120 Beams**	Coins in circulation (treasury): **876,000 Beams**
Total coins in circulation: **6,081,120 Beams**	Next treasury emission block height: **87,600**	Next treasury emission coin amount: **876,000 Beams**	Total emission: **262,800,000 Beams**	Hashrate: **4,556,151.2 Sol/s**

2019 Roadmap

Beam Core

Jan 3, 2019
Launch
- Mainnet goes live
- Mining Infrastructure
- Desktop Wallet
- Blockchain Explorer

Jan-Feb 2019
Agile Atom
- Payment and Exchange API
- Mining Pool API
- Beam Lightning Position Paper

Mar 2019
Bright Boson
- Beam<>BTC Atomic Swap
- Hardware Wallet Integration
- Android Wallet
- Lightning POC
- Payment platforms integration

Jun 2019
Clear Cathode
- PoW Algo Change
- iOS & Web Wallets
- Multisig Support
- Bulletin Board for Atomic Swaps
- Lightning Alpha

Sept 2019
Double Doppler
- Research alternative Consensus
- Porting to Rust
- Enhanced Wallet Security
- Lightning Beta

Dec 2019
Eager Electron
- PoW Algo Change
- I2P/Tor Integration
- BLS implementation
- GhostDAG POC
- Lightning Release

Beam Compliance

- Identify Design Partners
- Build Use cases

- Define scope of first release
- Select target regulations and build initial rollout plan

- Compliant Wallet POC
- Pre-alpha customers

- Compliant Wallet Alpha
- Auditor Interface Alpha
- Approaching regulators

- Compliant Wallet Alpha 2
- Auditor Interface Alpha 2
- Initial customer trials

Thank you!

https://www.beam.mw

https://t.me/BeamPrivacy

https://medium.com/beam-mw