

Engineering

Organisation + Roles

casper

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December '23

Internal
teams

External
relationships

Internal

Core Protocol

R&D

DeFi

Integrations

SRE/DevOps

Advocacy

Core Protocol

- **Ed Hastings**
 - Major centre of gravity change
 - Attended ACTUS DC
 - Synced with R&D team
- **Domino effect**
 - Engineer migration
 - A List = 5 ... B List = 4
 - PREPARATION not solicitation !
- **Roadmap**
 - If 1.5 then clear 1.6, 1.7, 2.0, 2.1, 2.2, 2.3
 - 2.3 = design space optimised
 - Crypto-economics needs a lot of work
 - DeFi supports needs focus + dog-fooding
 - ZK proof verification optimisation is essential

R&D

- **Team composition**
 - Head + Assistant
 - Applied Cryptographer -> awaiting hiring
 - 5 engineers
 - 1 intern
- **Focus H1 2024**
 - L1 light client
 - L1 node FFI extensions
 - L2 Rollup ... Kairos
 - ZK-WASM integration discovery
 - ACTUS ZK Gateway

DeFi

- **DeFi Integration Support**
 - Build up L1 primitives from ground up
 - Algo Stable | LSD | AMM | Perps ...etc
 - Series of mini projects
- **Advanced end-to-end prototypes**
 - L1 stress test
 - L2 integration feasibility
 - Rich content
 - Advocacy group
 - Developer portal

Integrations

- **Eco-System Growth Support**
 - E.G. Nes-Tech
 - Inevitable technical support requirement
 - Proposal assessments
- **Can be random time sink**
 - Smart contract learning friction
 - SDK friction -> has improved
 - Caused issues at Labs
- **4 person team**
 - 1 lead engineer
 - 3 support engineers

Advocacy

- **Advocates = engineers**
 - Need deep platform knowledge
 - Not just smart contracts
 - Not just documentation
- **Showcase DApps**
 - 4/5 examples
 - Defi | Supply Chain | Notarisation ... etc
 - Allows advocates to do engineering
 - Identify pain points & best practise
 - Rich content for developer portal
- **Events**
 - Themed Hackathons -> Employment

SRE/DevOps

- **Cross cutting**
 - All engineering groups require support
 - DEV, TEST, PROD
- **Core Protocol Testing**
 - Spinning up 200 node networks is expensive
 - L2 infra -> increase complexity and cost
- **R&D Testing**
 - Spinning up ZK prover clusters is expensive
 - Specialist DevOps skillset
- **Other**
 - Small footprint ATM -> is going to change
 - Initial team size: 3 person

External

Partners

- **External solution partners**
 - Software houses
 - Professional teams
 - Independent devs
- **Categorisation Framework**
 - Tier 1, 2, 3
 - Sub-Categories:
 - Capabilities
 - Track record ... e.g. by TVL
 - Cross organisational fit

Tier 1

core protocol | r&d | auditor

Tier 2

indexer | sdk | wallet

Tier 3

dapp | explorer | other

Tier 1

- **Core Protocol**
 - Predominantly software houses
 - E.G. Casper Labs
 - E.G. Teonite
- **R&D**
 - Ad-Hoc entities
 - E.G. Lita Foundation
 - E.G. Vlinder
- **Auditors**
 - E.G. Halbourn
 - E.G. Independents

Tier 2

- **Software Development Kits**
 - C#, C++, Javascript, Go, Python, Rust
 - Companies, small teams, individuals
- **Validators**
 - Types: professional | enthusiast
- **Wallets**
 - Types: hardware | software | mpc
 - Companies, small teams
- **Chain Auditing & Indexation**
 - E.G. MAKE -> typescript + postgresql -> api
 - E.G. StormEye -> k8s + kafka + java -> api
- **Explorers**
 - E.G. cspr.live | scansper

Tier 3

- **Media Partners**
 - Internal | Shark Media
 - Channels -> TG | X | LinkedIn ... etc
- **Developer Portal**
 - Internal + Casper Labs
 - Multi-media documentation types:
 - Formal
 - Narrative

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