Summary:

Proposal for the deployment of Aave V3 on Scroll testnet.

UPDATE

Snapshot: VOTE HERE

Start date

Feb 21st, 2023, 11:00 AM UTC

End date

Feb 24th, 2023, 11:00 AM UTC

Proposal TL;DR:

Aave has been trailblazing DeFi since inception and continues to embrace new frontiers and innovation to this day. The protocol has become a dominant player in DeFi lending across networks - be it alt L1s or L2s. Scroll wants to further support the mission of a multi-chain Aave and propose to the Aave community to authorize the deployment of Aave V3 on Scroll testnet.

Zk rollups are widely considered to be the holy grail of Ethereum scaling. Recent breakthroughs have allowed the space to mature much faster than originally anticipated, which has positioned Scroll to build the next generation of scaling solutions that has achieved:

- bytecode compatibility with the EVM

: No new languages, tooling, trust in custom architecture or re-audits needed. Aave will be able to port over its codebase instantly and seamlessly without any extra engineering resources required.

- top-tier security through process and architecture

: Scroll has been open-sourced from day one and has been designed to prioritize the decentralization of its prover and sequencer networks, making it unique in the zk rollup space.

- pushing boundaries of cutting edge research

: Establishing a presence on Scroll will allow Aave to capture the zkEVM market in advance and reap L2 native innovation from the start and even contribute to steering how L2 user behavior will evolve short and long-term.

Generally, we believe that Aave's community and the ecosystem Scroll is striving for are closely aligned: both projects are building towards trustless and decentralized financial infrastructure that is accessible to anyone regardless of merit or location. In the following we detail Scroll's architecture and mission and how it will benefit the Aave community. We look forward to receiving feedback and are happy to answer the community's questions.

About Scroll

Scroll is a native zkEVM Layer 2 solution for Ethereum. We are committed to building an EVM equivalent zk rollup to help Ethereum become more scalable without sacrificing security.

- EVM equivalence & Developer Friendliness:

Anything less than bytecode level compatibility is an unnecessary risk that protocols should not settle for. We don't think developers should have to learn a new language or trust custom architecture which introduces unknown risk. Scroll reuses Geth, enabling seamless migration of infrastructure and will support all existing development tools, including debuggers. Developers can work with a familiar development environment. No bytecode re-audits will be required minimizing the risk surface tremendously.

- Community first:

Scroll originated in close collaboration with the Ethereum Foundation - built with the community for the community! That also means that Scroll has been peer reviewed and open source from day one. We intend to follow this strategy going forward. We will foster community innovation and participate in the incubation of new open source tools and features for the L2 space. We intend to be the #1

platform for developers and we are working with the best to achieve this (Ethereum Foundation PSE), 0xparc, zcash, Filecoin, and many more).

- Decentralization & Security:

Scroll is pioneering a decentralized prover network and is committed to outsource proof generation. By decentralizing proof generation to the community, Scroll will also have efficient proof generation and a more robust ecosystem. In addition to that Scroll has a strong in-house security team that found and reported bugs in fellow zk RU's proving systems in the past.

- Education & Research:

We pride ourselves in making research accessible to all. We continuouslypublish research in an effort to demystify the inner works of zk circuits (see https://scroll.io/blog and our public zk reading group). Scroll has been able to establish a recognized and sought after brand within a short amount of time which is also due to event series like Rollup Day which was appreciated across the board of L2 industry leaders.

- Advance Ethereum's ultimate goal:

zkEVM will not only be limited to Layer 2, it will also be used to scale Layer 1. Construction and testing of Scroll will further advance Ethereum's ultimate goal of "zkSNARK Everything" . Contribute to building a decentralized and efficient future for Ethereum!

We are live on testnet and our ecosystem is rapidly growing. Since the beginning of January 2023 our testnet has seen over 900k unique wallet addresses, and this month we've averaged over 500k transactions a day — all helping to test the robustness of our network. We have been working with major infrastructure players (including the Graph, Safe, Covalent, Orbiter, and many more) to add support for critical building blocks on the network, and we're working with best-in-class Ethereum dApps to join the network too (including Uniswap v3 on Scroll testnet).

Aave on Scroll

By launching on testnet, Aave has the opportunity to be part of this battle testing process and get a head start in the zk rollup ecosystem. In addition, many protocols who are looking to launch on Scroll have asked for integration with lending protocols such as Aave. Aave is a uniquely important DeFi lender in the Ethereum ecosystem and pioneers how the ecosystem and user behavior evolves and can continue to do so by benefiting from the explosion of potential use cases that a zk L2 affords.

We are only at the brink of uncovering L2 native use cases that have not been feasible on Ethereum Layer 1 as of now (e.g. going beyond flashloans with atomic (cross zk-RU) txs in a post-Danksharding Ethereum and further use cases we'd love to co-develop). Scroll is incentivizing developers globally to break frontiers by funding research grants, hosting educational workshops and continuously making cutting edge research publicly available. We are excited to help foster an ecosystem fuelled by creativity that revolves around Aave and the distribution of $GHO.

Bridge Security

Zk rollup is currently the most secure Layer 2 scaling solution. On the premise of inheriting the security of Ethereum, it relies exclusively on cryptography, rather than unreliable crypto-economics.

Currently, Scroll has a trustless Layer 1 <> Layer 2 bridge, which supports arbitrary message delivery. The bridge is part of the rollup mechanism, verified by the smart contract and the zkEVM, which is much more secure than classical relayer-based bridges.

Security is the first priority for us. Scroll implements the EVM which is well-specified and battle-tested. Additionally, we have an in-house security team working with 10+ external auditors who keep a close eye on the security of our codebase.

Timeline

The Scroll team will first submit the necessary snapshots for deploying Aave v3 on our testnet, following the community guidelines and working with BDG Labs on what is required. The current testnet already supports the deployment of contracts. Since we are fully compatible with EVM, it is very easy to deploy on Scroll. We expect the full deployment will take 2-3 weeks and we commit to dedicating engineering resources to support the Aave integrations team.

It is important to us to be closely in touch with the Aave community from the start and want to ensure that everything runs smoothly before starting the full governance process for the mainnet deployment.

References

- Scroll Github:

https://github.com/scroll-tech/

- Scroll Testnet Docs:

https://guide.scroll.io/

- Block Explorer:

https://l2scan.scroll.io/blocks

- Blog Posts:

https://scroll.io/blog

Technicalities

- Compatibility with Ethereum RPC endpoints:

Our nodes expose all standard geth APIs, but Erigon's. We do not have support for trace_* endpoints, but currently maintain scroll_

- that could be adapted if required.

- Indexers:

Covalent is currently indexing our network and we do have theGraph support

- Oracles:

we have a number of oracle providers deployed on our testnet such Redstone as well as Witnet and working with Chainlink to have immediate mainnet support

- Being bytecode-compatible, Scroll works out-of-the-box with all Solidity tooling. (See here)

- Wallets:

we do have Safe, Ledger, Coinbase wallet and Metamask support (and working with many aa wallets such as Soulwallet and others)

- Address formatting:

Scroll has the exact same address formatting than Ethereum