

zk Stateless client

Duration: 1 hr

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Note taker: TBA

Agenda

- [10 mins] Demo
- [10 mins] Presentation on
 - How the zk stateless client works
- [30 minutes] 2 guided session
 - [15 mins] Steps needed for shipping on mainnet
 - [15 mins] Should we explicitly enshrine a fixed set of verifiers/zkEVMs and who pays for the proofs?
- [10 mins] Summary and next steps

Summary

A zk stateless client is a new type of EL client that verifies zkEVM proofs instead of re-executing a block in order to check its validity.

The zk stateless client will request proofs from a stateful client or directly from a prover (depending on the architecture) when they receive a block header.

Goals

- Scrutinize the current iteration of the zk stateless client
- Make progress on the above open questions

Pre-reads

- How Reth works (<https://www.paradigm.xyz/2025/03/stateless-reth-nodes>)

- Poost (<https://github.com/eth-applied-research-group/poost>)