Decentralized Storage for Blobs

Ethereum History in Codex

Leo

Senior Researcher at Codex

Codex

Ethereum History

Genesis

Jul. 30th 2015
Block 0

Merge

Sep. 15th 2022
Block 15,537,393

Blobs

Mar. 13th 2024
Block 19,426,618

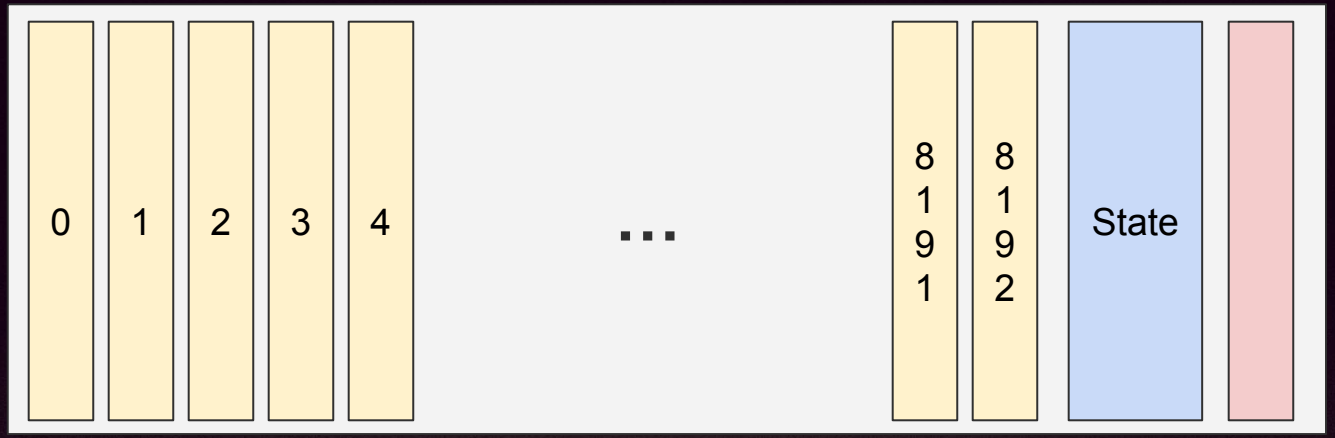
~1 TB

Ethereum History

Storing the entire Ethereum history in every node is unsustainable

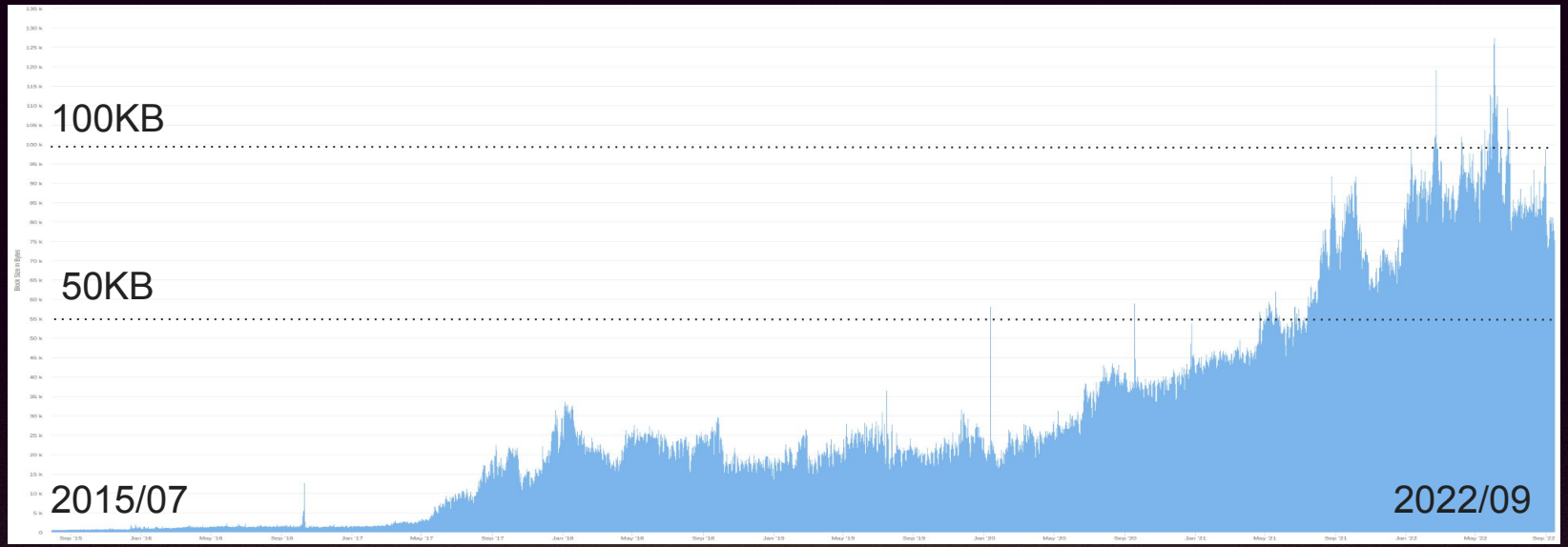
ERA files (credit to Jacek, IFT)

- ERA files includes 8192 blocks, state and index.
- One ERA file (~27 hours) is about 500~600 MB



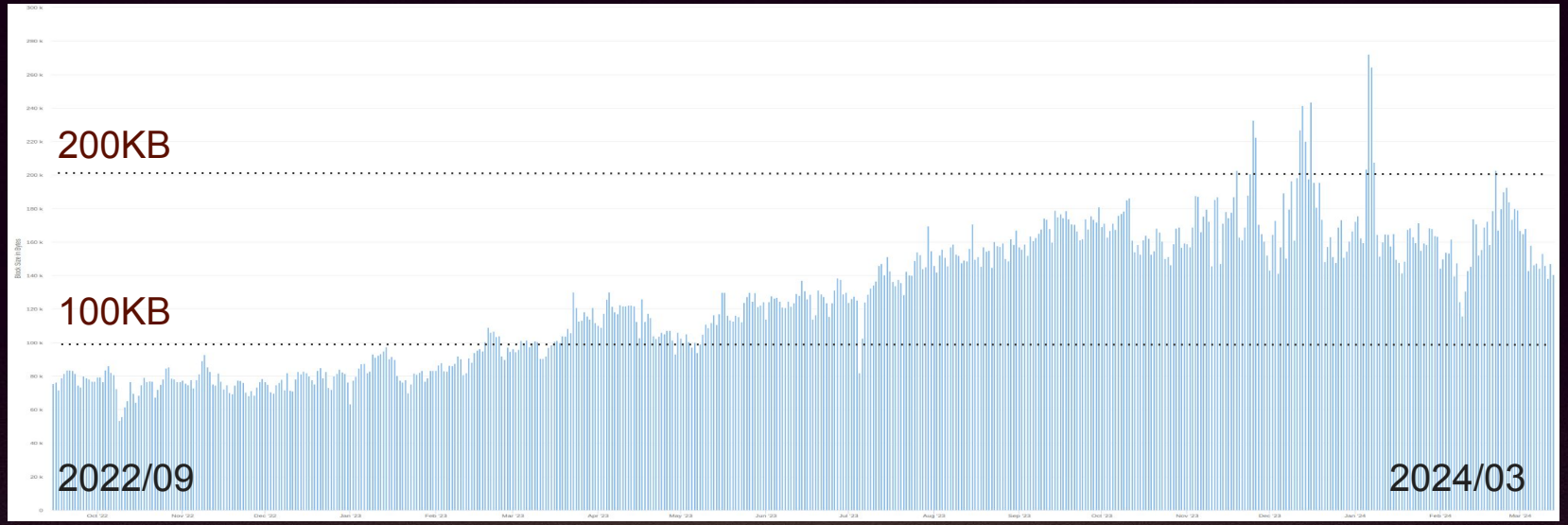
Pre-merge Data (credit to Pari, pandaOps)

- Whole pre-merge data available on Bittorrent
- About 15.5 million blocks (**427 GB**)



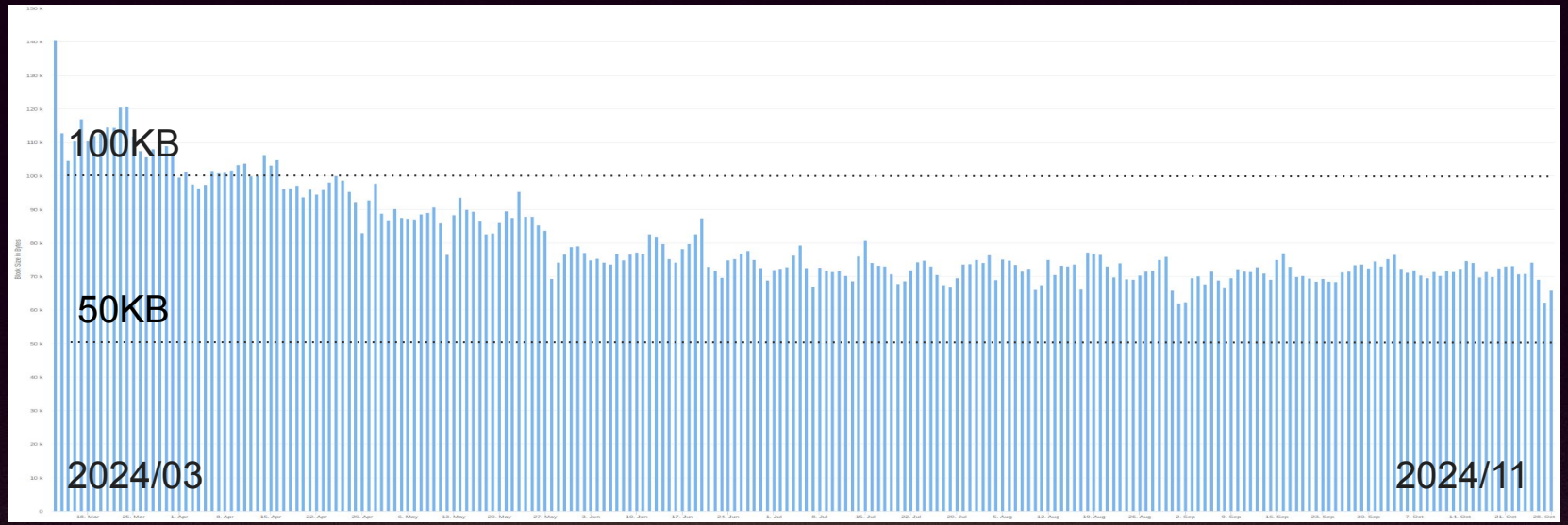
Post-merge Data (Credit to the pandaOps team)

- Ethereum Beacon Chain checkpoint sync endpoint
- Proposal to allow clients to sync from off-network sources
- Almost 4 million blocks (**98 GB**)



Post-blobs Data (credit to Nimbus team)

- Proposal of ERA files for blob data
- Blob data separated from block data (i.e., ERB files)
- No state, KZG commitments included



Codex

- Decentralized Storage
- Protected with Erasure Coding
- Reliable ZK technology

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Thank you!

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leobago.com