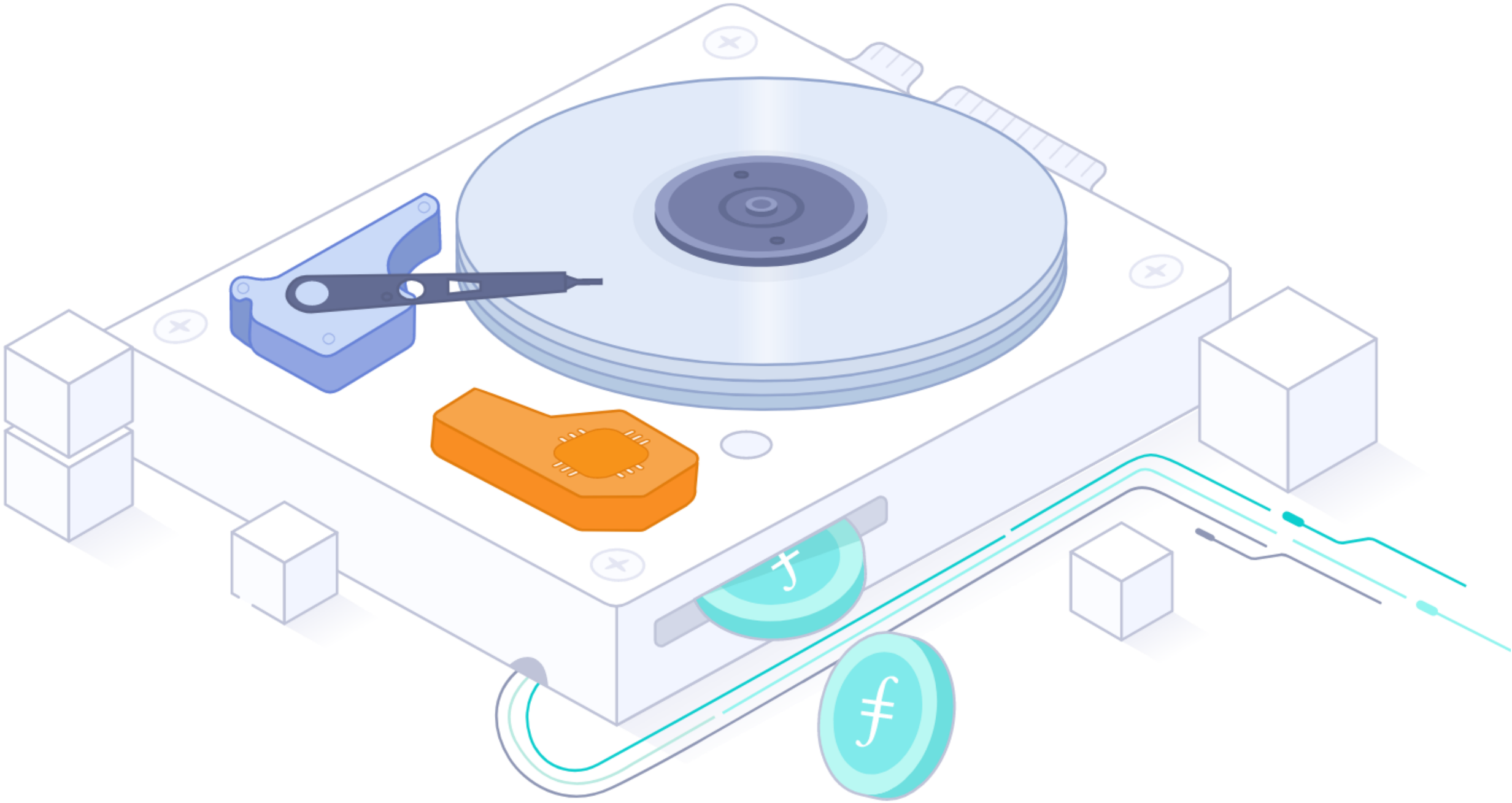


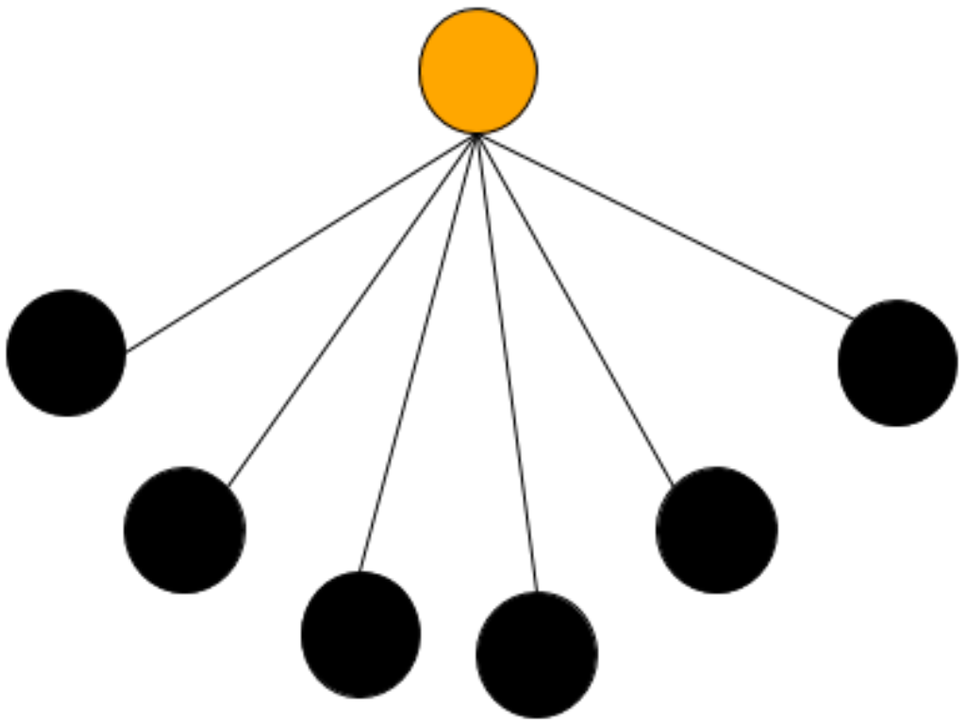
Blockchain for Storage

FileCoin, StorJ, SiaCoin, MaidSafe…

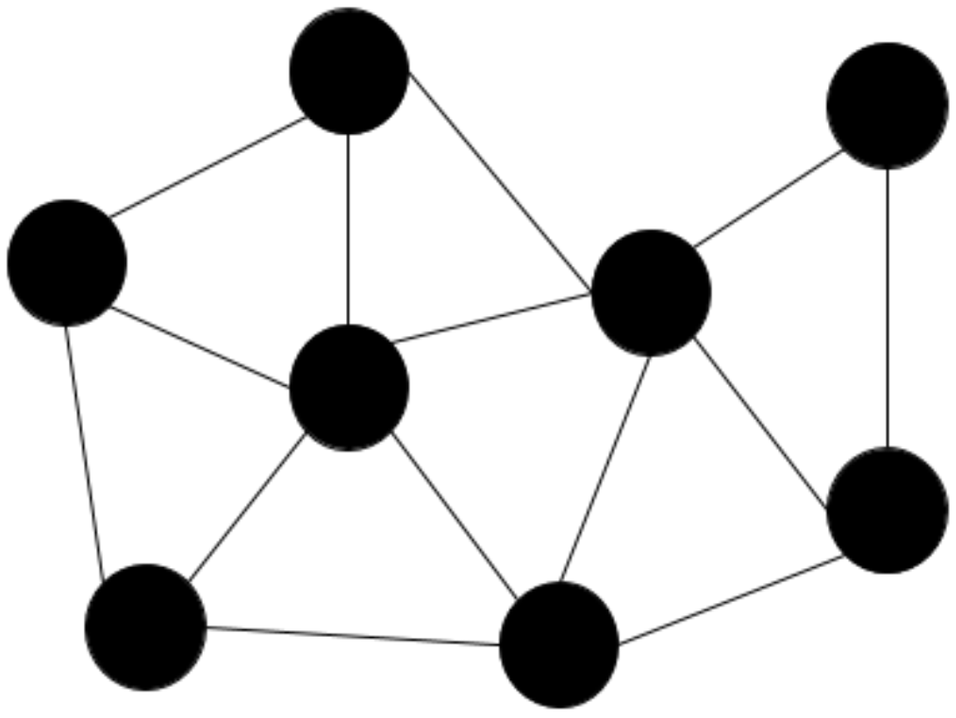
Why?

- Half of the world's storage capacity is unused
- Distributed storage is more efficient: CDN, Multi-AZ
- Storage tokens have clear utility value

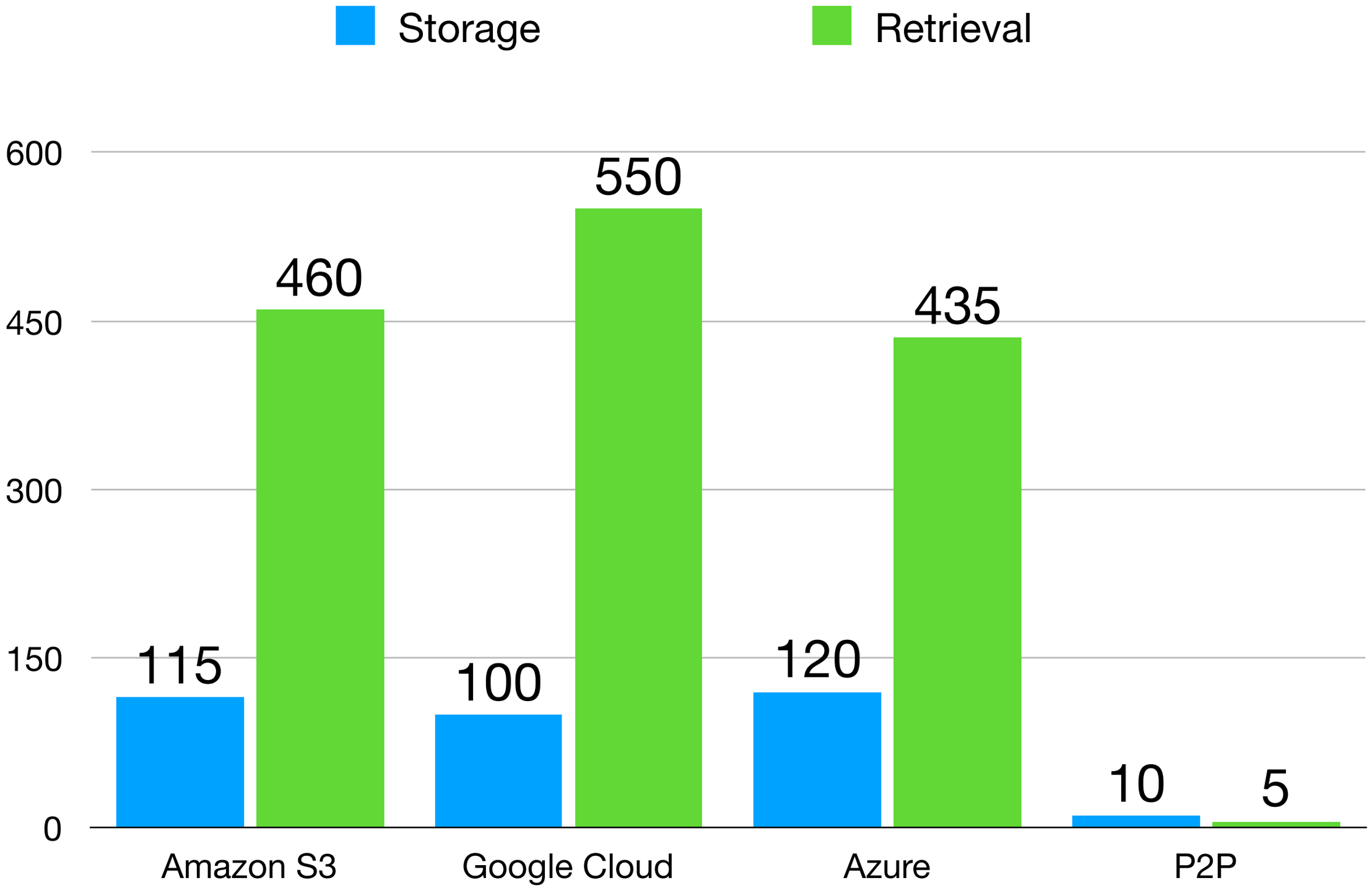
Centralized



Decentralized



- https://youtu.be/HUVmypx9HGI?t=851
- https://youtu.be/B4YGpWxyn6Y?t=23


Storage
Retrieval
600
450
300
150
0
460
550
435
115
100
120
10
5
Amazon S3
Google Cloud
Azure
P2P

What?

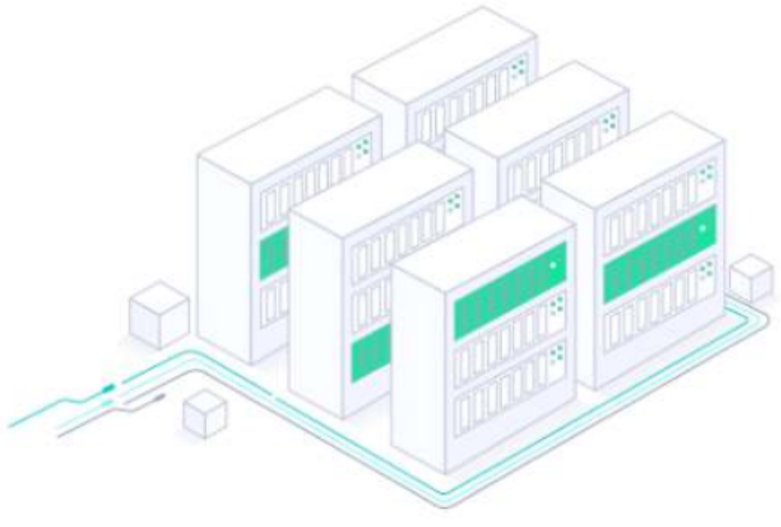
- Earn tokens for hosting files (mining)
- Spend tokens to buy reliable, distributed, cheap storage
- BitTorrent + incentives + low latency
- Storage market v/s Retrieval market

How?

- Content-based addressing: Magnet, Git, IPFS
- On-chain storage market
- Proof-of-replication
- Miners get block reward + client’s payments over time
- Off-chain retrieval market
- For retrieval, the first miner to send the file is paid

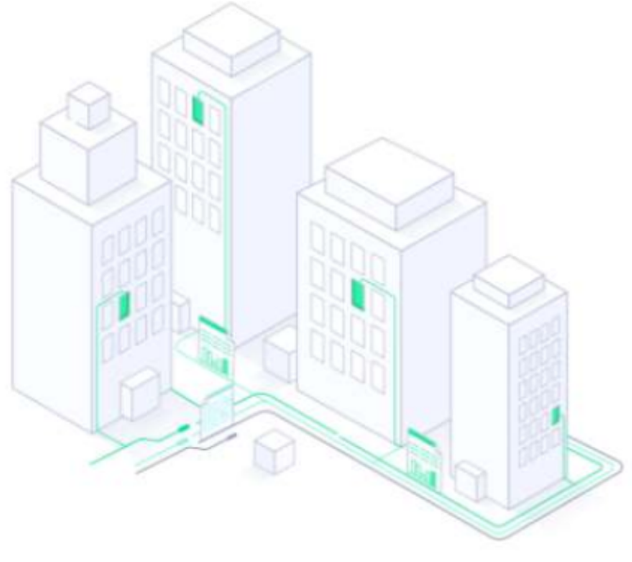
Storage Market

- On-chain *Bid* and *Ask* orders
- Global price discovery & optimization
- Enables storage provider competition to give clients the best prices
- Miners with large amounts of storage or operation cost advantages can earn significant rewards



Retrieval Market

- Off-chain *Bid* and *Ask* orders
- Uses Payment Channels
- Minimizes request latency
- Small but well-located miners can earn significant revenue
- Regional hubs automatically optimize
- Hubs continue working through network partitions



Who?

- FileCoin / IPFS
- StorJ
- SiaCoin
- MaidSafe

Differences

- Sia and StorJ are live. FileCoin expected in 2018
- FileCoin requires proof of replication and has a separate off-chain retrieval market
- FileCoin rewards fastest miner, MaidSafe uses lottery
- https://medium.com/tokenreport/filecoin-v-sia-storj-maidsafe-the-crowded-push-for-decentralized-storage-7157eb5060c9
- https://decentralize.today/decentralized-storage-wars-storj-v-sia-v-filecoin-v-maidsafe-27dc3d37434f

Why Not?

- Liability for hosting illegal content?
- Uncertainty: Retrieval Speed
- ICO shenanigans

Questions?