



User Owned-Distributed Data layer

Evaluation


Project	Data is user owned (user can read, write & delete. Others read only)	Supports data encryption (user chooses with whom to share)	Provides auth with public-private key	Has ACL/permission management (per Copilot datastore access for start)	Peer to peer data sharing	Highly performant (supports thousands of reqs/s + low latency)	Supports go dev libs & interface (queries)
Gun	✓	✓	✓	✓	✓	Semi-performant + need to test this	●
ComposeDB	✓	● (?)					✓
Tableland							
SpaceAndTime							
Polybase							
WeaveDB							
HollowDB							
Orbit DB							
Holepunch							
Peergos							
Fireproof							

go-threads						
libp2p						
Bundlr						
ActivituPub						

Johannes

- Seems like a lot of innovation is coming from IPFS and they are building P2P databases. Recommend watching all of the videos here as they are the leading experts on P2P DB's and seems to be the most up to date info (can skip the Juan talk as it's a general one):

Web3/P2P



<https://youtube.com/playlist?list=PL-6Kj0JXQcpl-xP0SKqH13T3753Son9XP>

- [3Box Research: Comparing Distributed Databases GUN, OrbitDB, and Scuttlebutt](#) - old blog post but a good high level overview.
- [NPMS trends](#) - shows libs popularity
- Should probably [compare](#) the DBs with an identical app
- **Main takeaway that most of the projects are built on libp2p and seems like would be wise to test this is also out before proceeding with more exotic options.**

Kaspar research

- [GUN](#)
 - js based
 - has very primitive database functionality - essentially just one json file where you can read a key or write a value to a key
- [ComposeDB](#)
 - graph database
 - supports GraphQL APIs → seems that supports python clients but js sdk preferred
 - auth based on blockchain wallet
 - currently in Beta
 - needs postgres as well?
 - setup looks big with a lot of steps
 - need funds in your wallet,
- [Tableland](#)
 - based on SQLite and fully ACID compliant
 - wallet or contract based auth
 - supports SQL queries
 - need still js based client library to be able to write data which also needs wallet to pay for txs
- [SpaceAndTime](#)
 - "decentralized data warehouse built for smart contracts"

- DB from the future 😊, supports natural language to GPT to SQL query
- has indexed blockchain data and is also a data warehouse with verifiable tamperproof results
- proof of SQL - verify data integrity in smart contracts
- needs Java for certain things but can access everything through rest apis as well?
- Polybase
 - advertises itself as a drop in replacement for web2 databases and the simplest product in the market
 - nosql DB with firebase like SDK
 - auth based on wallet
 - supports encryption
 - supports js only?
- WeaveDB
 - NoSQL db on arweave
 - auth based on wallet
 - API similar to firestore
 - supports encryption
 - “virtually infinitely scalable”
 - javascript SDK
- Kwil
 - SQL db for web3
 - Uses Kuneiform - new language for decentralised databases
 - has a python SDK
 - need wallet and funds to deploy the schema to eth mainnet
- HollowDB
 - decentralized privacy-preserving key-value database on Arweave
 - javascript SDK
 - seems very early and not really used