Competition Analysis

My main knowledge consists of IPFS and Filecoin, but I also did some small research about Storj and Sia, no developer experience though.

IPFS

IPFS, developed by Protocol Labs, utilizes a modified Kademlia for data storage but is not a storage provider itself. It enables file storage based on Content Identifiers (*CIDs*), similar to Swarm CIDs, which represent the hash of the data with additional metadata. Unlike Swarm, IPFS relies on nodes to pin files for long-term storage. Various pinning services, like Pinata, offer storage for a fee. IPFS also allows hosting websites, but performance issues may arise, often requiring centralized solutions. The system uses the ipfs:// prefix and aspires to become a standard but faces challenges in stability and widespread adoption.

Filecoin

Also developed by Protocol Labs, Filecoin introduces storage incentives, creating a storage marketplace. Nodes set their terms, such as accepting deals only from verified clients or specifying deal duration. Filecoin employs the Proof-of-Storage consensus mechanism, combining Proof-of-Spacetime and Proof-of-Replication. It aims to support multiple virtual machines, starting with EVM and later adding WASM for smart contract development. Notably, IPFS and Filecoin have separate namespaces, making data migration non-trivial. Directly accessing data on Filecoin is challenging, and decentralized data replication and repair are ongoing challenges.

Storj

Storj focuses on replacing traditional storage providers, offering S3 compatibility. While it does not aim to power the broader internet like IPFS and Swarm, it promises seamless integration with existing storage paradigms. Storj is Ethereum-based.

Sia

Sia is relatively old, it has been around since 2014.
Sia has it's on cryptocurrency (it’s not just a token).
According to it's website, Sia also has applications written on it. Sia is using smart contract technology, that it calls *file contracts*.

Arweave

Arweave also aims to power webpages as well (not just storage). Has it's native token.
In my experience, it is more centralized in that sense, that it will push you to the direction to use default gateways more readily than the IPFS community.

BitTorrent

Blockchain-based, uses the TRON network.
Designed in a way that you can easily remove illegal content.
It is forked from IPFS.
BTFS leverages the existing BitTorrent network, that's why it can have such a huge node count.

Maidsafe

It's a very old project. It started in 2006. They want to provide security and privacy to everyone, "*We will do so by building the SAFE Network, the world's first autonomous and decentralised data network*."
It does not use blockchain or any other type of public ledger.
Their forum is active, the project is not dead, but much less people knows about this project than let's say IPFS or Storj.
On Telegram, they said: *"The network is not yet complete and is pre-beta, so no explorer"*. We don't know stats about this network.

Utopia

"*Utopia is your all-in-one kit for secure instant messaging, encrypted e-mail communication, anonymous payments and private web browsing*."
Again, it aims to be more than just storage, but it's adoption is most likely lower than IPFS.
It is forked from IPFS.

GenesysGo

This is some Solana infrastructur supporting network. It is not providing general storage. It was designed to help expand Solana infrastructure and to decentralize Solana more.

Crust

Crust is mainly uses IPFS, although it says it *"supports multiple storage layer protocols"*, but currently it is mainly IPFS. It provides an incentive mechanism, that IPFS does not have.

ScPrime

Advertises itself as *"distributed datacenter"*, I think it mainly tries to replace Amazon S3 and similar things. They offer a device called *Xa-Miner*, that you can turn on and start mining (storing data). It seems like you need to buy a license to be able to operate it. It's very likely that the software that is running on it is not open source. They are very strict on illegal content. SCP is somehow related to Sia, seems like some proprietary version of Sia.

Züs

Aims to be S3 alternative. Aims to be able to serve websites. It seems like that privacy is very important to them. The entities who are providing storage are called *blobbers*. It seems like they are not using Kademlia to create a decentralized storage network, they invented something else. It is blockchain based. Previously it was called *0Chain*.

Aleph

They are aiming to provide VM infrastructure. It is somehow related to IPFS, the *immutable volumes* are using IPFS. I wanted to create a *debian-11* VM for test, but I would need to stake 2000 ALEPH, which is like $360. If they can really provide a decentralized VPS network, that's a big thing, that would be really cool.
I wouldn't say that they are our competitors, because they are providing cloud server infrastructure (lambda function alternatives and VPS), not storage.

4EverLand

Ez egy aggregátor. *"A blockchain technology-powered, Web 3.0 cloud computing platform"*. Olyan rendszereket aggregál, mint például IPFS, Filecoin, vagy Arweave. Elvileg számítási-kapacitást is tud adni, de a Golem-hez szerintem nincs köze.

Resource list:

https://probelab.io/ipfsdht/
https://crust.subscan.io/storage
https://scpri.me/keyperfind/
https://scan.btfs.io/#/
https://filfox.info/en
https://filecoin.io/blog/posts/filecoin-in-2021-looking-back-at-a-year-of-exponential-growth/
https://siascan.com/
http://storjnet.info/
https://forum.storj.io/t/what-is-the-current-usage-space-on-storj-total-capacity/11935?replies_to_post_number=6
https://viewblock.io/arweave/stats
https://docs.zus.network/products/atlus/charts/network-charts#unique-addresses
https://explorer.aleph.im/
https://swarmscan.io/