MOHIT BHAT

@mbcse50

I was researching and building something on top of decentralised storage networks and there service providers and here is my findings 🧵 ⍒

@IPFS/@Filecoin - Its a decentralised peer to peer based storage protocol which uses content addressing to store data. Whenever you upload something on it, The content is hashed and it acts as a id to lookup and retrieve it on the network.

If you upload same content, its id will be same(no redundant data). There are many service providers/tools on top of ipfs. Some of the widely used ones are @infura_io , @pinatacloud , @nft_storage , @Web3Storage , @LighthouseWeb3 , @storj . Lets have a look on them ⍒

(Ipfs-http-client) - Infura runs an ipfs/filecoin node and provides you a gateway url and apis which you can connect with ipfs-http-client npm library to store and pin data on pay as you go model. It is one of the widely used ipfs infrastructure.

Ethereum API | IPFS API & Gateway | ETH Nodes as a Service

Infura's development suite provides instant, scalable API access to the Ethereum and IPFS network...

http://infura.io

- Its a pinning service, which charges you some amount and in return stores & pins data on multiple ipfs nodes across its network. Its one of the widely used service for ipfs and its sdk & apis are very easy to use. It provides 1GB of free storage.

Pinata | Your home for NFT media

Welcome to Pinata - Your home for NFT Media. We power the web3 space distributing content for NFT...
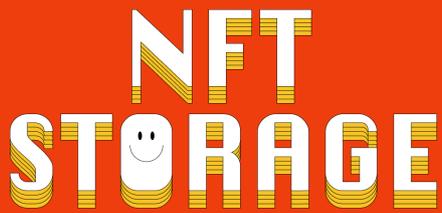
http://pinata.cloud

- Another easy to use provider which aims on providing beginner friendly dashboard, apis and sdk's to store data on ipfs. It has simplified data storage on ipfs. Its currently free to use!

Web3 Storage - Simple file storage with IPFS & Filecoin

With Web3.Storage you get all the benefits of decentralized storage and content addressing with t...

http://web3.storage

- Its actually a subset of web3storage. web3storage is used to store any kind of file while nftstorage is designed for nft data. It provides some cool functions to upload all metadata, images in one go. It's again free to use.

NFT.Storage - Free decentralized storage and bandwidth for NFTs on IPFS & Filecoin.

NFT.Storage homepage

http://nft.storage

- Its actually a decentralised cloud storage but it provides apis to store and pin data on ipfs. Storj is also very easy to use. Storing through storj distributes pieces of your data across 13,500+ geographical diverse Storage Nodes in 100 countries.

Storj IPFS Pinning

Upload and share up to 64mb for 30 days powered by Storj DCS
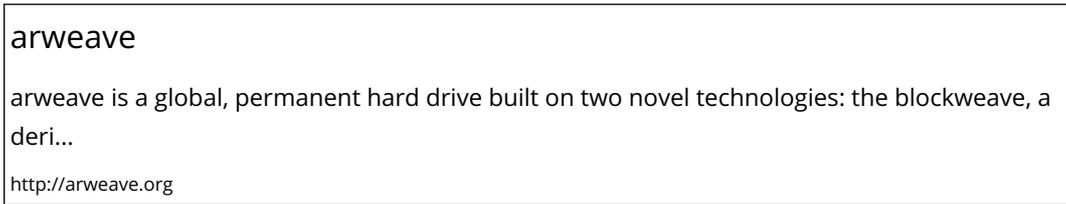
http://storj.io/ipfs

- Another new and great service to store data with amazing features. It provides pay ones and store forever kind of model for ipfs at cheap price. It also has Encryption and Access Control so that you can store private data and restrict access to it.

http://lighthouse.storage

Ipfs is great and widely used but the only problem is you have to keep paying for storage. Though lighthouse has come with unique pay ones store forever model but other providers still are on pay as you go model.
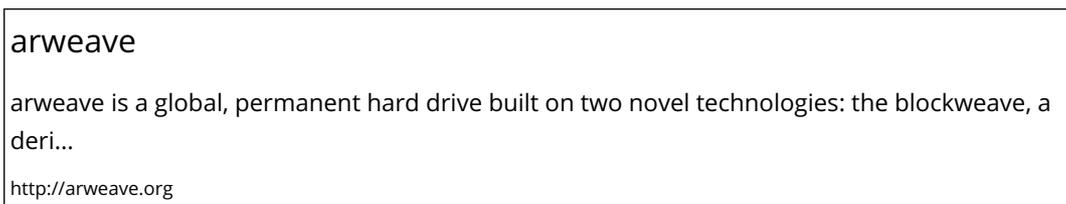
Now coming to permanent decentralised storage network: Arweave allows you to lend your free hard disk space, with pay ones and store forever kind of model. Its a transaction based data storage blockchain. Each upload is a new transaction with new id.

> **arweave**
>
> arweave is a global, permanent hard drive built on two novel technologies: the blockweave, a deri...
>
> http://arweave.org

Here when you upload data, A transaction is done and then data tx is mined in blocks and stored across network
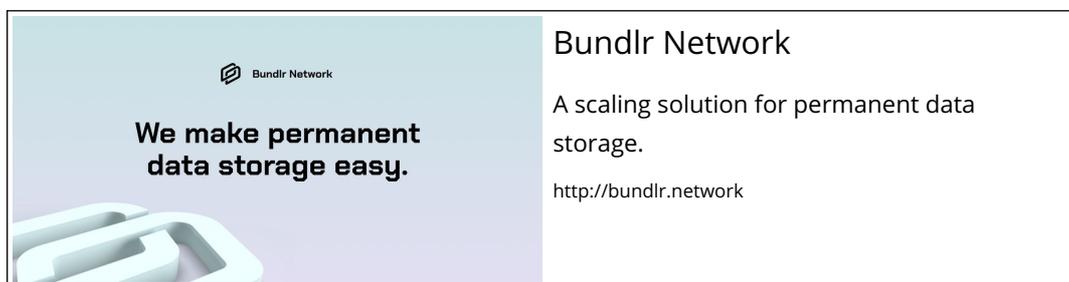
There are two ways to store data on arweave one is @Arweave itself and another is @BundlrNetwork

- The sdk and api's provided by arweave are easy to use. The only problem with this is the time it takes to mine a data transaction. Its slow and you have to wait until transaction is mined to guarantee that your data is permanently stored.

> **arweave**
>
> arweave is a global, permanent hard drive built on two novel technologies: the blockweave, a deri...
>
> http://arweave.org

The payment is done in Ar(arweave) crypto currency based on the size of data you are storing. Its one time fee only and afterwards you data is available forever on arweave.

- It is the solution for long time taking issue of arweave. Its built on top of arweave and you can think of it as layer2 solution for arweave. It bundles multiple data transaction in one and uploads it to arweave.

> **Bundlr Network**
>
> A scaling solution for permanent data storage.
>
> http://bundlr.network

Bundlr has a lot of features and is very fast. It makes uploaded data available on arweave immediately and bundlr nodes guarantee and handles the upload of data to arweave. It also allows you to pay for data storage in multiple cryptocurrencies like eth, sol, matic, etc.

If you talk about speed of storing. I found
lighthouse > pinata > infura > web3storage > nftstorage > bundlr > arweave. The time

difference is actually minor between ipfs services and depends on many factors actually. Storj is in beta so not comparing as of now!

@FilFoundation @IPFS @ArweaveTeam @Arweavers @ArweaveMemes @FilecoinMemes @FilecoinDevs @pinatacloud
#ipfs #Filecoin #IPFS #pinata #arweave #bundlr #Blockchain #Web3 #Crypto #web3community