6 of the Best Decentralized Storage Networks

Introduction

Open source and decentralization are the core ethos of Web 3.0. Chris Dixon explains why decentralization matters in this medium blog. Decentralized file storage is critical for the success of Web 3.0 so users and creators can take control of the internet once and for all. While blockchains are built for decentralized storage, they are not designed to store large file sizes. They are meant for handling transaction data, smart contracts, and the source code.

To put it in perspective, both Bitcoin and Ethereum ledger are less than 1 TB each whereas, in 2020, the internet stored 40 billion TB of data as per some estimates. Most value creation or value transfer on the internet in the future would involve some kind of content or a file that needs a decentralized, permanent storage solution. The good news is that there are a number of solutions/projects that are working while keeping decentralized permanent storage in mind.

Arweave

Arweave was originally named Archain. It is a decentralized storage network founded by Sam Williams and William Jones. The goal of Arweave is to permanently store files over a distributed network of computers.

Arweave protocol works on two layers:

1. **Blockweave:** Arweave stores its data in a graph of blocks. Each block is linked to two earlier blocks in Arweave, forming a structure called a “blockweave.”
2. **Permaweb:** everything published on the permaweb is available forever. The permaweb offers low-cost, zero maintenance, permanent hosting of web apps and web pages.