Filecoin-backed
IPFS Pinning Services (FPS)

Filecoin-backed Pinning Services provide the performance and availability of IPFS and the persistence of Filecoin's decentralized storage network.

What is it?

Filecoin-backed pinning services (FPS) are data storage and retrieval services that offer the performance of IPFS and data persistence enabled by Filecoin's decentralized storage network (DSN). FPS providers expose IPFS **and** Filecoin functionality through a generalized IPFS Pinning API, making it seamless for IPFS application developers to include Filecoin's DSN in their stack. There are several service providers that aim to offer FPS in the near future.

Filecoin-backed pinning services offer a number of key benefits:

- **Persist your data on a decentralized storage network.** IPFS users tend to use IPFS because it is a performant, peer-to-peer, decentralized network and protocol. **So is Filecoin.** By storing your application data on an FPS, you receive the benefits of outsourcing your storage infrastructure without having to compromise on the values of decentralization.
- **Use a familiar API to interact with the Filecoin network.** Developers can interface with **both** IPFS **and** Filecoin nodes through one generalized **IPFS Pinning API**, abstracting away some of the deal and file management patterns inherent to Filecoin. You won't have to learn the ins and outs of Filecoin APIs in order to experience many Filecoin features, e.g. storage in different geographies, redundant copies, cryptographic storage receipts, and more!
- **Outsourced infrastructure for multiple peer-to-peer networks.** Like other IPFS pinning services, FPS services are often preferred alternatives to maintaining your own nodes on multiple peer-to-peer networks. FPS providers handle resource management and networking so application developers can focus on delivering a delightful, usable product on web3 infrastructure.

Who should use FPS?

The FPS solution is targeted towards application developers who want IPFS performance and an interface to the Filecoin network, but who do not want to maintain IPFS and Filecoin nodes. Developers can use Filecoin-backed pinning services to achieve values of decentralization, resilience, and peer-to-peer networks while maintaining storage/retrieval performance and cost savings. Those who prefer to maintain their own infrastructure can look to solutions like Powergate or directly running go-ipfs, lotus and go-filecoin nodes.

How does it work?

Filecoin-backed pinning services embed IPFS and Filecoin software clients, communicating with both clients using their native APIs. IPFS/Filecoin nodes speak libp2p protocols and transfer IPLD data back and forth. FPS services manage the flow of data between the IPFS DHT and Filecoin miners, employing intelligent caching strategies to keep popular data readily available.

Interested in more information?

Several service providers, including Textile and ChainSafe, are offering FPS services/offerings to beta testers. Please reach out to the Protocol Labs collaborations team for more information and resources.