AEGEUS.

Anti-FUD Document

Addressing FUD in Aegeus

V2.0 November 2018

CONTENTS

AEGEUS.

01. Explanation

InterPlanetary File System (IPFS) is a distributed file system that seeks to connect all computing devices, no matter where they are, with the same system of files.

In some ways, IPFS tires to solve the same problems as the world wide web, but IPFS is actually more similar to a single bittorrent swarm exchanging git objects. IPFS has the potential to become a new major subsystem of the internet. If built right, it could complement or replace HTTP.

The possibilities are endless, but for data creation, storage and distribution, IPFS has immense opportunities.

Rather than referring to pictures, articles and video objects via their server location, IPFS refers to everything by the hash on the file.

When a user tries to access a file, IPFS will search the entire network for the node that carries this particular file relating to the specific hash. The node then provides the user with the access for the file.

This mechanism applies a cryptographic hash to the file to provide the user with a very small and secure representation of the file. This process prevents another user from developing another file of that

same hash and uses that as the address. IPFS interacts with specific objects and paths within that very node.

Finding a file using IPFS helps significantly reduce the load across the network. It normally involves two steps:

1. *Identify the file with content addressing*
2. *Go and find it: The user having the hash asks the network that he/she is connected to "who has this content (hash)?". The user then connects to the corresponding node and downloads the desired file.*

The result is a peer to peer overlay that gives the user a very fast routing.

02. Addressing/Identifying Content

IPFS objects are data structures with two fields:

1. Data - A blob of unstructured binary data of size < 256 kb.
2. Links - An array of link structures. These are links to other IPFS objects.

A Link Structure has three data fields:

1. Name - The name of the Link.
2. Hash - The hash of the linked IPFS object.
3. Size - The cumulative size of the linked IPFS object, including its following links.

The Size is mainly used for optimizing the P2P networking. IPFS objects are normally referred to by their Base58 encoded hash.

03. IPFS Objects

No duplication (de-duplication) as everything is addressed by a hash.

File Integrity - Files match the hash and allows for hosting rewards to be distributed to participant nodes.

Cheaper hosting

High performance - Better peer-to-peer scaling

Clustered/distributed persistence/availability

Archiving immutable data

Censorship resistant, except self-censorship

Access to content "offline" or in low connectivity areas in the same sense that git works offline

Directory browsing, Multi-hash, multiple transport support, etc.

04. Benefits of IPFS

IPFS is basically the only existing distributed file system with a proven track record and is supported by an active development team. IPFS is definitely going to be used in many future applications and more notably it has a very strong development audience.

To find out more about IPFS, it's development team, publications and upcoming events, please visit "*https://ipfs.io/*".

05. Conclusion

Aegeus seeks to combine the power of a distributed ledger (*Blockchain*) with adistributed filesystem (*IPFS*). Our goal is to not only create an intuitive user interface that allows people to *create*, *control* and *manage* their data, but also to build ina parallel,private network of IPFS nodes with a customized *version* that provides incentives for reliable nodes serving content.

Using the Aegeus blockchain to keep a current reference to data on our own private IPFS network, we can assure users that their data is managed by them, not by any single entity or authority and with complete transparency.

This is what Aegeus proposes to introduce to the cryptocurrency space with a long term vision. Additional IPFS technology is planned as soon as initial protocols are released.


AEGEUS.