

IPFS

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The Distributed Web

# About Me

- Software developer since 1999
- Several years as front-end (JavaScript) developer
- Full stack developer for RTB system
- Senior software developer in Thunder Core Team



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# What is IPFS?

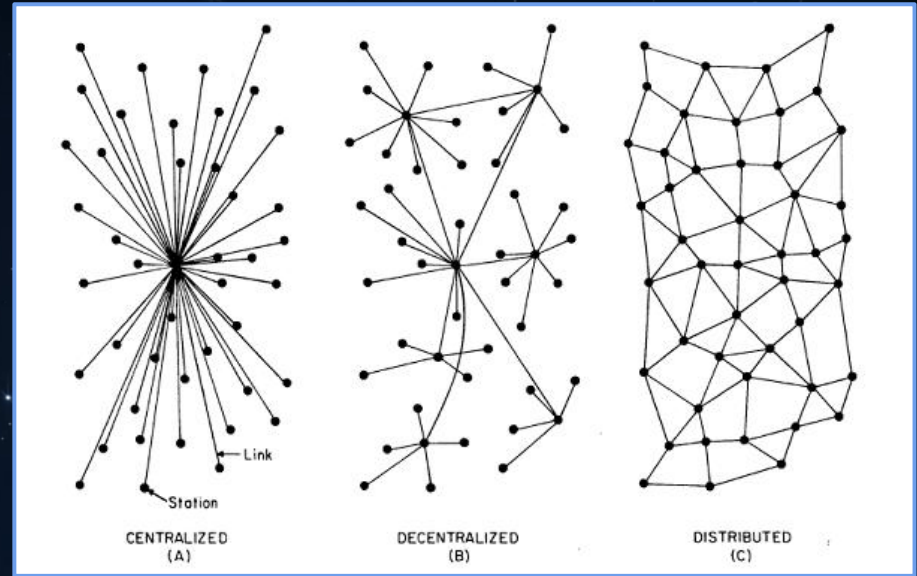
IPFS stands for Interplanetary File System

- distributed file storage
- but also definition of protocols

# Basis of IPFS

- Distributed network
- File HASH
- Addressing by HASH

IPFS stores files addressed by HASH  
in distributed network



QmZpfnN5rucQC4kx7Gu5udS8FXxsxMddiDCvG8WFjG8SMv

# What about folders?

- it's flat structure
- but still folder looks like this ->
- it creates merkle tree

```
{
  "data": "CAE=",
  "links": [
    {
      "Cid": {"/":
"QmbFMke1KXqn..."},
      "Name": "index.html",
      "Size": 6
    },
    {
      "Cid": {"/":
"QmQKk6Tp4p..."},
      "Name":
"nice_image.jpeg",
      "Size": 392847
    }
  ]
}
```

# Benefits of IPFS

- Portals don't have to be online full time (no downtime)
- Bandwidth and better Latency (replacement for CDN)
- Cooperative applications (example Google Docs)
- Permanence
- Security

# Concerns

- Out of the box support by browsers or operating systems
- No ownership

# IPFS ecosystem

- IPNS (Interplanetary Naming System)
- Filecoin (get payed for storing files)
- AKASHA (a Next-Generation Social Media Network)
- Key/Value database (orbit-db)



# Possible uses for Drupal

- Source code (new release -> new hash)
- Database layer
- Full application stack
- Storage of uploaded files
- Content

DEMO

Thank you!

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Questions?