



# STATE OF ENS DOMAINS

Part 2: alternative DNS roots, decentralised storage and CDN

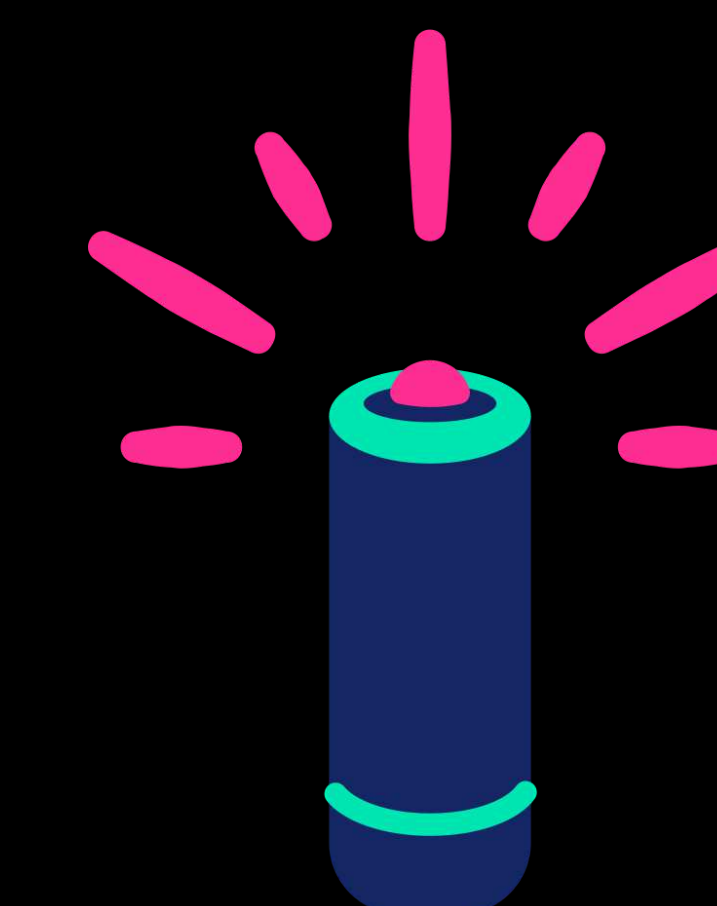


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/ Brother Day: **One**  
Design. Manufacture. Sell.

Presented by Steve Huguenin at Geneva DevChain Meetup  
which takes place online on 10 January 2023





# Content

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Alternative DNS roots

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Handshake

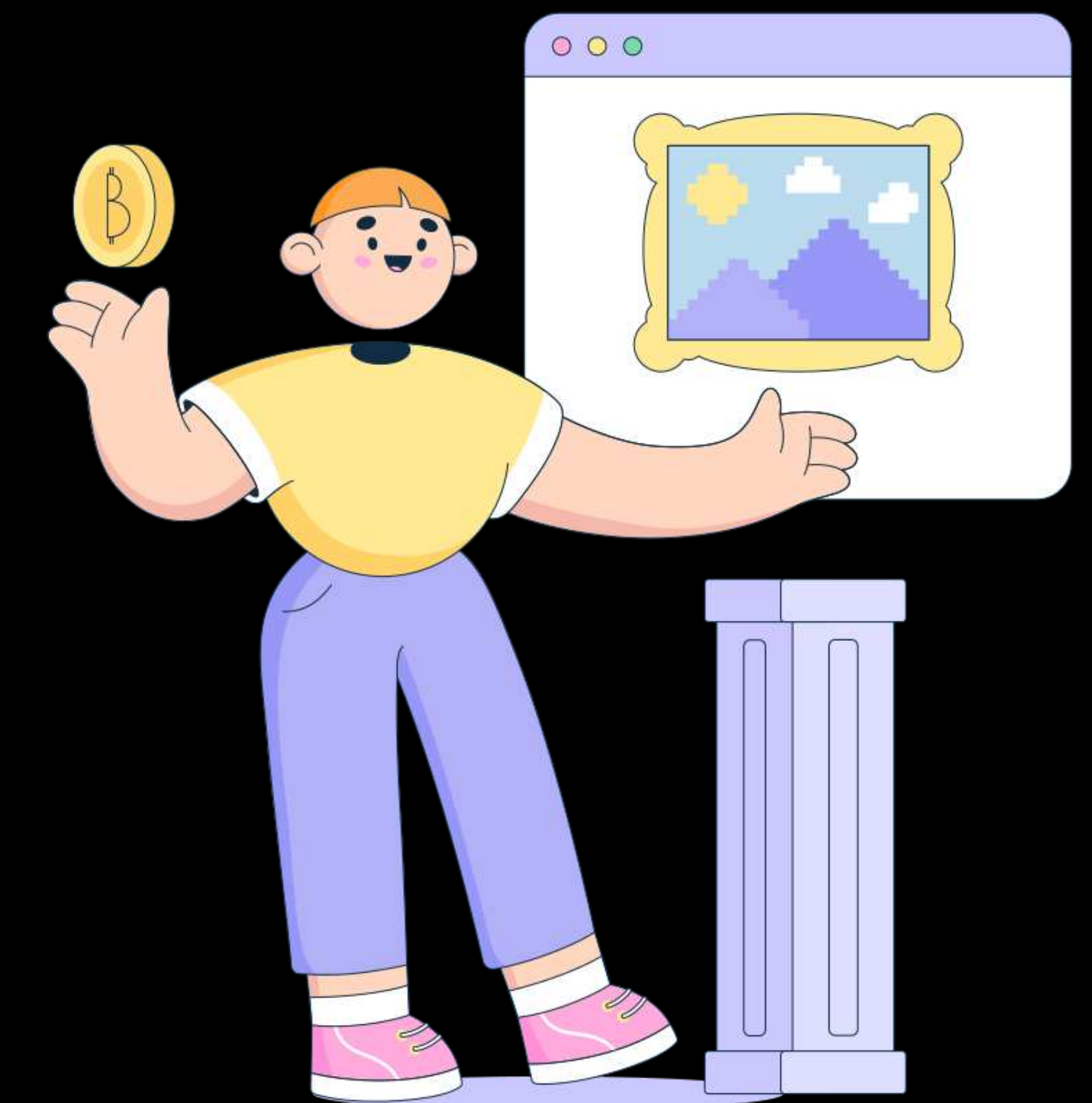
OpenNIC Project

Decentralised Storage

Swarm

Ocean Protocol

Theta



# Domain Name System (DNS) 🌐

In both OSI and TCP/IP reference models, name service refer to the application Layer.

**A name service is an internet protocol for translation (resolution) of network identifiers (= addresses) with human readable names (= domain names).**



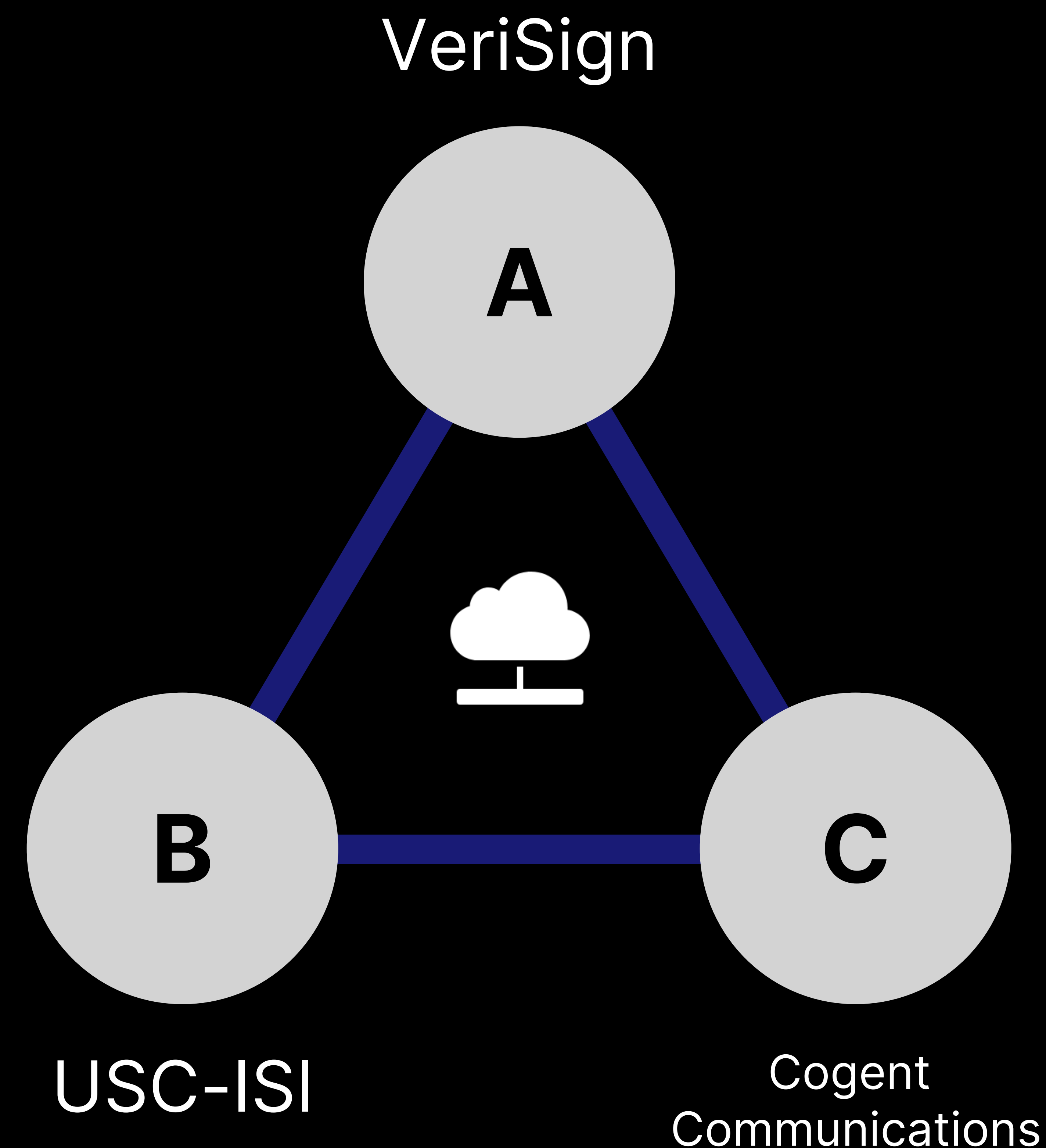
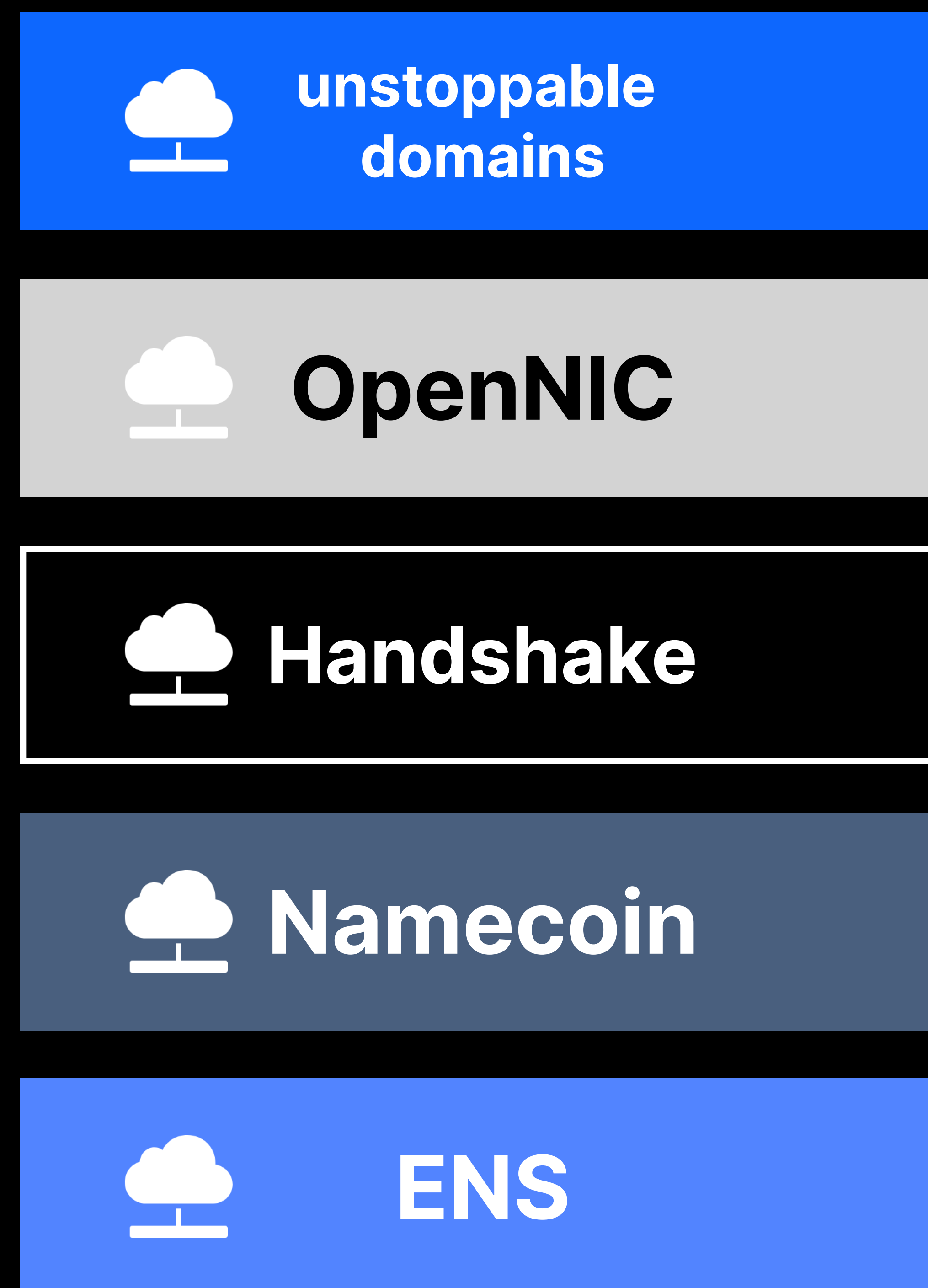
Name service primarily resolves **domain names** into **adresses**, but could also translates **adresses** into **domain names**.



# Alternative DNS roots

**ICANN** introduced a DNS root which contains all browsable TLDs addresses in the world.

This DNS root is shared between multiple main servers in the world and constitutes a cause of controversy.



***Different root, same internet***

# Unstoppable domains

Minted on Polygon PoS (L1)

No standard what so ever

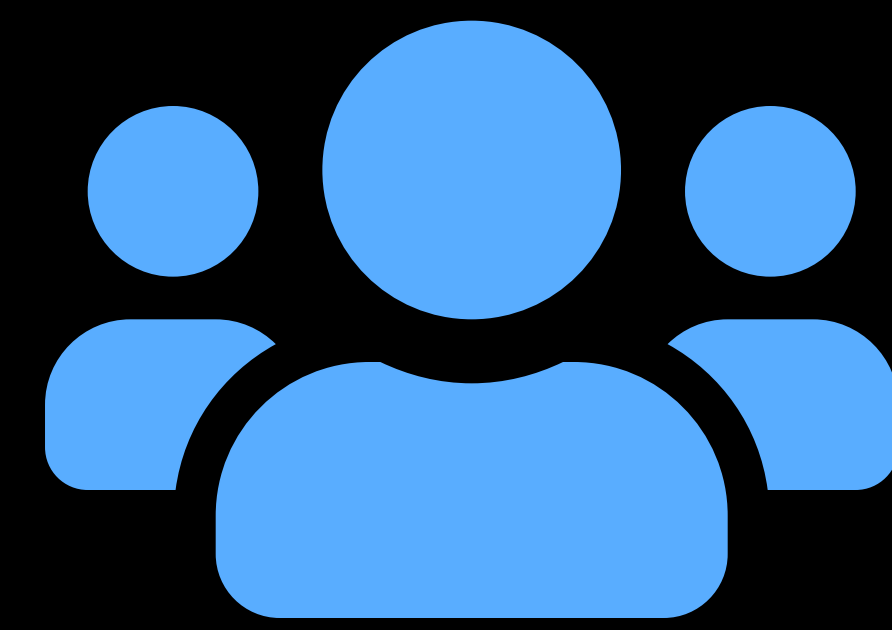
Multi-chain support

Claim +662 integrations on various software stacks

Run as a profit organisation



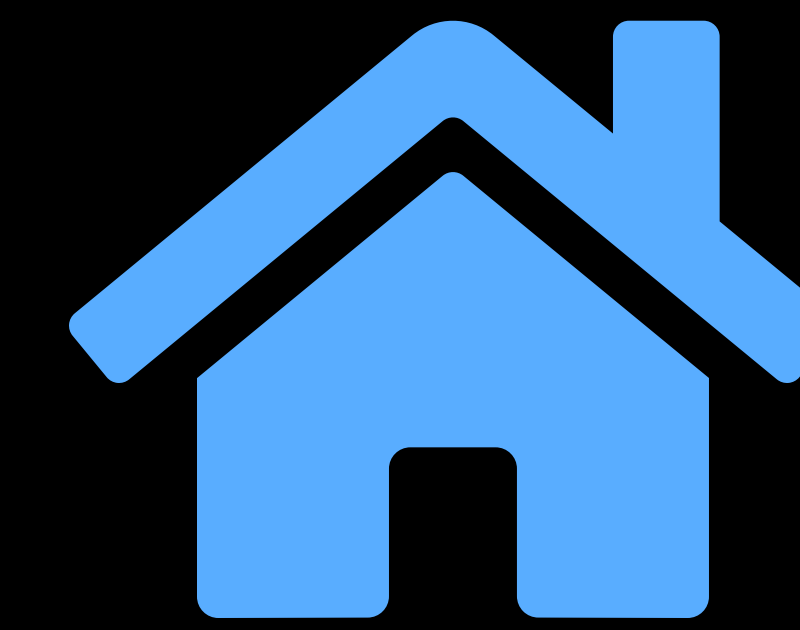
# OpenNIC Project



**DNS neutrality**



**No cost**



**Stop DNS hijacking**

Provide alternative TLDs like .bbs, .cyb, .dyn, .geek, .gopher, .indy, .libre, .neo, .null, .o, .oss, .oz, .parody, .pirate, etc.

*.bit was formerly supported by OpenNIC.*

# Handshake

Experimental

Decentralised

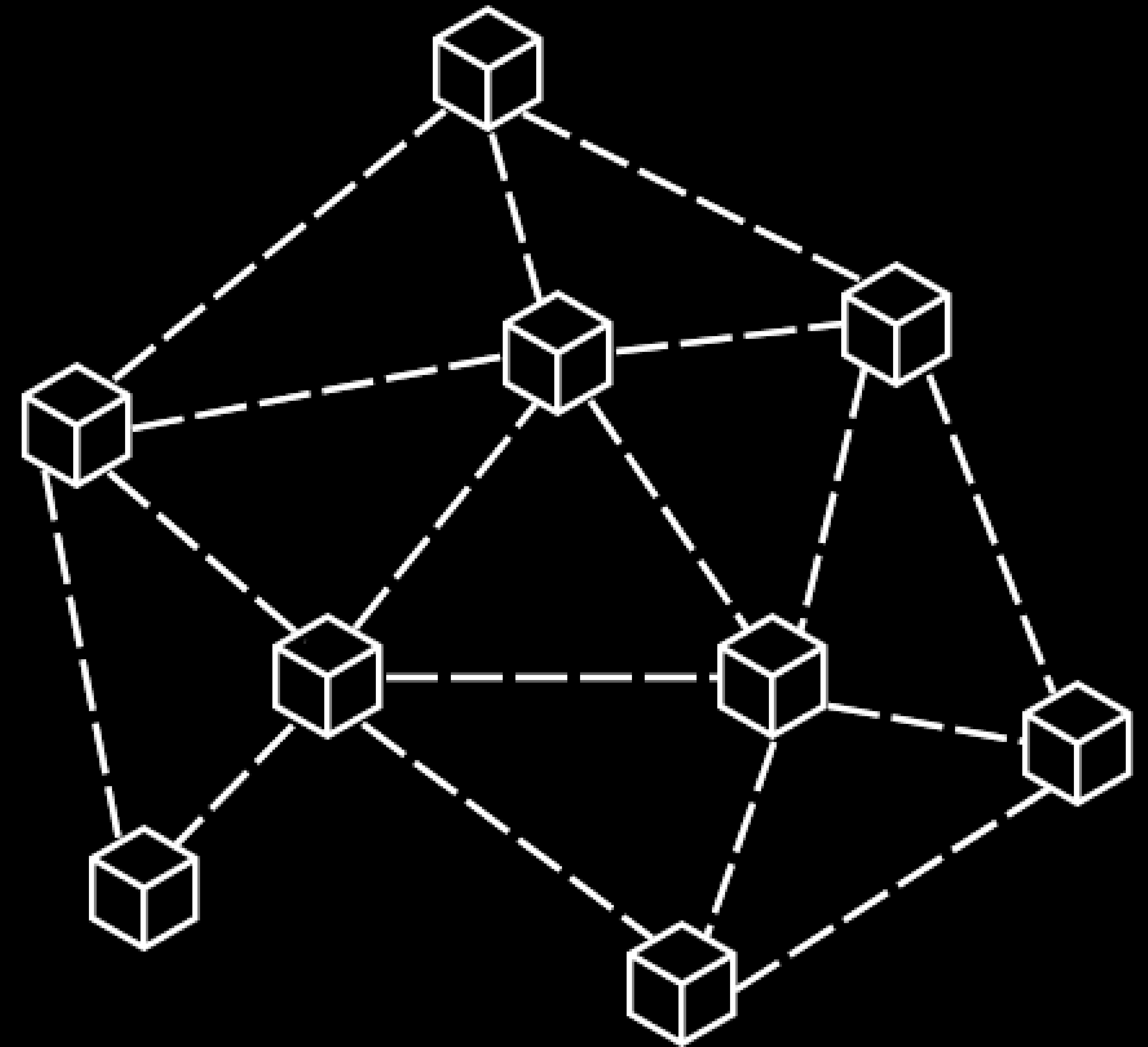
Permissionless

P2P alternative

Relies on a proper Layer 1 chain

Promoted by Namebase

Topless domains supported



*Email became Gmail, usenet became reddit, blog replies became facebook and Medium, pingbacks became twitter, squid became Cloudflare, even gnutella became The Pirate Bay.*

# Namecoin

Relies on Bitcoin UTXO standard

Decentralised TLS encryption

Works alongside Tor encryption

.bit top level domain

Support for GPG and OTR keys and email, Bitcoin, and Bitmessage addresses



# Decentralised storage

Most websites are hosted on Amazon S3.

IPFS and Filecoin were introduced to provide an alternative to server storage.

## IPFS based

 CRUST

 Filecoin

 orbit  
db

 züs

## Full stack

 aleph.im

 arweave.org

 iagon

 Ceramic

 swarm

# Ethereum Swarm

Can be used for websites and CDN

Interoperable with ENS but no support yet in [MetaMask](#)

Very similar to [Arweave](#) and [Filecoin](#)

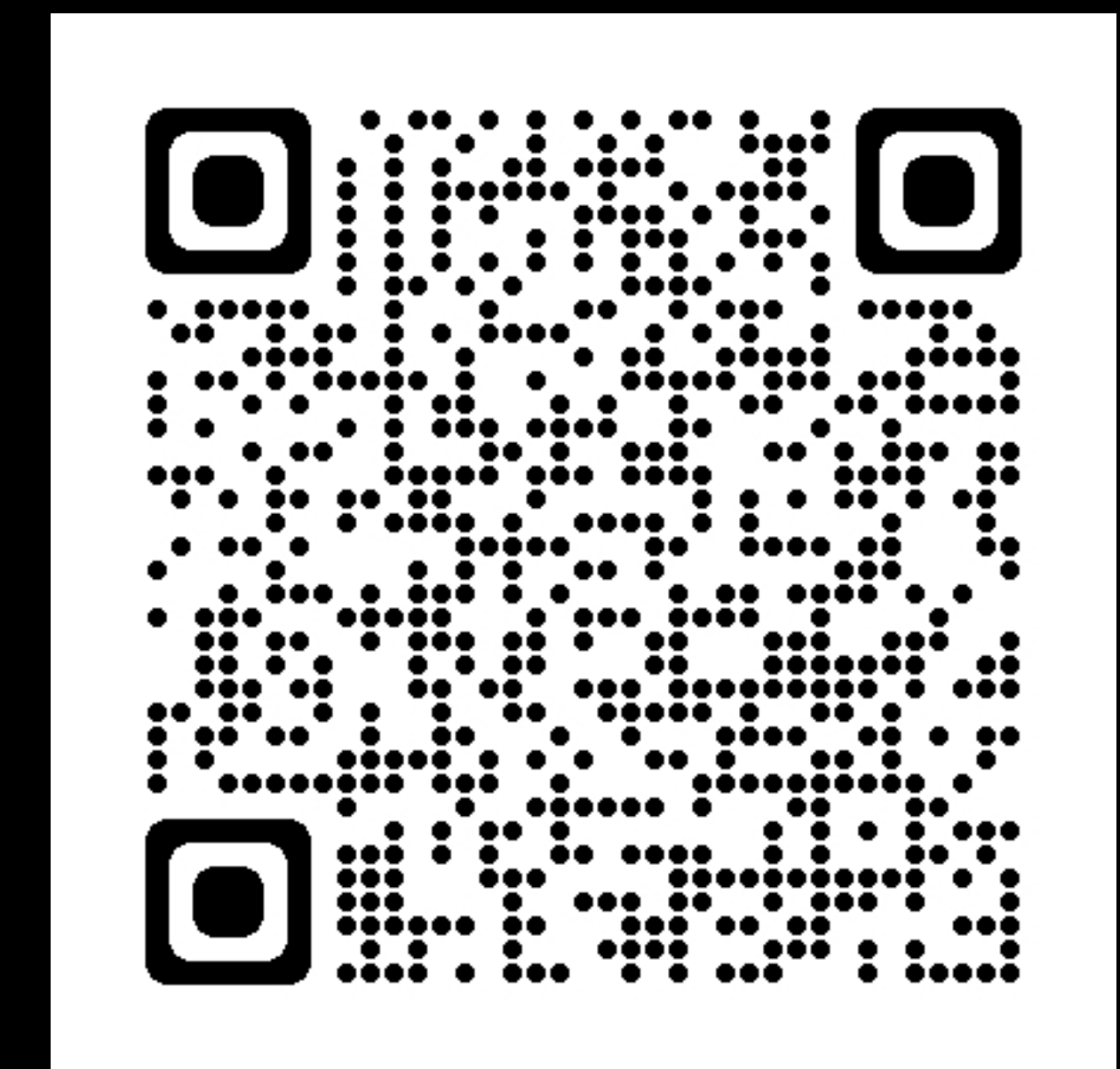
Featured in an article on [Hackernoon](#) as a serious alternative to [Filecoin](#)

Used as hosting for DevCon 6 talks as an alternative to [IPFS](#) and YouTube

Based on a Layer 1 sidechain

Currently close to 2000 active nodes

**Requires the use of a custodial wallet!**



[bit.ly/3k0aRN3](https://bit.ly/3k0aRN3)

# Theta Metachain

Based on a multichain architecture similar to Eth2, Polkadot, and Cosmos

Provide a decentralised video API

Requires the use of a token for storing data

Mainly targeted towards media, entertainment, and video streaming

Host the streaming platform alternative to Twitch named theta Live

Supported by big names of the tech incl. Google and NASA

Allow the creation and mint of ERC-721 NFTs w/ or w/o DRM





# Ocean Protocol

Offers a decentralised marketplace for data

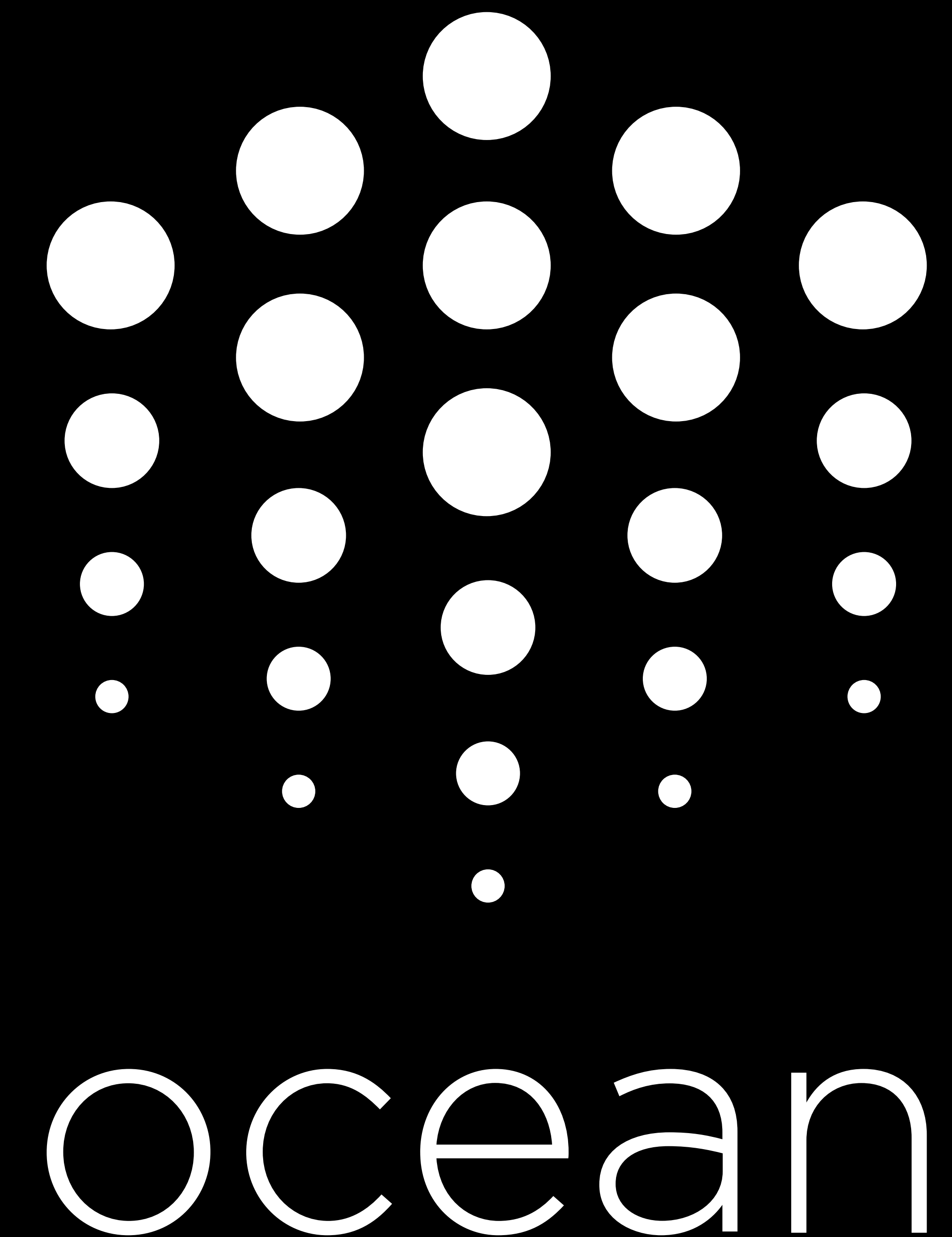
Decentralised solution optimised for dataset

Provide a compatibility layer to IPFS

Datasets can be monetised as NFT

Power Bosc Protocol, SingularityNET, and  
NuNet

Storage can be used for other applications than  
data science





## Contact us



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# References

What is the difference between IPFS and Ethereum Swarm <https://hackernoon.com/whats-the-difference-between-ipfs-and-ethereum-swarm>

Wikipedia - Domain Name System [https://en.wikipedia.org/wiki/Domain\\_Name\\_System](https://en.wikipedia.org/wiki/Domain_Name_System)

GitHub - Filecoin VM Architecture <https://github.com/filecoin-project/fvm-specs/blob/main/01-architecture.md>

Ethereum - Storage > Related tools <https://ethereum.org/en/developers/docs/storage/#related-tools>

Ethereum Swarm - Layer2 tooling <https://www.ethswarm.org/build>

"The book of Swarm" by Viktor Trón <https://docs.ethswarm.org/the-book-of-swarm.pdf>

How Handshake DNS works <https://www.youtube.com/watch?v=I7iqYhes5B4>



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