

# 以太坊三位一体-Swarm 介绍

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# Agenda

- 什么是 Swarm?
- Swarm 想要解决什么问题?
- Swarm 技术架构
- Swarm 最近进展
- Demo

# 什么是 Swarm?

Swarm 是分布式存储平台和内容分发服务，是为 DApp 开发者提供基础设施服务，提供消息传递、数据流、点对点记账、可变资源更新、支付通道和数据库服务。



swarm



# 以太坊世界计算机

| dimension | model        | project area  |
|-----------|--------------|---------------|
| time      | memory       | storage       |
| space     | messaging    | communication |
| symbolic  | manipulation | processing    |

# Web2(HTTP) -> Web3(Swarm)

- C/S 基于主机地址寻址
  - youtube.com/myvideo ->
  - bilibili.com/myvideo
- P2P 基于内容的寻址
  - hash(file) ->
  - 8f53b6ae62b660d7f2devp2p/libp2p
- DHT/Kademlia -> BitTorrent/Git ->
  - bitcoin/ethereum -> Sia/ Filecoin > Swarm
- 速度
  - DISC/DHT
  - *chunk* (4k) / CID(256k)
- 结构
  - manifest / IPLD
  - Merkle DAG



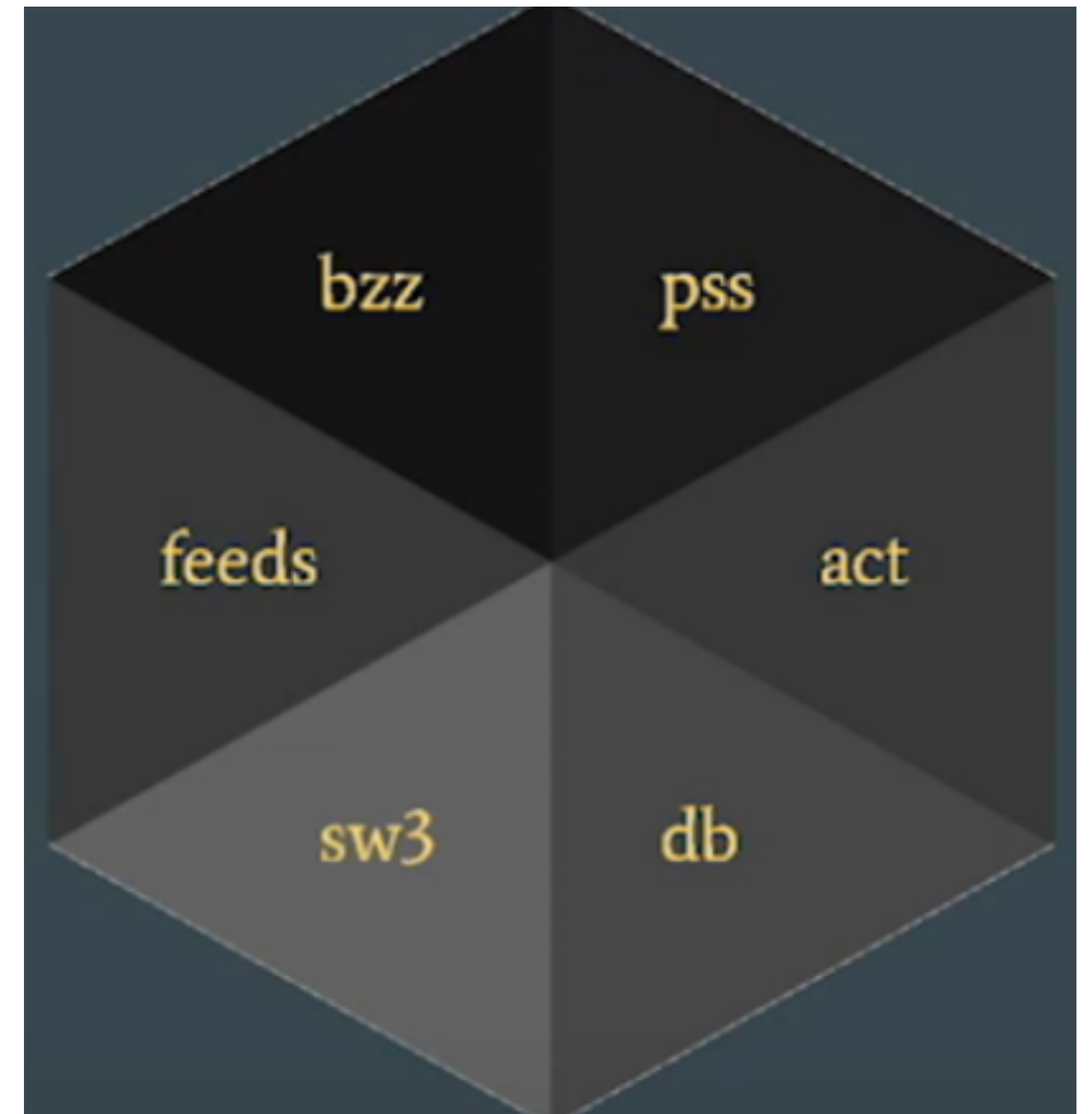
# Swarm Sope

- Hosting static content, Dapp
- Chat, group chat, Phone Call, conference call(audio/video)
- Email, newsletter
- Blog, status update, newsfeed
- Forums, Q&A, review platform
- Sharing, like, votes
- Indexes, mailbox

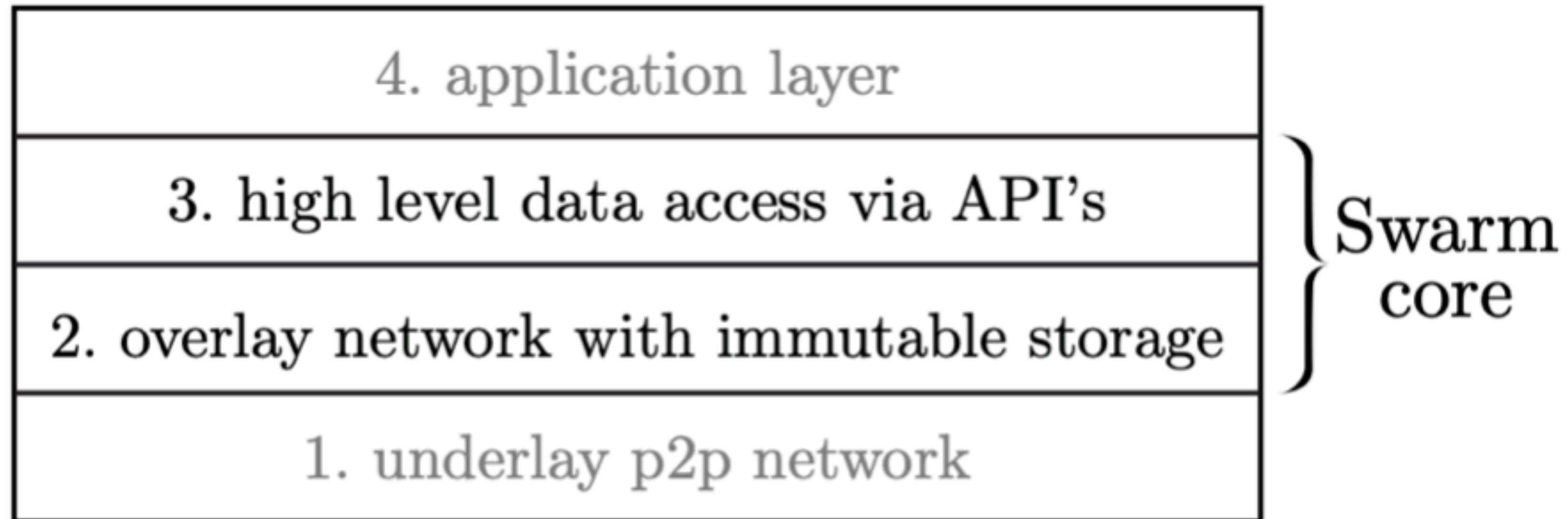


# Swarm 组件

- bzz 存储: Content address(chunk hash), 托管静态内容 (blog, website, Dapp)
- pss 消息: 实时聊天, 通知
- act 访问控制: 网站登录可见, 聊天记录
- db 数据结构: hash tree 表示 files, manifest 表示目录或者网站结构
- sw3 激励机制: 二层状态网络, 消息路由奖励
- feed: 电子邮件, newslatter, 评论更新, Feed 订阅, 喜欢, 投票



# Swarm Layer Design





# underlay p2p 网络

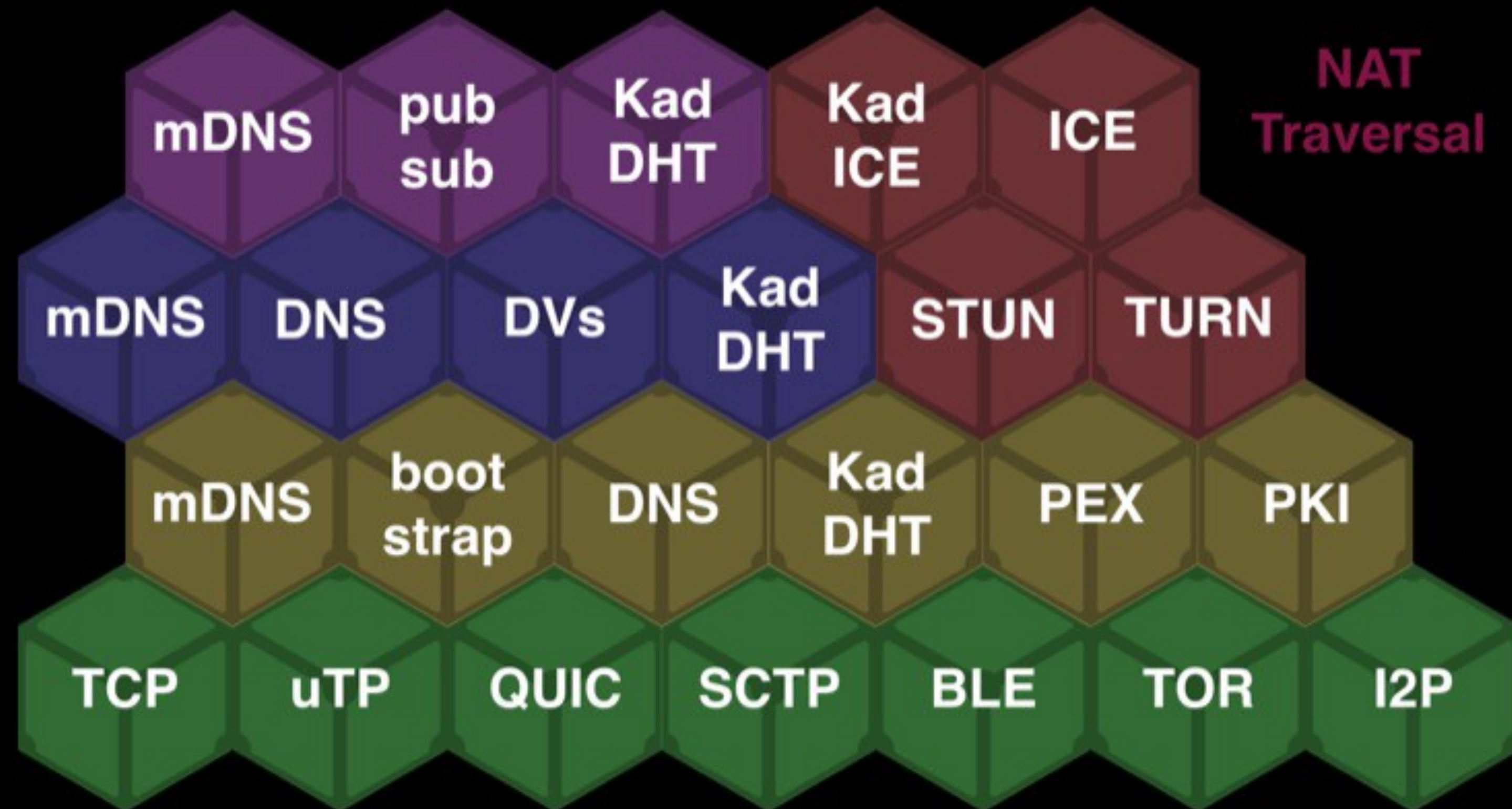
**libp2p** a collection of peer-to-peer protocols

Content Routing

Peer Routing

Discovery

Transports



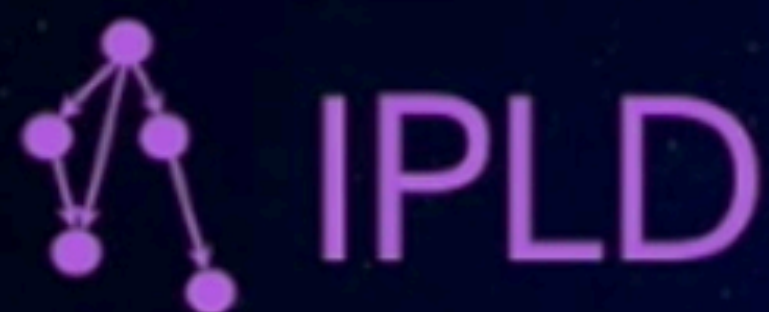


# The IPFS Stack

applications

Using the Data

IPNS



naming

merkledag

Defining the Data

exchange

libp2p

routing

network

Moving the Data



**applications**



**web**

**naming**



**SFS**

**merkledag**



**git**

**exchange**



**BitTorrent®**

**routing**



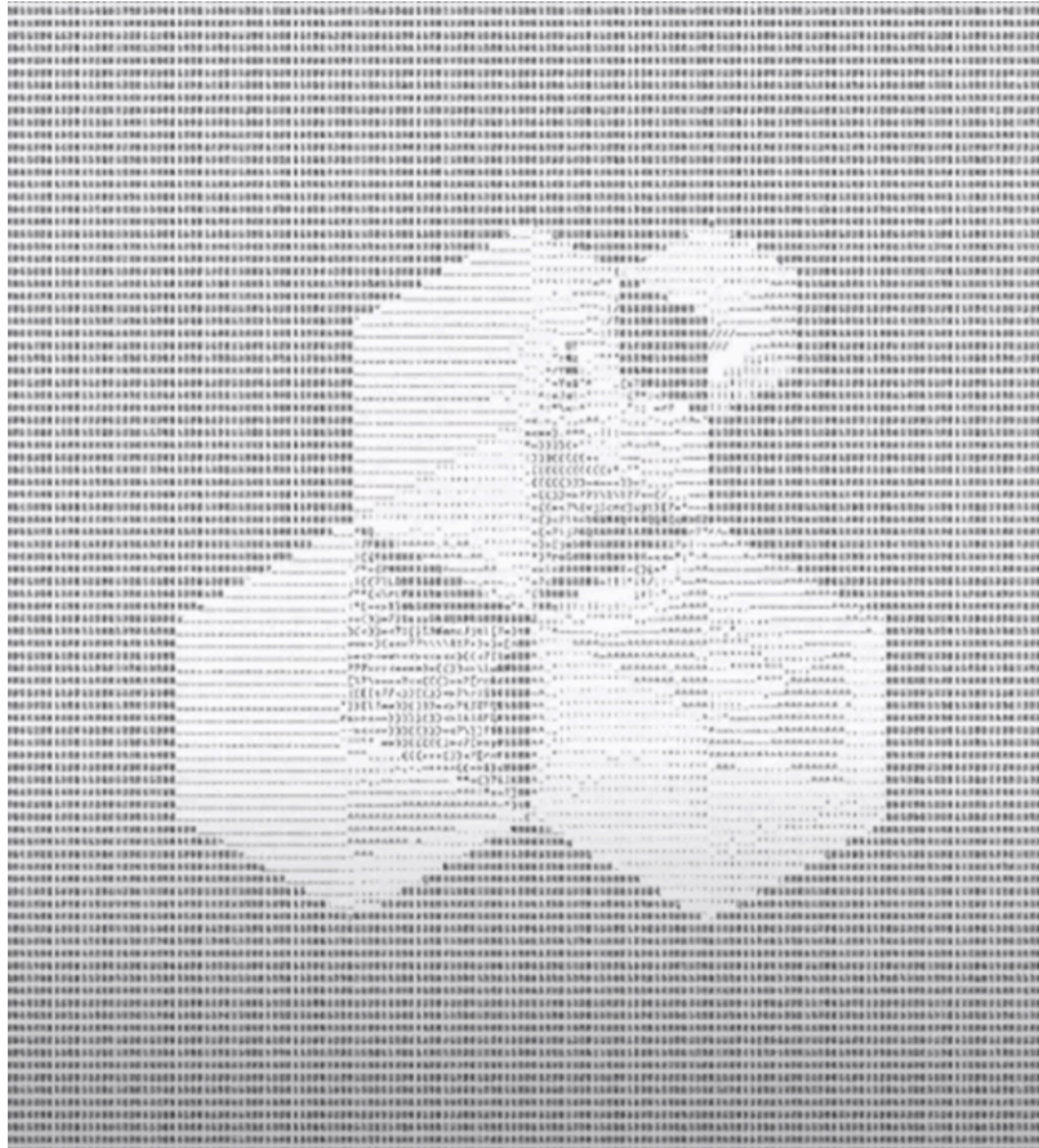
**DHT**

**network**



# Swarm BZZ Token

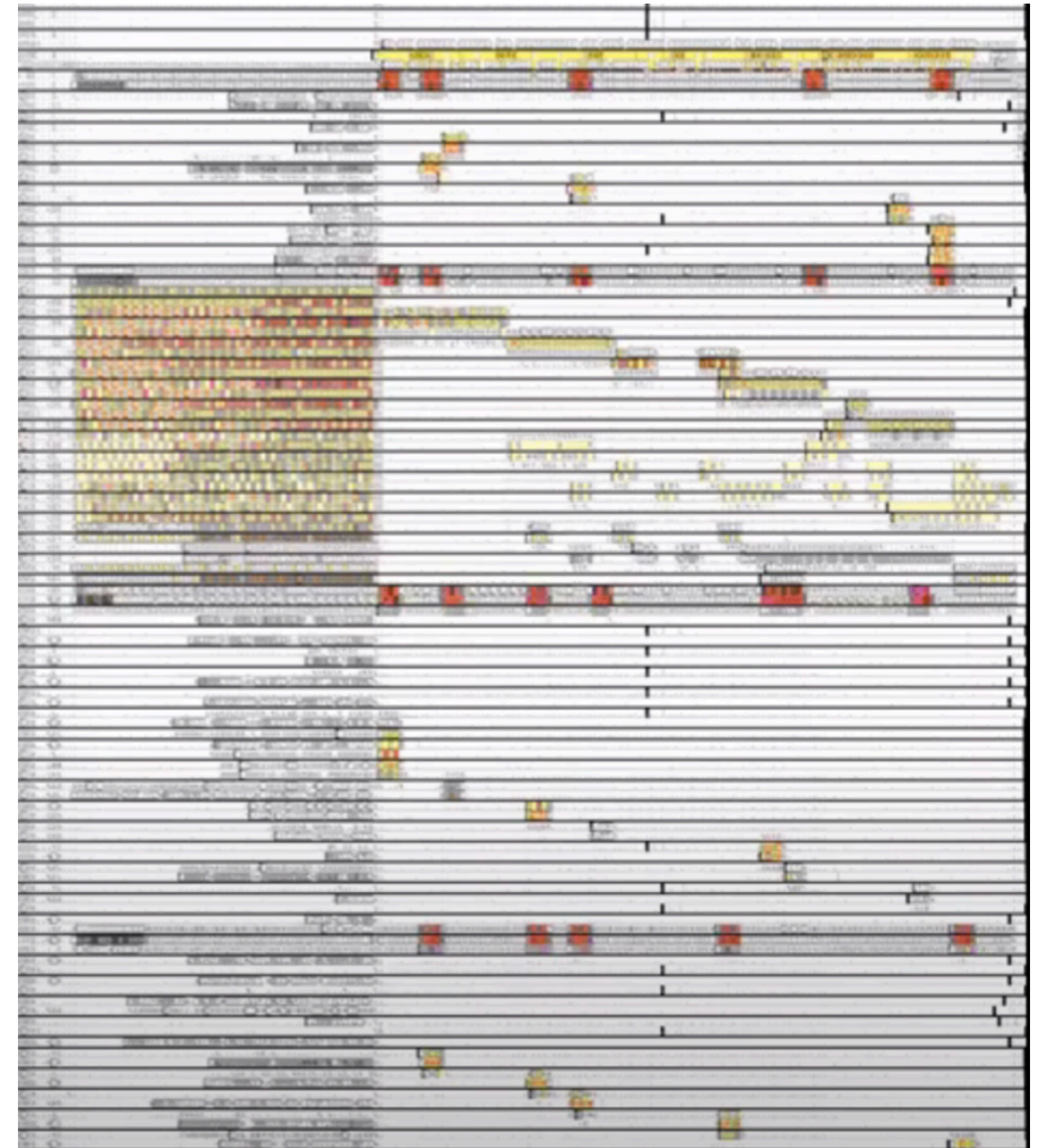
- BZZ 用于支付 Swarm 中存款和付款
- ERC-20 代币，未来也计划部署到 RSK, ETC
- 与 ETH 众筹的方式一样，阶梯拍卖，越来越便宜
- Further issuance Only against Hard deposits in Dai at Market Price
- Liquidity Provided by a bonding curve trading platform





# Swarm 时间表

- 5月Book of Swarm 新的白皮书
- 6月 Swarm Alpha 发布 bee client
- 9月Swarm Beta开启挖矿奖励
- 10月 Swarm RC1.0



# Bee Demo