



# Subnet

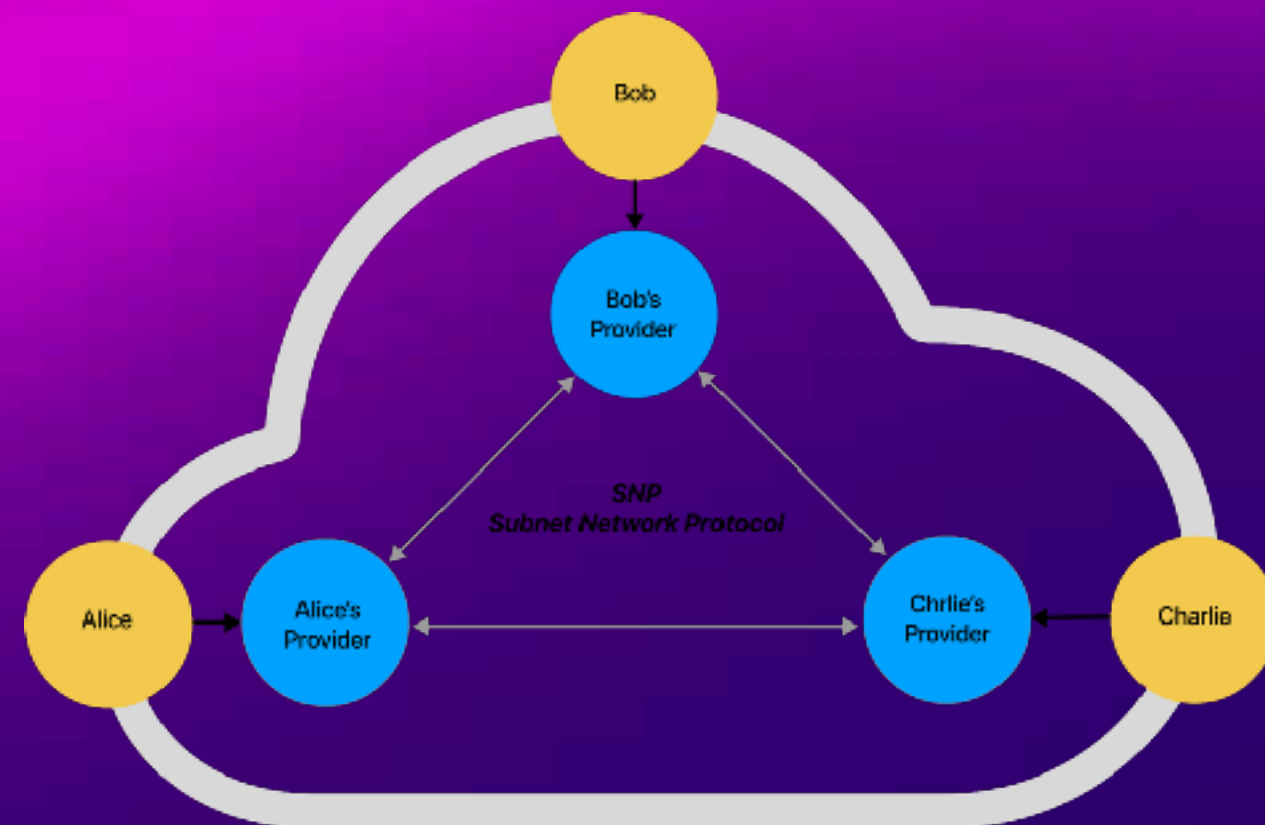


A user-centric  
digital communications platform

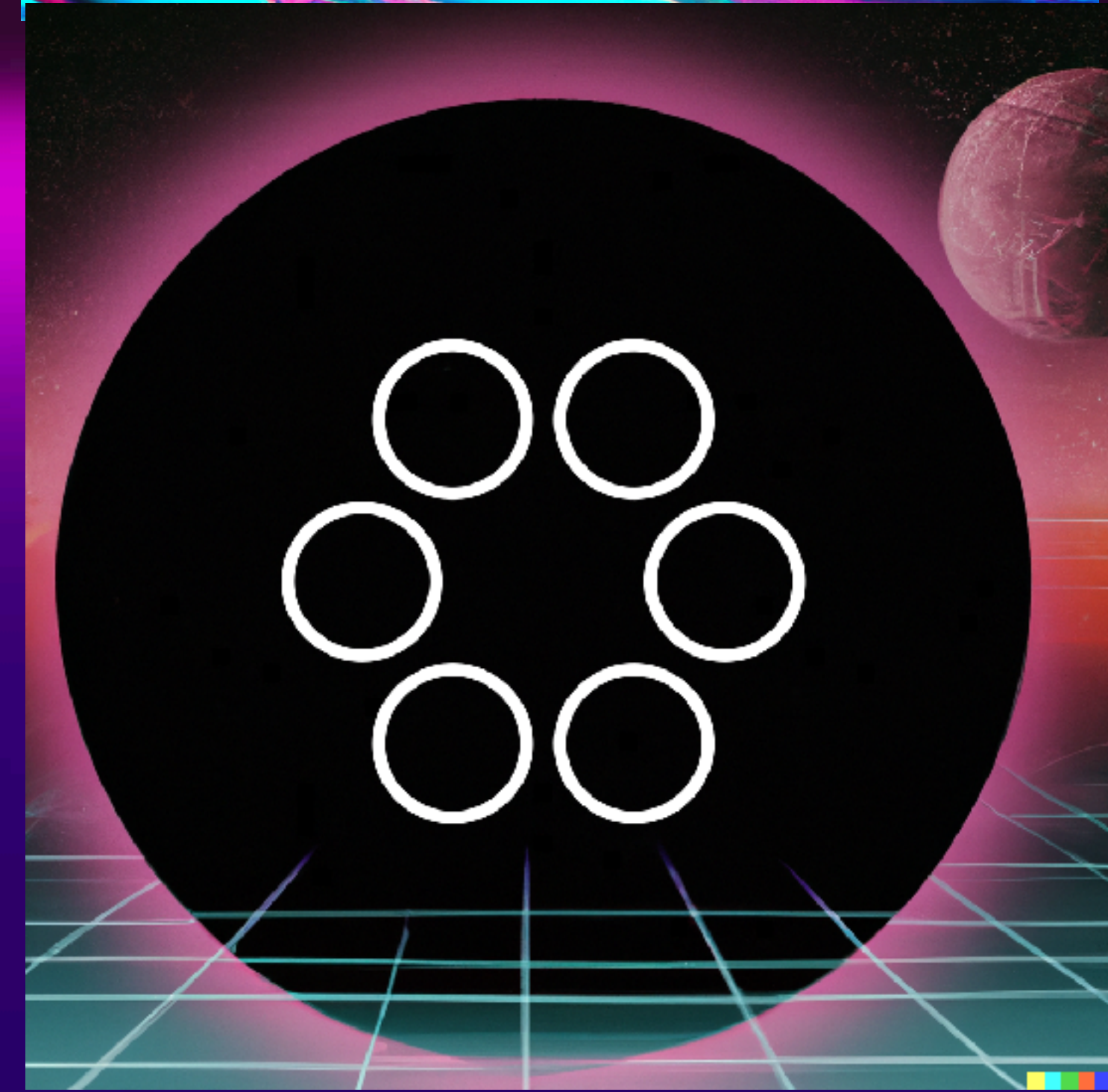


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# Subnet Mission

Build a **digital communicator**  
over a **decentralized network**  
to provide a viable alternative  
to **web 2.0 social networks**.

$$\text{Subnet} = \frac{\text{Telegram}^2 + \text{Twitter}^2}{\text{Federated Service Providers}} + \text{Instant Crypto Payments}$$

# Social Media is a poor product

- A bad organizational model - corporations with too much power over platform and rules of conduct with mandate to make money for stock holders above everything else.
- Huge spam and fake accounts problem.
- Terrible for privacy as business model requires complete access to users data and meta-data in order to optimize engagement and serve real users - ad buying corporations.
- Lack of alternative for enlighten humans - there is no serious platform that lets people be free as they can be, and personally identifiable as they want to be and to not become products for advertisers.
- No great tools for building meaningful communities due to emphasis on public content and engagement above all.





# Digital Communicators by social media companies are poor products

- Used mostly as a funnel to create more public content and to steer people to engagement-based content. e.g. Messenger.
- Used as a freebie provided to social media users and not as a main product. e.g. Messenger.
- Terrible privacy even with 'end-to-end-encrypted' channels – use data for engagement enhancing main products – e.g. Twitter messaging, WhatsApp, Messenger.
- Have an unsustainable business model – e.g. Telegram.
- Have arbitrary power to de-platform anyone. Service providers should not be the truth police.
- Make it very hard to switch services and to move social graph between services.
- Do not let anonymous expression and self-moderating groups due to their corporate structure and ability to censor any person or group.
- No way to seamlessly pay with crypto in messages between any two parties – Telegram and Meta both tried and failed.





# Why now?

Convergence of mega techno-cultural trends:

- **Blockchains** – Recent development in permissionless open databases a.k.a. blockchains enables Subnet.
- **Web3** – Recent shift in many smart people’s mindset due to the state of social networks in the post-trump 2022 western world. The dangers of closed huge web2 platforms to young people, democracies and society is becoming more apparent.
- **Market** – With 3B out of 4B adults already online, even a small percentage is a big business opportunity. Previously, alternative business model to social networks were thought of too niche to fund.
- Telegram and Meta have tried and failed to decentralize social media by taking a centralized company, brand and technology and try to add a coin to it.
- **Crypto** – The world is hungry for web3/crypto products that work and deliver on the promise of crypto that so far failed to be delivered by entrepreneurs.





# Market size

## Addressable market

5B young-adult or older humans on earth. It is hard to imagine someone who'll manage to function in society without digit communications or groupware.

## Serviceable available market

Digital comms and groupware ~4B MAUs

*WhatsApp* - 2B, *Telegram* - 700M, *Twitter* - 217M, *Discord* - 200M

## Serviceable obtainable market

Anyone who'd pay a small monthly crypto fee instead of viewing ads for social networking and digital communications services.

1 in 10 in available ~**400M people**.

## Service Providers

Any org who buys into the project's vision and product, and wants to be in the business of facilitating web3 communication - Social DAOs, Web3 DAOs, Crypto VCs treasuries, legacy service providers, proxy services companies.

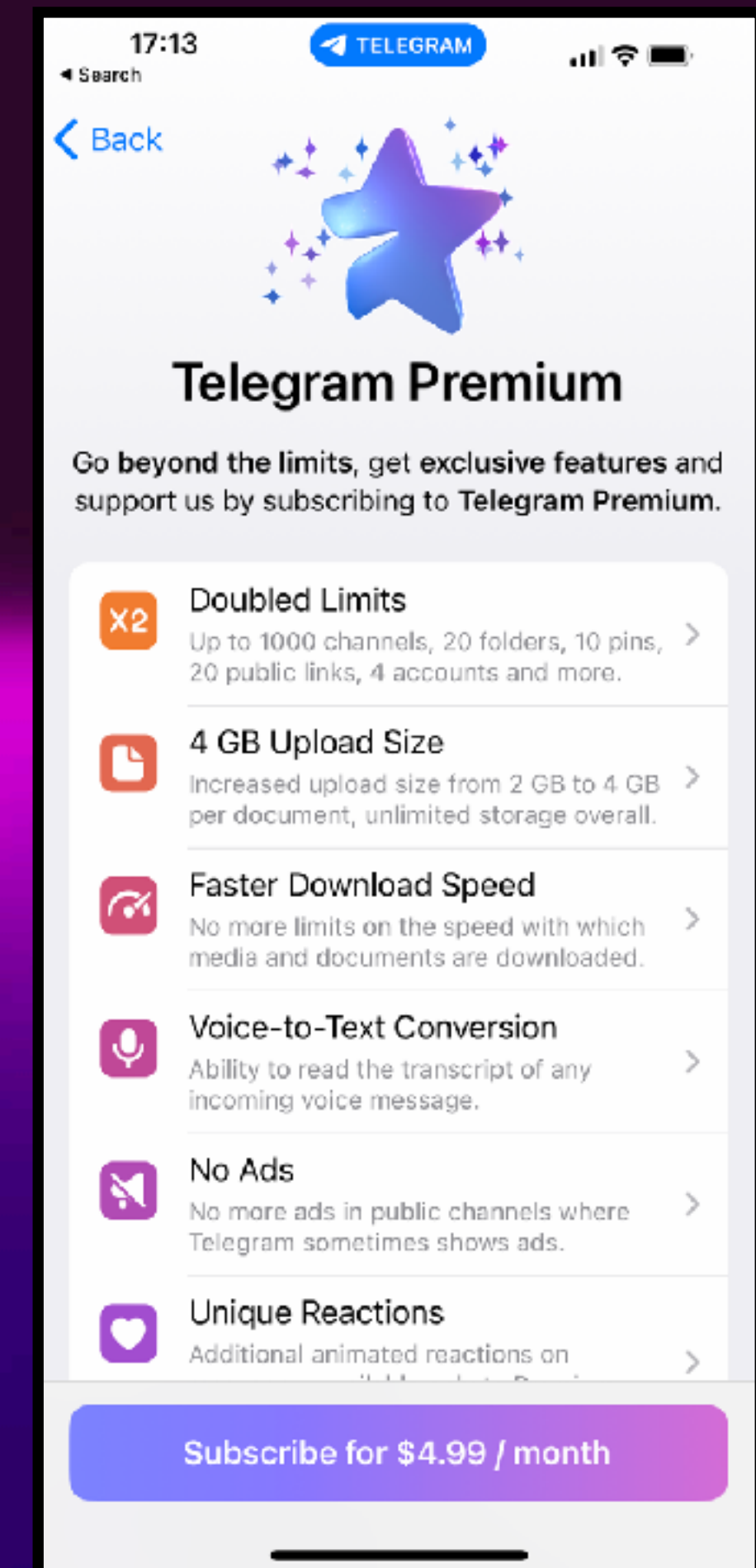




# Competition

**Nobody is trying to solve the fundamental problem in a good way considering modern usage patterns.** People use mobile clients with **limited-connectivity** and there needs to be **incentivized protocols between a federation of service providers to build an incentive-compatible network.**

- **TBD** – Jack Dorsey’s web3 startup. Ideas from the eth community. Focus on building block and not one product yet. Not a coherent product offering yet.
- **Status.im** – Wrong architecture. Mobile clients are peers in a p2p network. Hard to see how they crack the UX challenges. **\$99M VC funding over 5 rounds.**
- **Telegram** – Identity fundamentally tied to a mobile phone number – a highly personally-identifiable id. Telegram Inc knows the personal identity of all members. No sustainable business model. **\$300 million self-funding, \$1B in convertible 5-years debt raise – some went to pay TON investors – must generate revenue from ads or premium accounts but wants to be free forever.** 500M users. ~100B messages a day. **\$1.5B of ICO funds spent on Telegram ops.** Introduced premium subscriptions web2.0 style to cover costs of large files storage and transfer – no free lunch admission.
- **Signal** – no sustainable business model. UX too hard for normies. **Funded by good will and charity of billionaires.**
- **Nym** (A web3 Unicorn)





# A new kind of social network

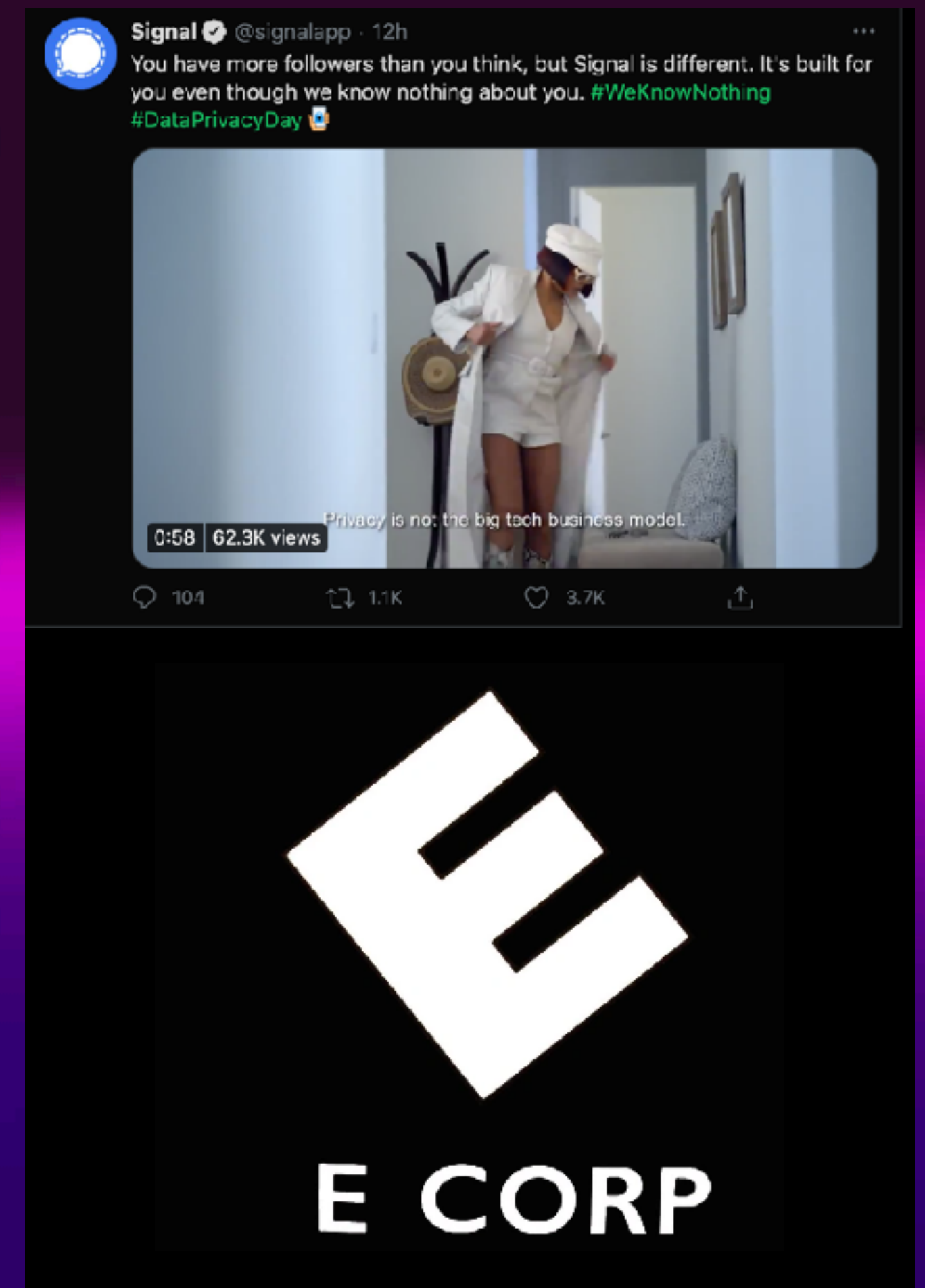
- Shouldn't moderate content.
- Should focus on providing **great tools for groups and individuals to share information** between them and to **facilitate free speech**.
- Should be a conduit for any type of information - opinions, fake facts, true facts - it is **up to people to judge what these are**, not the network.
- **Service providers should not have access to users data and metadata.**
- There shouldn't be a **single entity that hosts all content and user accounts.**
- Group creators should moderate group content in anyway the see fit.
- **People are responsible to moderate sources** they get information from based on their own judgement and self-sovereignty.





# No more "WE" !

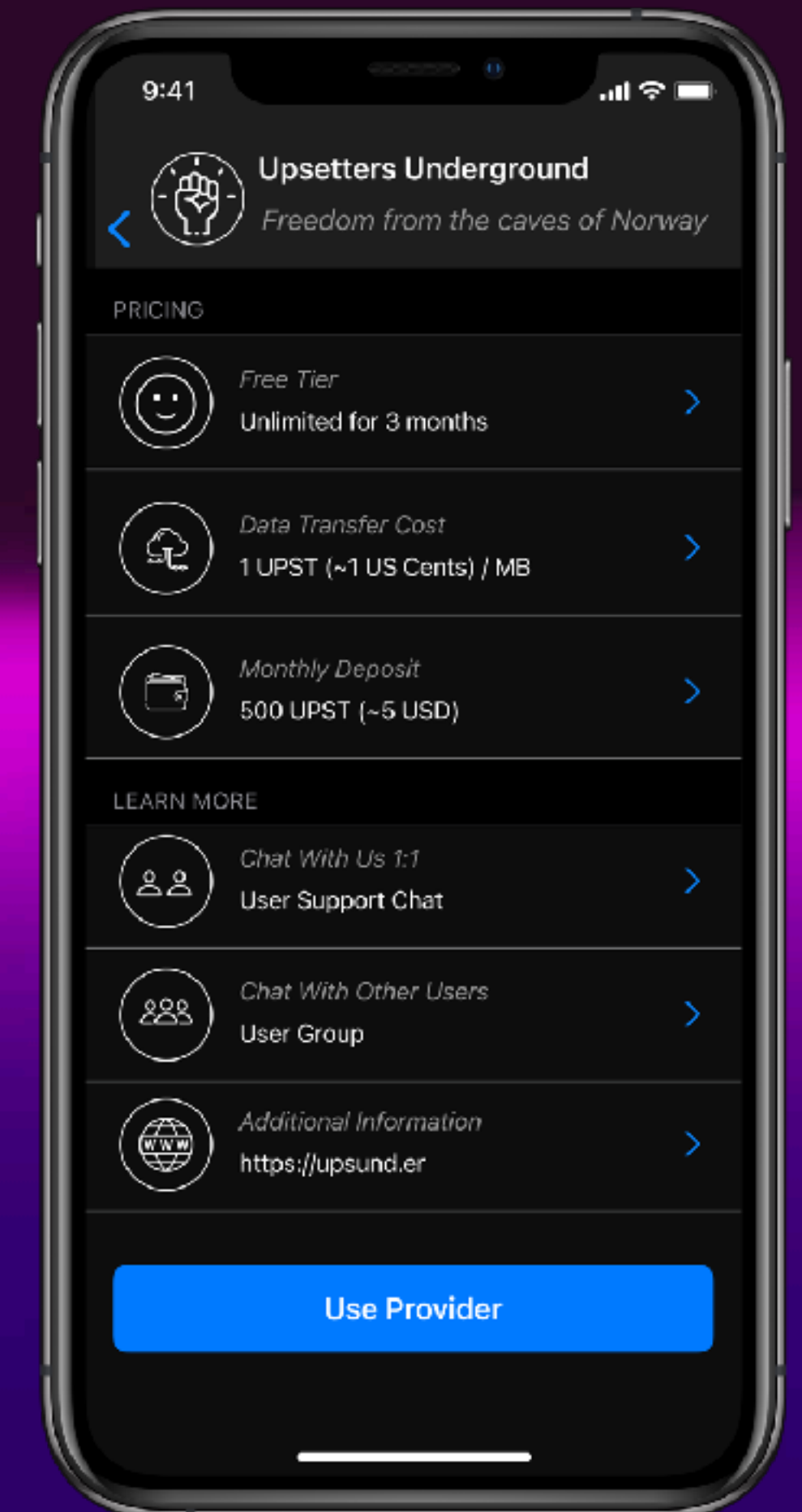
- Our vision is to **remove the corporation from the platform to eliminate the platform risk.**
- Removing is easy, replacing with something better is hard...
- We replace it with **thousands of permissionless entities** from all over the world, that **cooperate in a federated way** to provide the service for users based on a **common neutral network protocol** and a **common core cryptocurrency.**
- This is the next step to move **beyond Signal** - still one org with owned server farms.





# An unstoppable network for uncensored communications

- There is **no company that may censor speech on the platform.**
- There is **no single cloud infrastructure provider that may shut down the network.**
- There is **no company that can shut down the service** or parts of it at any time, or **arbitrarily change privacy and terms of service** at any time.
- There are **no advertisers interests** which may reduce the user experience and **encourage engagement at all costs.**
- The **service is resistant** and works as long as there are at least several entities from anywhere in the world that implement the Subnet protocol and provide service for users.
- By design, a **user's service provider can be replaced at any time** if it goes offline or decides to stop providing services. Doing so happens without disrupting platform applications and user data.





# Upsetter - a mobile digital communicator

Unique, compelling and integrated feature-set

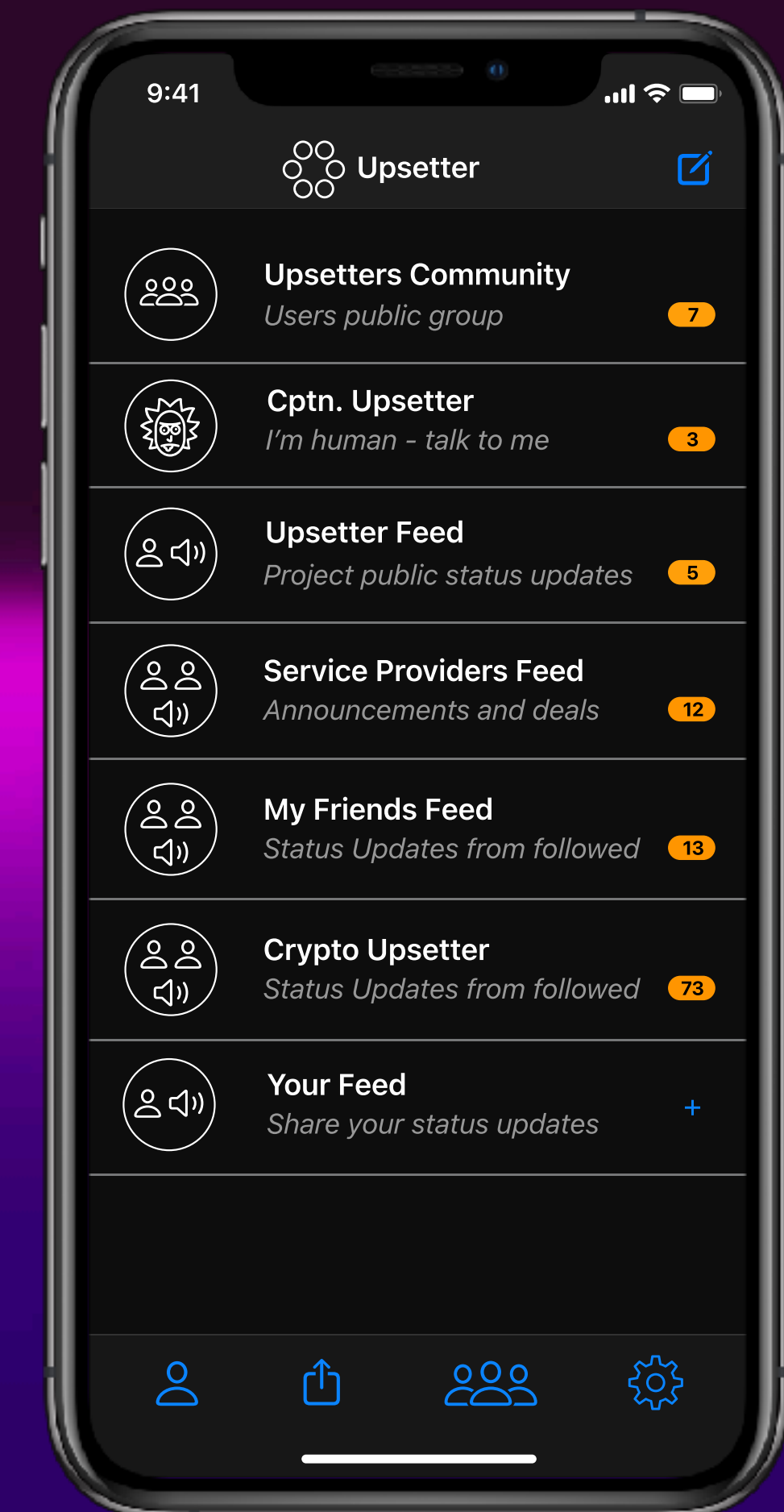
## 5 core features

1. **Instant messaging** - 1:1 *Signal-like*
2. **Groups** - n:n. *Telegram-like*
3. **Status Updates** - 1:n *Twitter-like*
4. **Multiple Sources Feed** - n:1 *Twitter-lists-like*
5. **Premium Content** - blog post, image, video, music, *Onlyfans-like*

## Additional features

- **Newsletter** - Premium status updates - *substack like*
- **Premium Groups** - Monthly subscription communities
- **Limited-Edition Premium Content** - art and fans items - *NFT-like*
- **Proofs of Action or Affiliation** - Certification
- **Digital Identity** - User-generated based on proofs of ownership and affiliation
- **User-to-user** instant payment and premium purchases - *Paypall like*

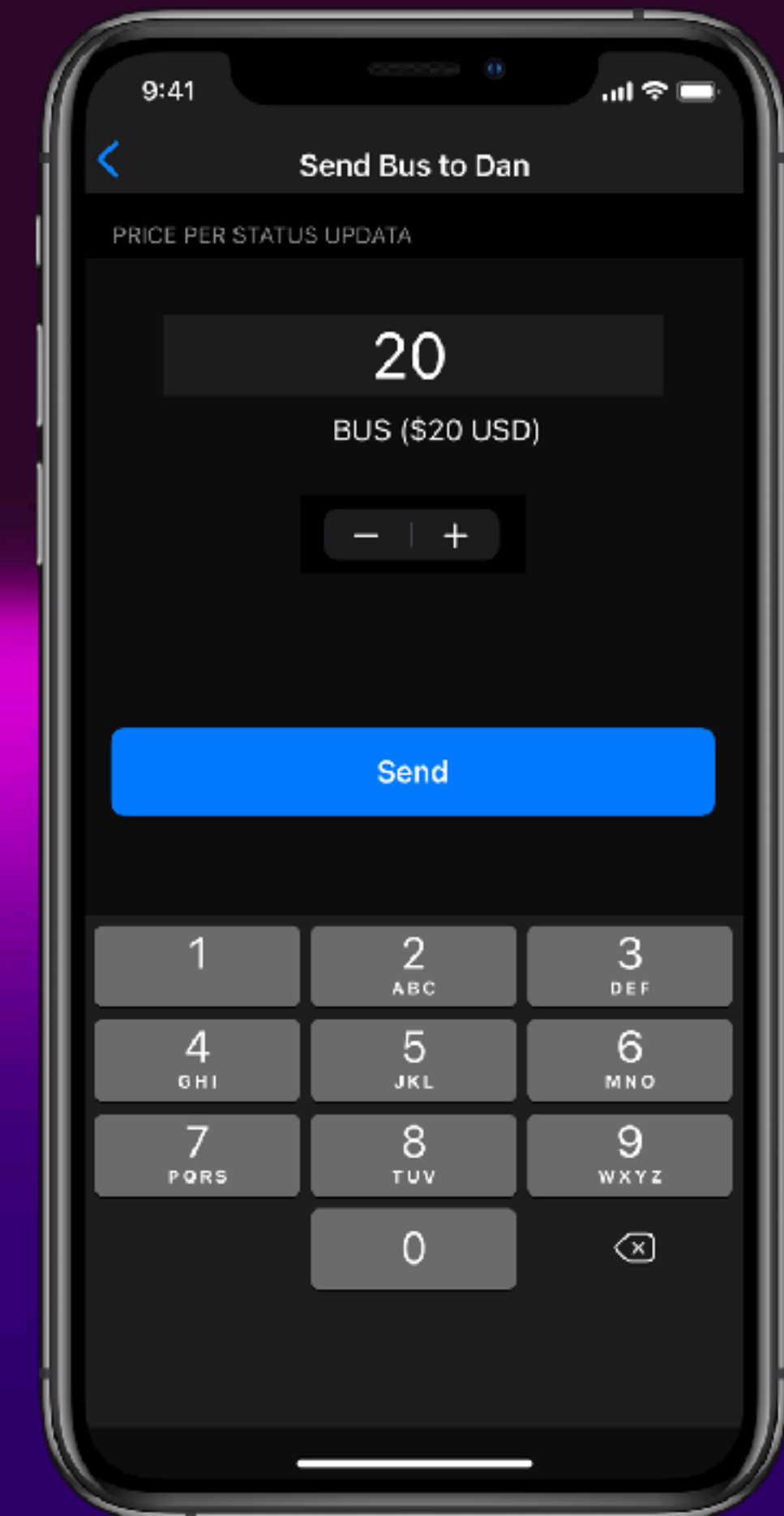
**Future network services:** decentralized storage, proxy Internet servers, video transcoding services, name servers, multi-party real-time video chat.





# Crypto micro payments

- Users can pay others on the network directly from any Upsetter feature.
- Works from nano to big amount payments.
- The holy-grail of cryptocurrency **as means of payment**: scalable, fast, cheap, mobile and secure.
- Nobody nailed mobile crypto payments yet.
- Doesn't require unsound moon-math L2 patches.
- Enabled by-design by Subnet's unique blockchain, network and ledger design.
- A -> SA -> Subnet Blockchain -> SB -> B [todo: discuss]





# Upsetter demo

A Subnet mobile client





# Subnet messaging demo

```

* <client> group-message <group> <text>
* <client> group-message-reply <group> <reply_to> <text>
* <client> group-leave <group>
* <client> create-item <price> <name> <text>
* <client> buy-item <seller> <item-id> <price>
* <client> list-items <seller>
* bc-service list-clients
* bc-service list-providers
* bc-service add-client <client>
* bc-service add-provider <provider>

Current dir: /Users/avive/dev/subnet-core-cmdev2/target/debug
* A message B hi bob, this is Alice!
SPA got message response from component processing the incoming message
SPB got message response from component processing the incoming message
* B 📡 incoming text message from 0x6f09..69d3: hi bob, this is Alice! message id: 5457262562809274698 reply to:
B message A hi alice, this is bob
SPA got message response from component processing the incoming message
SPB got message response from component processing the incoming message
SPA got message response from component processing the incoming message
* A 📡 incoming text message from 0xf3f6..59b7: hi alice, this is bob message id: 17393110380251525393 reply to:
A status-create a-status-updates
↓ created channel a-status-updates
* B status-subscribe a-status-updates
SPA got message response from component processing the incoming message
SPB got message response from component processing the incoming message
SPA got message response from component processing the incoming message
↓ subscribed to channel a-status-updates
* SPB got message response from component processing the incoming message
SPB got message response from component processing the incoming message
SPA got message response from component processing the incoming message
B Got channel subscription confirmation. Channel id: 0x5dfa..f73f. Message: Welcome aboard!
B subscribed to channel
C status-subscribe a-status-updates
SPC got message response from component processing the incoming message
SPA got message response from component processing the incoming message
↓ subscribed to channel a-status-updates
* SPC got message response from component processing the incoming message
SPA got message response from component processing the incoming message
SPC got message response from component processing the incoming message
C Got channel subscription confirmation. Channel id: 0x5dfa..f73f. Message: Welcome aboard!
C subscribed to channel
A status a-status-updates this is my first status update!
SPB got message response from component processing the incoming message
SPA got message response from component processing the incoming message
SPB got message response from component processing the incoming message
B 📡 incoming status update from, 0x6f09..69d3: this is my first status update!. Reply to: B. Id: 158009752978974/
23
SPC got message response from component processing the incoming message
SPA got message response from component processing the incoming message
* SPC got message response from component processing the incoming message
C 📡 incoming status update from, 0x6f09..69d3: this is my first status update!. Reply to: B. Id: 158009752978974/
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|

```

<https://asciinema.org/a/W51QFvKxyFq64kOQJh2gVRqVL>



# Subnet POC platform docs

<https://subnet.wtf>



# 3 Years Product Plan

## Features

- Service Providers cross-platform p2p nodes.
- Subnet protocol 0.1 implementation.
- Core \$SUB, Sub stable coin on a Subnet-optimized blockchain.
- iOS App and a REPL.
- Telegram and Twitter core feature set: status feeds, groups, chat and file sharing.

## Release Plan

- Iterative releases: POC, ALPHA, BETA.



# Subnet solves the spam problem

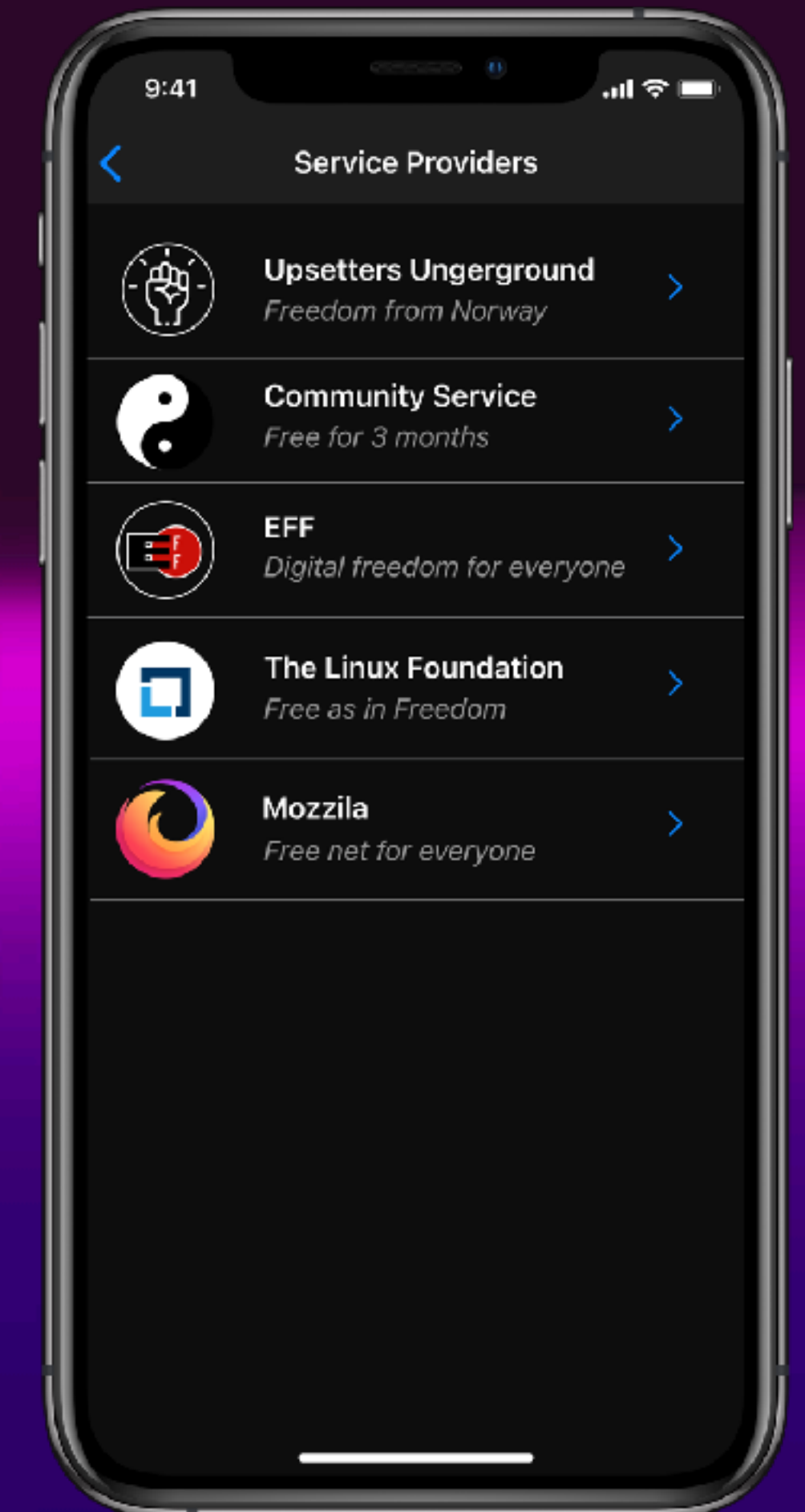
- Centralized social media platforms spam problem is an open hard problem because most content is public to increase engagement.
- Twitter removes over one million spam account each day (Source: Twitter 8/22).
- Concern is that about >5% of Twitter accounts are fake accounts.
- World's richest man dropped the Twitter acquisition over the fake accounts problem.
- Musk said that one of his biggest priorities after acquiring Twitter is to "defeat the spam bots or die trying."
- Subnet business model and product solve the social media spam problem by making it costly to use fake accounts.
- Users need to deposit a monthly spending budget with service providers to receive services.
- There's a cost to send each message over the network. Costly to run a botnet that need to send high-volume of messages





# Where is the value?

- The value in web2 and mobile is in all in the **aggregation and bundling of data and functionality** by one company - Google, Apple, AWS.
- The value in web3 will be in the **aggregation of decentralized services companies.**
- The data and apis are still going to be cloud-hosted by cloud providers, but the data and server ownership are going to be decentralized. Web3 networks are going to be super-imposed over the existing internet protocols.





# Business model

## No free lunch taken a step further...

- Telegram moves to offer **premium paid users subscriptions** to **cover hosting and bandwidth costs** associated with user experience expected by many users.
- This is a web2 temporary hack.
- The real solution is a **platform that can handle arbitrary large files where nano-payments per byte transferred or stored, paid by user to service provider in a competitive market settings.**
- This way, costs are close to optimal, and the platform can scale nicely without resorting to web2 business models.



### Durov's Channel



Since the day Telegram was launched almost 9 years ago, we've been giving our users more features and resources than any other messaging app. A free app as powerful as Telegram was revolutionary in 2013 and is still unprecedented in 2022. To this day, our limits on chats, media and file uploads are unrivaled.

And yet, many have been asking us to raise the current limits even further, so we looked into ways to let you go beyond what is already crazy. The problem here is that if we were to remove all limits for everyone, our server and traffic costs would have become unmanageable, so the party would be unfortunately over for everyone.

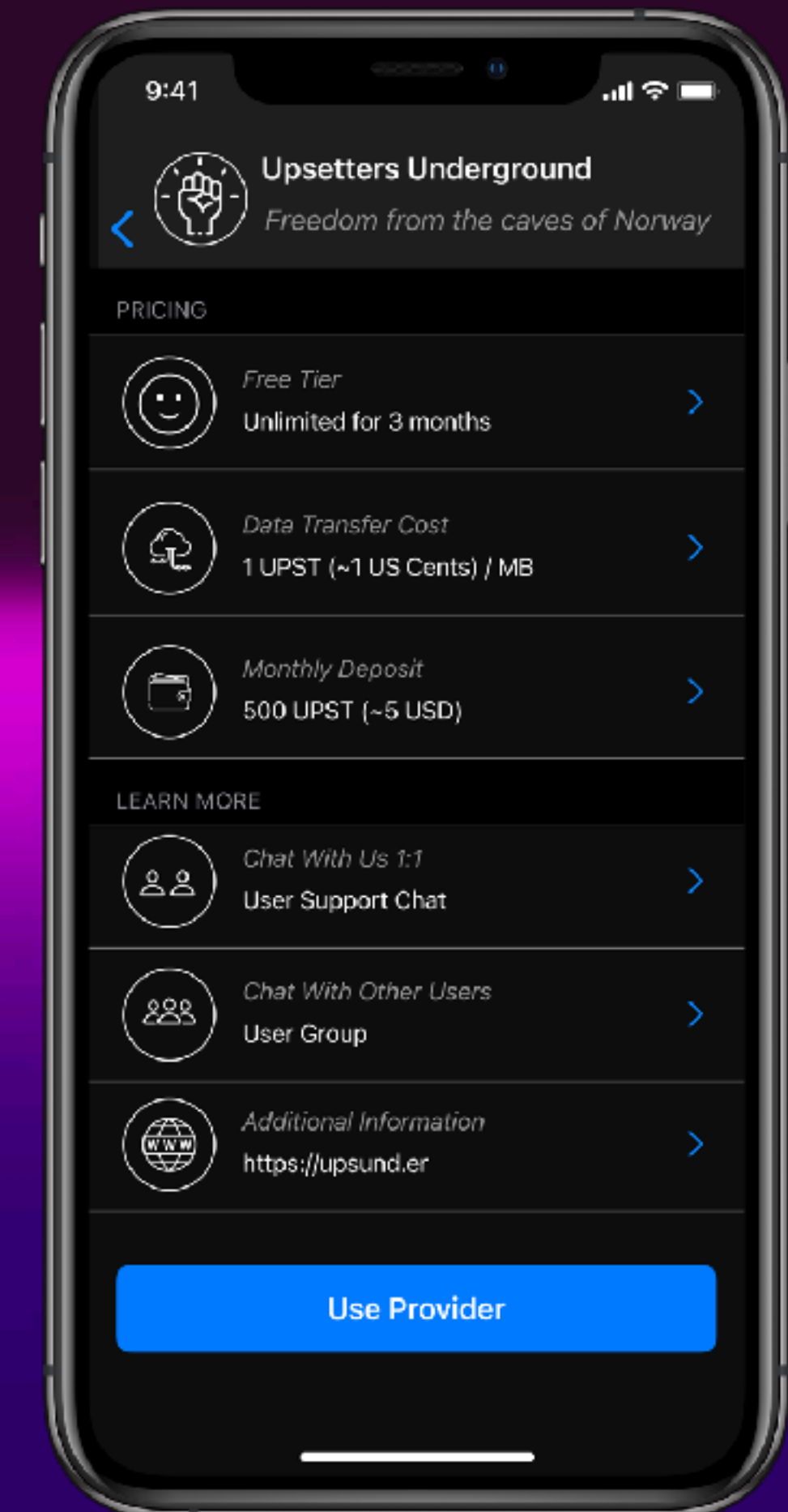
After giving it some thought, we realized that the only way to let our most demanding fans get more while keeping our existing features free is to make those raised limits a paid option. That's why this month we will introduce Telegram Premium, a subscription plan that allows anyone to acquire additional features, speed and resources. It will also allow users to support Telegram and join the club that receives new features first.



# Business model

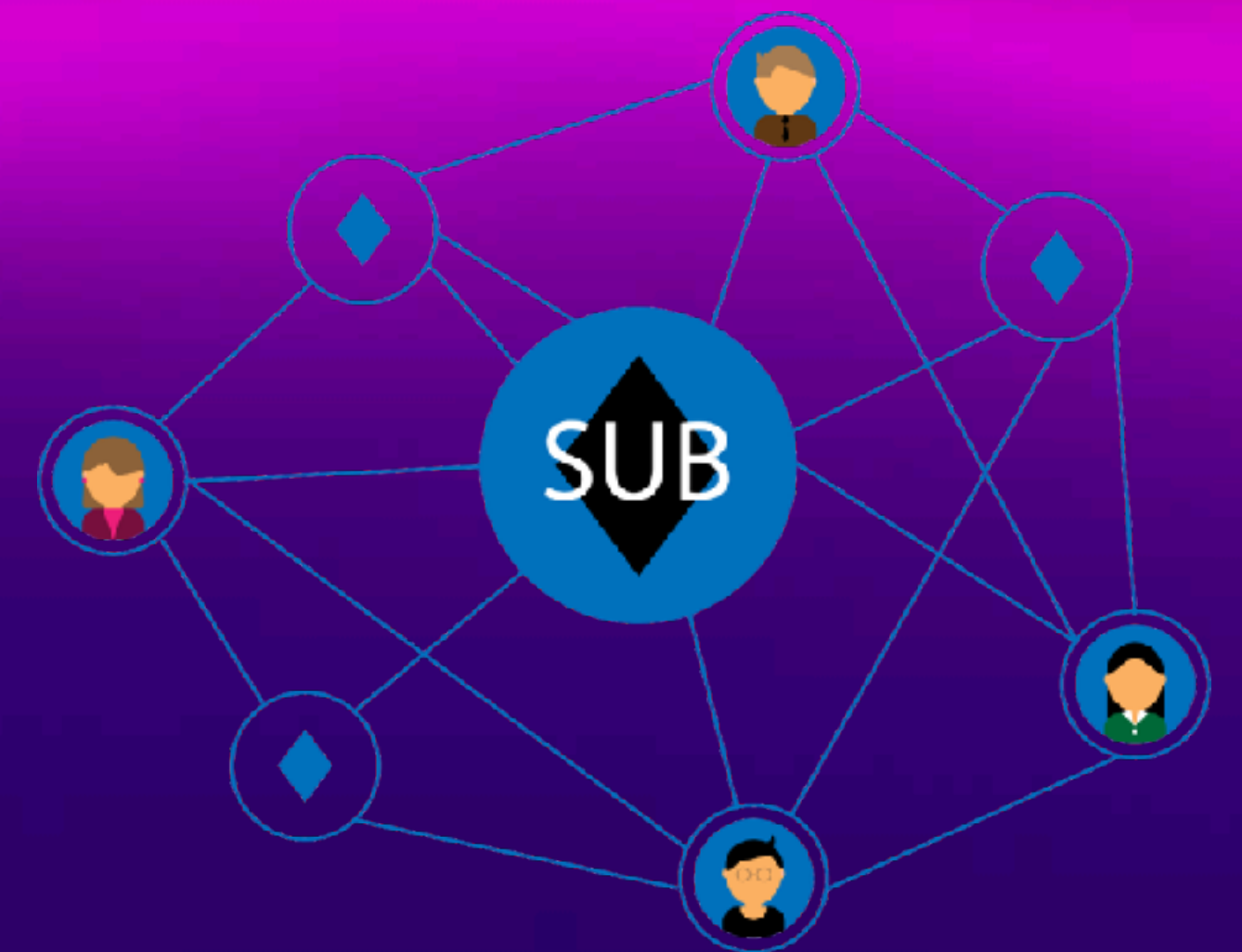
## Optimal pricing for ad-free digital communications

- **There's no free lunch.** We all still paying the price of using 'free' Web 2.0 and mobile native services - **more and more people are starting to realize that this is too pricy...**
- **Service providers have operational costs and should be profitable not charitable.**
- We need to design a platform which **dynamically and automatically find the optimal price of digital communications** by considering both **users** and **service providers** in a global, competitive open-market.
- Modern **crypto, p2p, cryptocurrency** and **blockchain** technologies enable this new model at scale but they need to be combined in a novel way and carefully design to support this new business model.
- **A common network crypto coin** is needed to **align interests of users, service providers, developers and investors.**
- **The Subnet software and network protocol is 100% open source** but **commercial uses of Subnet software will require a license** from the Subnet co.



# Business model

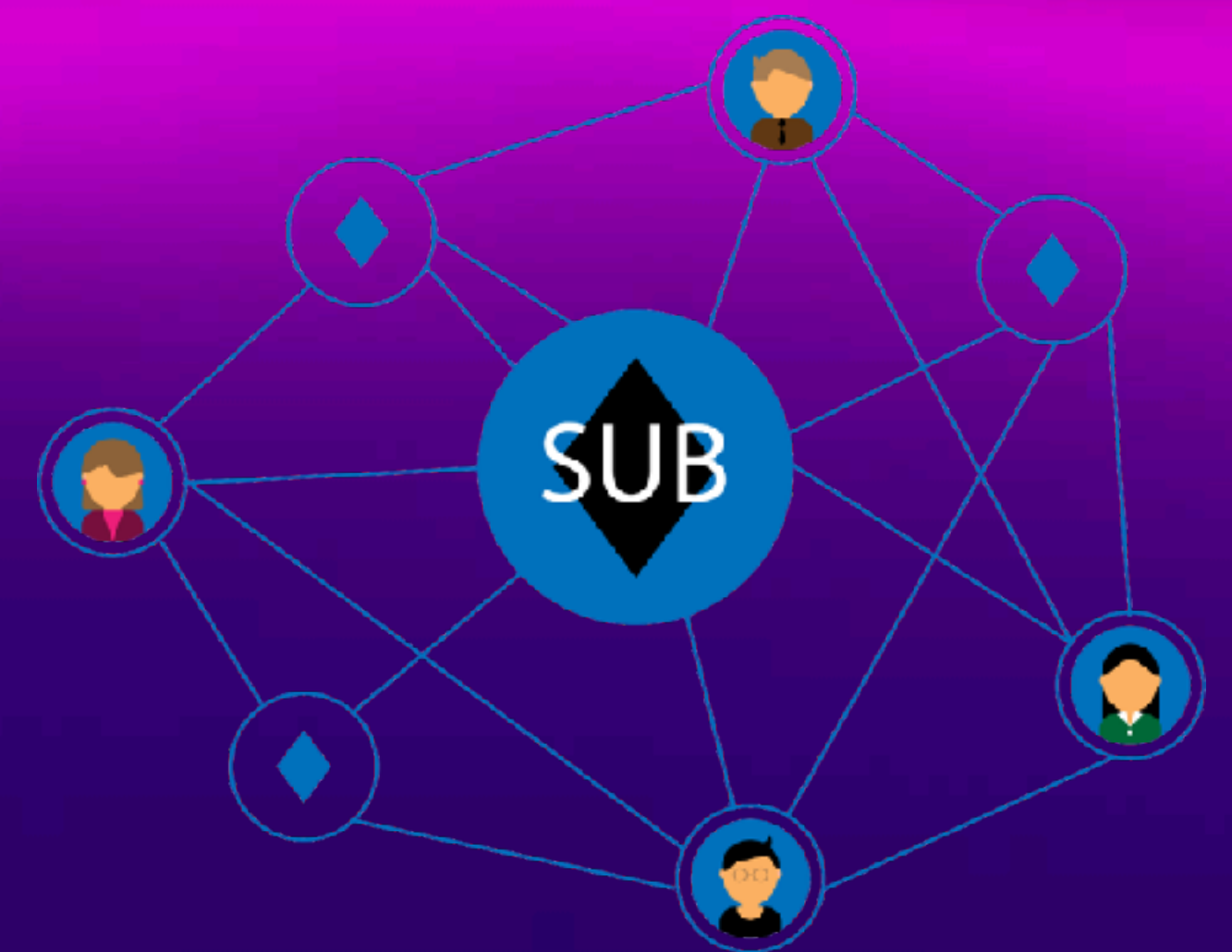
- **Subnet is developed and will be launched by a private development co.** The company will hire the dev team and build the platform.
- The Subnet coin is a **layer-1 cryptocurrency** and not a derived network token with a fixed coin supply 30% allocated to cover r&d and marketing costs and 70% mined by service providers over a 10-years period. **Service providers are miners.**
- **The Subnet coin (\$SUB)** is designed to **align all project stakeholders interests** and to benefit them. **Investors, services providers, software builders and early-adopters.**
- Nano-payments on the platform use a **collateralized stable coin** issued over the native Subnet blockchain.
- **Subnet software is 100% open source.** The value is in the brand and **the network effects of service providers, devs and users around the platform.** The company does not and **will own any proprietary IP** or have any special rights over the network once launched. **Subnet software will not be free for anyone to create a commercial Subnet service.**
- Accredited investors get equity in the private development company and rights to purchase the Subnet coin. They can also generate revenue from yield on collateralizing the Subnet stable coin.





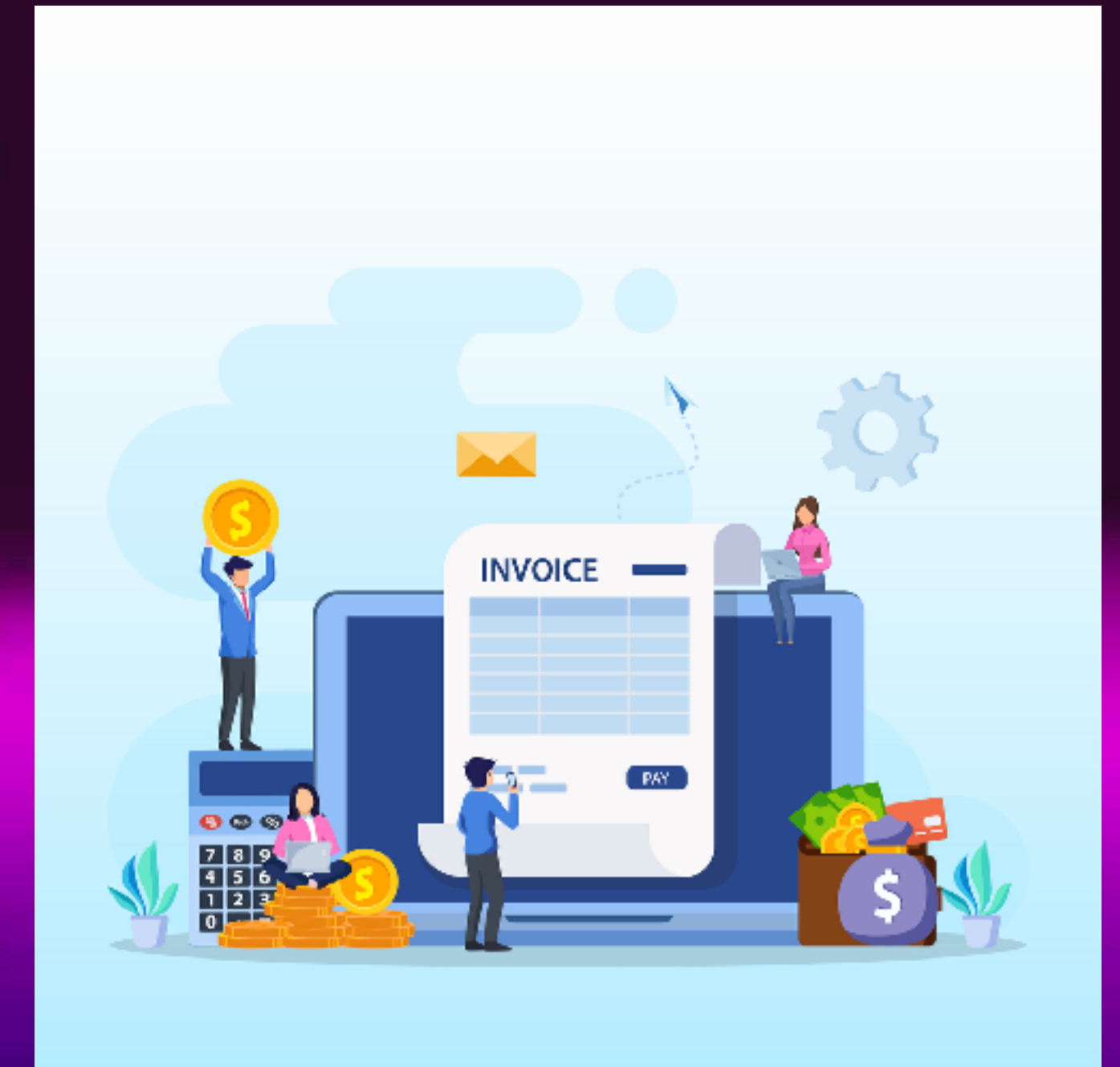
# Revenue and value generation

- Subnet goal is to establish \$SSC (Sbunet stable coins) and \$SUB (Subnet core cryptocurrency) as the primer currencies for distributed social media.
- Subnet co mints 100% of \$SUB capped supply and creates 100% of \$SSC supply.
- A successful Subnet network means billions of dollars market-cap for Sbunet coins.
- Short-term main revenue stream: selling new service providers and new users \$SUB and \$SSC coins as part of bootstrapping the product.
- Long-term revenue streams created by developing and selling premium Subnet clients and service providers features.



# Network services crypto-billing

- Subnet is powered by a unique crypto billing solution.
- This is a key for enabling Subnet's new business model and for replacing ads.
- Users pay service providers for network services in crypto.
- Users make crypto deposits with provider via a blockchain transaction every few months of usage.
- Payments are deducted from user's balance with provider by the provider.
- Automatic and seamless UX - zero user-friction while using apps.
- Extremely low users transaction fees.
- Secure. Users don't need to hold large funds in hot-wallet. Only spending coins.
- Accountable - users can easily review all payments. All payments are signed and verifiable.
- A novel built-in crypto billing dispute resolution mechanism protects users from bad providers.





# Subnet 2<sup>3</sup> Commandments

## Federation

1. Social media and digital communications network services should be provided by a **federation of service providers** using public, open and shared protocols, and not by one company using proprietary closed protocols.

## Freedom

2. Platform must offer **absolute freedom of speech and expression**. Users should be responsible to **self-moderate** groups they own and to leave groups and unsubscribe from content sources when they find shared content to be harmful.

## Identity

3. The platform should support **multiple identities per person, AI or organization** to allow these to fully express themselves in the way they see fit to different communities and to different people. Users, AIs and organizations should have absolute freedom to decide how **personally identifiable or not** their platform's identities are.

4. Platform should not be able to **ensor or de-platform anyone** from it for whatever reason.

## Payments

5. Users must be able to easily migrate between service providers without experiencing service disruption.

6. Providers should be free to offer **any pricing model to users** such as ad-based, pay-per-byte delivered over Internet, payer per byte of stored user content. The pricing model for network services should be determined in an open market of service providers. Users should only be billed with what they agreed to pay.

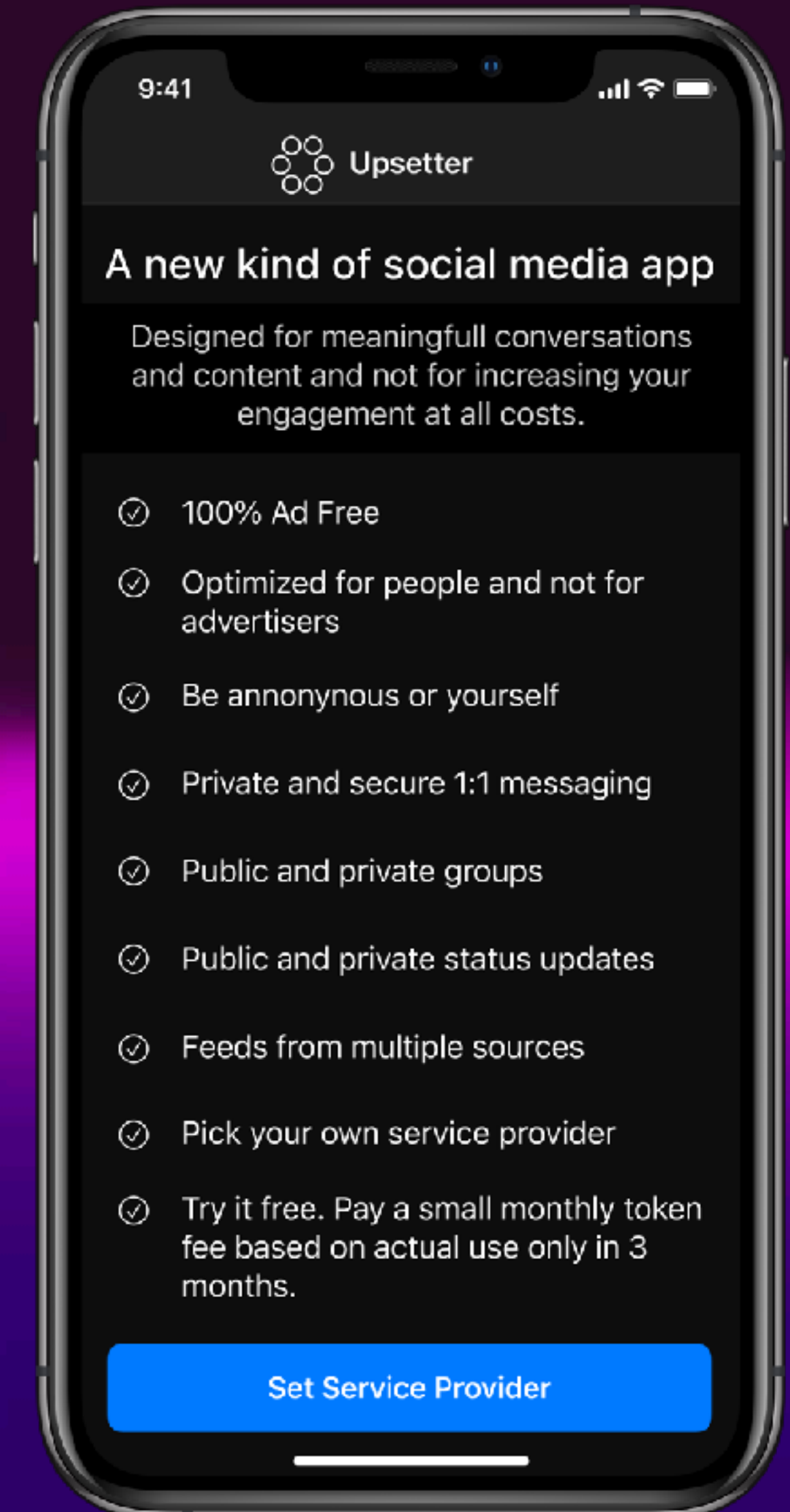
7. Users should be able to choose a provider with a pricing model that is acceptable for them and should **have a choice to not pay for network services with their attention and data**, and to use the platform without having to consume algorithmic engagement-based content.

8. Platform should have a **built-in native cryptocurrency** and a stable coin which are powered by a **decentralized and permissionless blockchain** to enable users to pay service providers, and to each other very small amounts or very large amounts, without any censorship on such transactions possible from any party.



# Subnet

- Vision to create **user-centric digital communications apps** built on top of a new kind **decentralized network infrastructure**.
- A **highly-opinionated project** that is designed to work in a world where one size doesn't fit all.
- Designed to provide an alternative to **centralized communication apps** and other decentralized emerging platforms that have different core values.
- Focus on **designing the core user-centric incentive-compatible protocols** and on prototyping the protocols.
- Initial **inverted designs for fundamental communication apps** - instant messaging, group messaging and status feeds.
- Aim to build Subnet with a remote team of exceptional and passionate creators and builders from around the world - no meta, just building.







# Subnet

## Better, resilient, cheaper

### Better

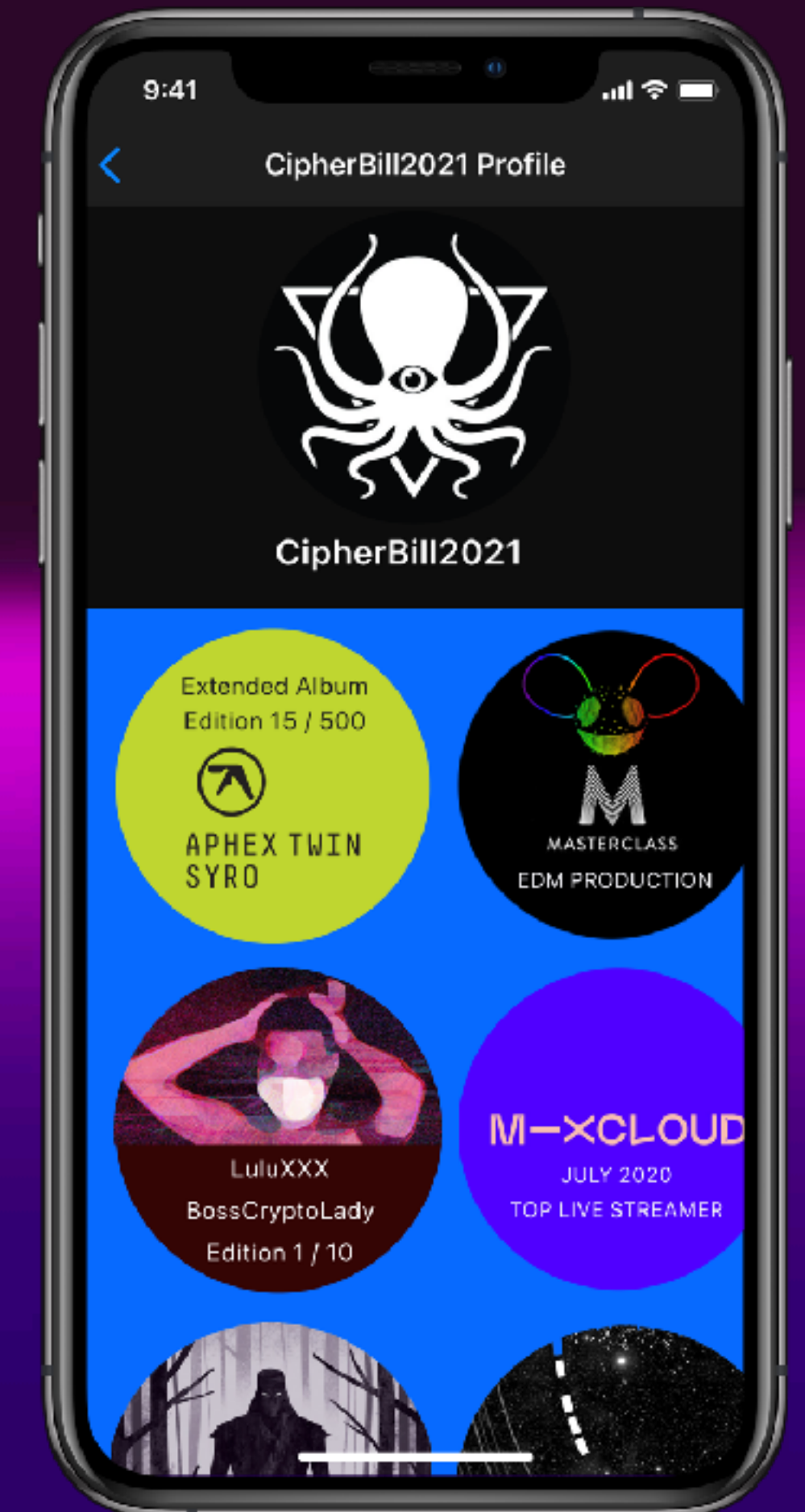
People are the users not the products. User-centric design.  
Multiple identities.

### Resilient

No single point of failure, no company to go after, no  
downtime if one provider goes down.

### Cheaper

Than paying with user's attention. Optimal price for social-  
media without ads





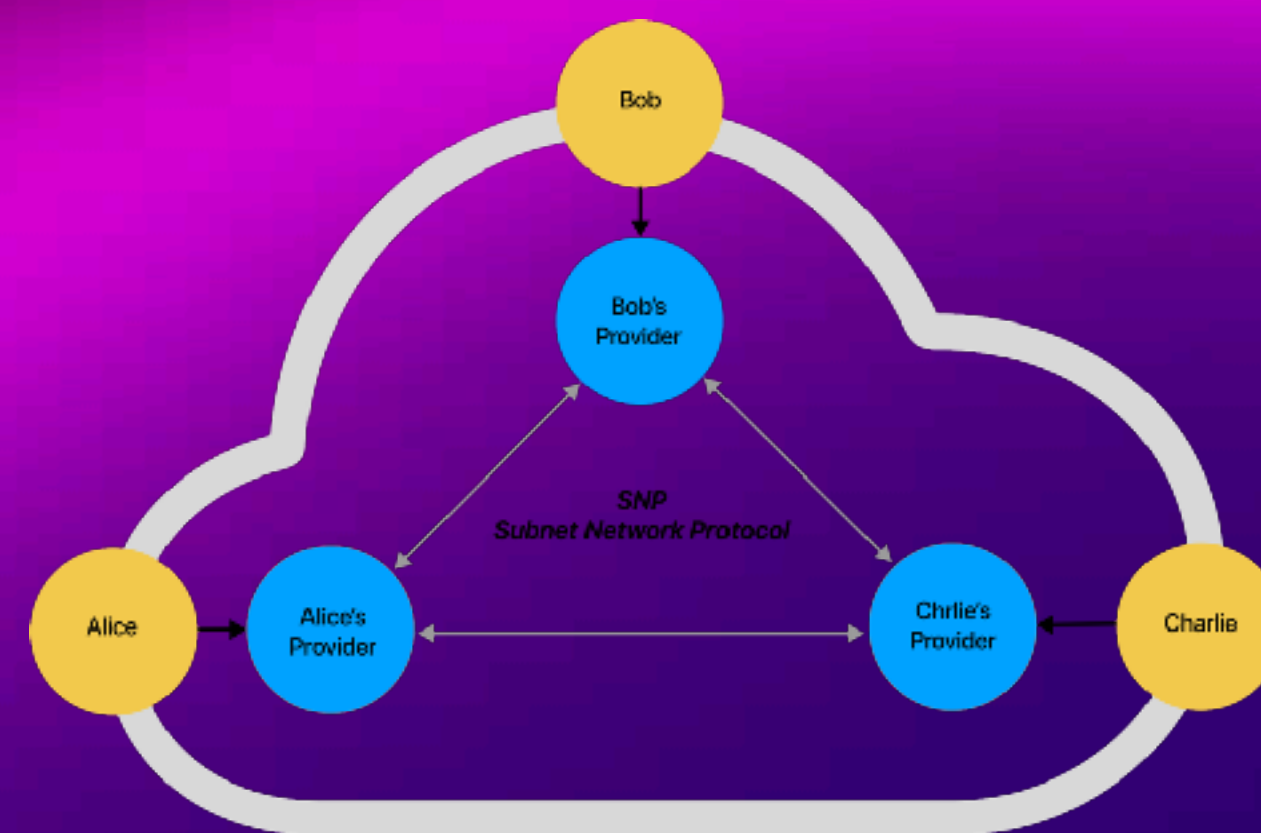


# Subnet

## Thank you

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