



Point Network

Decentralized Internet

March 1, 2021

EXECUTIVE SUMMARY

Objective

Point Network is an implementation of *decentralized internet*, also known as “web 3.0”, with POINT being its native digital token.

It’s a blockchain-based peer-to-peer network designed to make the internet more secure, private, decentralized, and censorship-resistant.

Achieving the Objective

We believe blockchain/cryptocurrency space currently lacks two key things to finally become widely adopted and successful: *decentralized storage* and *decentralized browser*.

We believe after we add these two key components, we can expect a vast array of diverse types of decentralized applications (dApps) to spring up and flourish.

We also believe current dApps would benefit from having their presence on or even fully migrating to Point Network.

TWO KEY COMPONENTS

Decentralized Storage

Many blockchain startups that have tried to recreate applications like social media but with added decentralization and censorship-resistance, failed when they tried to **store the content on the blockchain**, which was slow, expensive, and each and every full node participant was expected to keep pictures of someone's cat on the other side of the world.

Projects like IPFS attempted to solve the problem by **only storing small hashes (digital fingerprints) of the files on the blockchain**, but the files themselves are served altruistically by participants in a BitTorrent-like network. And while this works well for popular content, still, participants are rarely interested in storing someone else's blog posts and cat pictures for free. And going back to cloud storage (as some "decentralized" apps cheat by doing) erases all the benefits of decentralization.

Projects like Filecoin proposed a superior design by creating **a market of decentralized storage providers**, being paid with micropayments based on data size, and their collateral being destroyed if they lose the files. While initially we were going to adopt Filecoin as part of Point Network, we found a more holistic approach, however those familiar with Filecoin will find the concepts similar.

POINT is a utility token designed mainly for micropayments to storage providers and relay nodes for the usage of the decentralized internet. Holding the POINT token without using it on the ecosystem should not be the aim of users in acquiring it.

Decentralized Browser

User experience is critical for mass adoption. At present, it is shockingly terrible. Users have to deal with lack of standards, configuring and maintaining a patchwork of diverse blockchains and dApps, each with their own implementation of common parts. Standards like ERC-20 and Metamask API helped a little, but surely we can do much better than that.

We propose that the face of decentralized internet, the first thing that a user encounters, would be a special **web3.0 browser** we're developing, called **Point Browser**. We believe that eventually, everyone will see the benefits of migrating from obsolete protocols to the more secure and private web3.0 infrastructure, so to rip the bandaid off quickly and not allow dApp developers to cheat and keep one foot in the centralized world, **there is no access to the legacy internet**. Sites like microsoft.com and google.com cannot be opened in this browser. Only decentralized websites and content can.

Now that we have a web3 browser, able to interpret and execute the incoming data however we want, we have a powerful tool, which we can use to rapidly develop and propose web3 standards, leading to less chaotic user and development experience.

WHAT THIS GIVES US

After we have achieved *decentralized storage* and *decentralized browser*, here are some of the things that become possible:

Identities

We don't mean KYC identities, but handles, like Twitter usernames (e.g. `@mike`), only with public keys attached. They will then be used for self-identification in:

- decentralized social media (friends would find you by the handle `@mike`)
- decentralized websites (you would automatically own `https://mike.z` domain space and all subdomains)
- decentralized email (instead of `mike@gmail.com`, they could send emails to `@mike`)
- payment identifier (instead of `1WtFv3RyBAdaDDReSS9x0wBXogwwZGnrDF`, people could send money to `@mike`, or select you from their Contacts list, or send it right in the chat window)
- and many more dApps.

Privacy-conscious people can have several handles. For enterprise use cases, businesses will enjoy fine-tuning of permissions (e.g. having `@samsung` owned by a *multi-sig smart contract* - any public posts would have to be approved by digital signatures from both marketing and legal departments - and digital signing would be as easy as receiving a notification and clicking one button).

Decentralized Websites

Censorship-resistant, DDOS-resistant websites. If some content becomes popular and many people start downloading it, relay nodes notice it, and in hopes of taking the micropayments for themselves, begin to cache these files on their own drives to maximize income. As a result, a self-organizing decentralized Content Delivery Network (CDN) is created, automatically scaling the availability of content according to the demand, based on economic principles.

By cutting off access to the legacy internet from our browser, we cut off any ability to collect information about visitors without their knowledge and permission. We undo the damage GDPR has done to your browser experience, where every single website asks you to click "Agree". In web3, there is no need to ask a user's permission for something which is not possible.

Decentralized Social Media

Decentralized, censorship-resistant social media. Where content creators have a direct connection to their audiences, instead of renting it from “big tech” and worrying that it might be taken away at any moment for any reason without any recourse, as is happening right now to hundreds of thousands of accounts.

Chaos is managed by allowing communities to have standard moderation tools to have control over their content and membership, but individual people can still exercise their right to free speech by posting messages on their wall or creating their own communities.

Decentralized Email

Each email, with or without attachments, can just be a file, encrypted with the public key attached to the receiver’s identity (and thus decryptable only by the receiver). Then the encrypted file is placed with one of the storage providers, and a notification with the file’s hash and the sender’s handle would be sent to the Mail smart contract. And just like that, we finally have **the most secure email protocol**, more secure and private than Protonmail.

Decentralized Instant Messaging

By applying the same principles as decentralized email, we can also enjoy end-to-end encrypted chat messages, encrypted group chats (not available even in Telegram), and audio and video calls. Even Signal - lauded as the most private messenger - asks for your phone number to be attached to the account. In Point Network, this is not required.

Decentralized Autonomous Organizations (DAO)

While Point Network could provide numerous benefits for enterprise (decentralized encrypted G Suite, Slack, etc.), we believe it has the power to establish an entirely different class of businesses.

Currently, Initial Coin Offerings (ICOs) and other cryptocurrency crowdfunding mechanisms lack important features from traditional venture capital/IPO space. Investors have little to no control over the direction of the project once the funds are sent to the CEO’s wallet. We plan to resurrect the dream of Decentralized Autonomous Organizations (DAOs) by proposing a set of standards and protocols for them, much like the proposed ERC-20 standard was crucial in the proliferation of Ethereum-based tokens.

For example, even before the fundraising, investors could negotiate their preferences. The executive team would be able to see these conditional offers (e.g. *50 more investors will give you money if you agree to include clause X in the smart contract*). An example of such a clause could be adding a particular reputable crypto auditing firm as a signer of transactions on the company wallet, which would make sure that the funds are spent on salaries and other expenses, and not

misused by the team. When freelancers/employees and other companies have their payment handles publicly known, it becomes more transparent and provable, and prevents embezzlement.

Throughout the project, investors would have a governance interface to discuss and vote on major decisions (including the ability to fire and replace the CEO right on the blockchain, which is close to impossible in the ICOs today). Additionally, if the project fails, the unused money could be recouped by the investors. We hope that this will significantly decrease the risks of participating in ICOs while not negatively affecting the potential ROI upside, and make this space more appealing to VCs and investors.

Support for Content Creators and Open Source Developers

In addition to the apparent benefits such as having Decentralized Github, Decentralized Patreon, and hiring freelancers for DAOs right on the blockchain, there are even more subtle benefits that could be offered to content creators and Open Source developers.

Crypto art NFT space, which has become popular recently, would also enjoy synergistic benefits of having one ecosystem of dApps. Currently, crypto art collectors wanting to show off their NFTs are restricted in their ability to display the artworks. They have to direct their friends to an obscure website somewhere (or wait for VR digital houses with art on the digital walls to catch up). In Point Network, they could have the ability to place dApp widgets right on their social media profiles, in the sidebar, alongside the posts, and people visiting their profile can view these NFTs, browse collections, and even buy them from the owner right there.

Other types of sidebar widgets could include donor cards recognizing monthly donations to a particular cause, a content creator, or an organization, which could, in turn, promote the cause to the users visiting the profile and encourage some of them to join in.

We plan to suggest to DAOs to make it best practice to reserve a certain percentage of their tokens (or even a percentage of their dividends from profit from dApp fees, when the legal framework catches up and DAOs would make this in full compliance with the law) to divide between all the Open Source libraries they're using. In turn, those libraries would have a certain percentage divided between the sub-libraries they are based on. Eventually, the profit sharing would trickle down to the individual contributors who wrote the code commits for that library.

Currently, participation in Open Source development has opportunity costs attached to it (the time the developer could have been working for profit). However, DAO reserve sharing (and we hope that even the ordinary companies would follow suit), could lead to Open Source becoming as, or even more profitable in some cases, than commercial software development. If developers realize that they can receive a steady income stream from their Open Source libraries being used by many organizations, we expect the quality of software, as well as the number of developers working on it and time spent, to increase rapidly.

CONCLUSION

Of course, we have even more exciting ideas to discuss: escrowless deals (two people with no trust towards each other safely concluding a remote sale of goods without an intermediary), pull payments (using crypto wallets in credit card mode with monthly subscriptions and automatic payment for e.g. utilities), collaboration of AI services, VR & AR applications, mesh networks replacing internet providers, and a lot more.

However, we are seek to not get carried away and remain laser-focused on getting our prototype to the MVP stage so that we have both key technologies first - storage and browser - working well. As of the date of this document, we do not have a public sale yet, but we accept private contributions (you can reach out to business@pointnetwork.io for more details), and we greatly appreciate any other support from those who shares our excitement and wants this technology to come sooner, including spreading the word and participating in the community.

Q: How can you build *all of this* quickly? It would take you decades!

A: After we are done with storage and browser, we plan to launch *Point Ventures*, a place for incentivizing developers and founders to work on different dApps discussed above, providing them with support and assistance. That way, dozens of workgroups can work in parallel to implement all the dApps, yet still have the benefits of oversight and direction from Point Network.

Q: Are you creating a safe haven for criminals?

A: No, we want to leave the world after us better, not worse, and if we believed this technology wouldn't be net positive for the world, we wouldn't be working on it. It is our conviction that the ease of investigation must not come at the expense of everyone else's digital security and privacy being utterly broken and subject to abuse from NSA employees, datacenter employees, hackers, and corporate espionage groups. As with the internet itself, it is our hope that positive applications and increased innovation will outweigh the use by occasional bad actors.

With cryptocurrencies being in the spotlight again, you might be wondering, "I thought blockchains and decentralization would change the world? Where is our digital revolution we've been promised?"

This is because it is just getting started.

Bonus: X Factor

We needed to brainstorm ideas on avoiding cybersquatters - those who quickly snatch away domain names and account names, hoping to sell them for a high price. This has been an issue in practically all blockchain projects with handles available to register. If people start hoarding handles like @apple and @billgates, this is obviously a problem.

We came up with this: what if, for the first 6 months after Point Network launch, we attach a centralized oracle, allowing all people that have a Twitter account, to claim the same handle on Point Network (to be clear, people without Twitter accounts could also register one on Point Network, just not one that is currently in use on Twitter). To claim their Twitter handle, the only thing they would need to do is to post a tweet with a hashtag (in order for the oracle to be able to find the tweets), a URL to our website ending with a special software-generated activation code, plus any arbitrary text they want. The tweet must stay for at least 24 hours to signal that it was, in fact, claimed by the legitimate owner.

After the 6 months, the oracle would be detached, and the system would be fully decentralized. Now everyone would be able to take any handle that was not claimed (by participating in an auction).

This is where we realized that we might have just accidentally discovered *a virality factor*. When someone posts the activation tweet, all their followers can see it, follow the link, read about why this tweet was posted and might decide to do the same to avoid losing their handle. For the first 6 months after the launch, all people and companies, including the most popular ones (from @elonmusk to @microsoft), will face a choice. “Here’s some project called Point Network, which might vanish, or it might really become the next internet. On the one hand, we can ignore them, and then several years down the road we might have to pay tens of millions of dollars to buy our handle from some cybersquatter, who might write God knows what in the meantime under it.”

“Or we can just post one tweet.”

What would they choose? We are very eager to find out.

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