

Discussssions.app White Paper

Executive Summary

The Novusphere Foundation supports the development of decentralized open-source software focused on advancing fundamental human rights, especially the right to privacy and free expression. Discussions 2.0 is the evolution of blockchain-powered social media and champions both of those principals. At its core Discussions 2.0 seeks to return power, responsibility, and ownership of ideas and the network that hosts those ideas back to the users and creators that make social media worthwhile. Discussions 2.0 introduces enhanced moderation tools built to maximize user power while minimizing objectionable content. A content ranking and reward system using non-tradable tokens provide a record of accounting and let users earn enhancements as they build a reputation on the platform. A staking mechanism rewards holders of the Novusphere's native token ATMOS. Stakers will earn ATMOS and other tokens collected as fees in exchange for ensuring that the system is resilient, self-sustaining and private. Rounding out the platform is a unique decentralized advertisement module designed to respect user privacy and choice while providing an automated low-cost means of promotion.

Discussions 2.0 further develops the idea that users of decentralized applications should not have to own tokens or have any exposure to cryptocurrency in order to benefit from the systems being built on top of the technology. The ATMOSDB software along with the UnifiedID brain-key login functionality makes it possible for all users to participate in censorship-resistant conversations. These key pieces of Novusphere technology provide a critical link between the complexities of blockchains and end-users who see value in decentralization. Discussions 2.0 also introduces the concept of delegated moderation, which gives users a method for offloading some of the responsibility of managing their feed to other trustworthy users of their choosing. This transparent process is entirely opt-in and opens up the possibility that Discussions.app will become the first platform to support moderation as a service ecosystem.

Why Decentralize Discussions?

Freedom to communicate is not just a fundamental human right, it is fundamental to our species ability to solve problems and work out innate differences.

Corporate Gatekeepers in control of social media are moving us dangerously close to global techno-fascism. Control of information is now of paramount importance as our culture becomes totally dependent on complex information systems. Governments and corporations naturally form alliances of mutual benefit, mainly around narrative control and social cohesion. It is out of the scope of this paper to address the causes of these alliances, but we will attempt to demonstrate how our app provides an alternative. Discussions 2.0 enables collective

communication outside of the direct control of corporate and government influence and provides a transparent and unalterable record of interactions.

- Discussions 2.0 has been designed to maximize freedom and by default give control to users. It seeks to minimize confusion and reduces the arcane technical minutiae so common in the blockchain space with its frictionless on boarding system dubbed UnifiedID.
- Provide a place for robust discussion and debate free from authoritarian censorship and the monetization of personal user data. Users earn a non-tradable token called “AURA” which unlocks deeper levels of customization and serves to bolster a user's reputation within the Novusphere.
- This paper seeks to succinctly explain the Discussions 2.0 platform, its key features, and how its tokenomics will change the way people think about social media.

The Freedom to Communicate

Humankind owes its development and rapid dominance of the planet chiefly to our ability to pass on information from one generation to the next. The internet shatters the concept of linear knowledge transfer by marrying real-time communication with the ability to do deep historical research. Social media enhances these attributes by making it possible to more readily find other people, engage with them meaningfully in real-time, share knowledge and in turn learn from them. Humans' dependence on these technologies to advance our way of life is no different than our dependence on the written word or before that on our ability to speak. For better or worse the evolution and advancement of our species is tied to this new communication paradigm.

Evolutionary destiny hijacked by monetization.

Decentralizing important things is a way to preserve them. From dividing governance of a nation-state into coequal branches to separating launch keys, or breaking up the early telecommunication monopolies. History has shown the importance of making sure one person or one group isn't in control of things critical to survival. Our rapidly evolving communication capabilities are no different and must be taken out of the hands of the small group of people who currently dominate. Decentralized social media has advantages over any centralized social media platform in this regard, and especially over the increasingly dominant and monopolistic incumbents. Some key components of this decentralized ecosystem are as follows.

Ownership and governance of the platform is in the hands of the users and stakers of ATMOS.

- ATMOS can be earned by users who provide resources to the network
- Users can delegate moderation to any other user or even groups of users they please. All users are the default moderators for any sub they visit. They control what they see based on what they believe is acceptable.

- Users are empowered to host their own version of the forum if they believe that the default portal is out of line with their beliefs or wish to have an altered view of the platform.
- Users retain maximum freedom and privacy and can operate completely anonymously if they so choose. Discussions collects no email or personally identifiable information of any kind.

Open source blockchain-based social sites are better.

- Cheaper to run and are transparently developed which reduces the need to maximize profit and makes the system less corruptible.
- There will be no shareholders to please at the expense of users.
- A transparent ad system benefits token holders. The value of the network will trump any short term boost in profits that might come with adopting a more invasive advertisement system.
- Development is public and transparent, anyone can join in and it's the community's choice to adopt changes or variations that might emerge that provide a slightly different experience but use the same data set.
- The combination of a leaner and cheaper social site means that there will be no aggregation of private user information. Unique users will still be an important audience for potential advertisers, but without the invasive authoritarian tracking methods that are currently in play on centralized social media.

There will be a record of trust thanks to the indelible nature of blockchain.

- Any system that can be abused will be abused. Any system that can't be abused isn't free. Having a common ledger of truth will prevent the widespread abuse that current social media is either propagating or is the root cause of. Publication of fake news will not be eliminated, but a record of accounting will be available that can illuminate the parties responsible for misinformation.
- Transparent by nature, but private and anonymous by design. The Novusphere strongly defends human rights to privacy.

Unleashing Discussions 2.0

Discussions 2.0 is designed at every turn to maximize user power and minimize the ability for a central authority to influence or abuse its users. If decentralized social media is superior to centralized systems, why haven't we seen the mass adoption of decentralized systems? The specific reasons vary from network to network, but a common theme is that decentralized systems are difficult to use and rarely provide a user-focused experience, or commonly aren't really decentralized and therefore offer little to users except for a much smaller network. The Novusphere has analyzed historical shortcomings of other decentralized networks and our own

experience running the original discussions.app in order to address the most glaring issues. We have developed a mantra to guide us, put simply - empower users.

The Novusphere has given back the power to users over their social graph by making them the default moderator of their experience and providing a means to delegate moderation power to whomever else they choose. Delegated moderation is the only system that will allow true freedom and is compatible with a truly decentralized network. The Novusphere has also designed the software to be lightweight enough that self-hosting an instance of Discussions is possible on standard consumer hardware, mitigating the threat of us censoring the forum beyond what the legal jurisdiction requires. In a similar vein, the staking system, that provides redundancy and governs the network can be run on very low power and inexpensive machines, which should allow for the maximum number of participants thereby adding another protection against censorship and abuse.

All social media is limited by its network size. The larger the network the more complete an experience can be provided to its users, which in turn makes the network more valuable as more users make more content. This network effect along with the massive amounts of user data have created protective moats around the current social media incumbents. It is, therefore, a requirement that any competing system not only provides better value(as discussed above) but also provides a superior user experience. Decentralized social media that require heavy direct interaction with blockchain tech will struggle to attract normal internet users and indeed will fail to attract blockchain users without building a sizable network effect to generate a self-sustaining content ecosystem. Any “dapp” that requires users to own cryptocurrency will fail to gain mainstream adoption, even if new users are subsidized. (see Steemit). Social media requires a barrier-free on-ramp. Novusphere introduces UnifiedID to bridge this critical gap. Powered by a brainkey, the users' online identity is secured as they are on-boarded into a completely decentralized system without wrestling with key-pairs or complex account systems, wallets or other detritus common to blockchain-based applications. All of this occurs without collecting any private information.

Resiliency is another important quality, after all, if the system is fragile and performs unreliably, it can be shut down or destroyed, users will not feel comfortable investing time and energy into the network. Fragility comes in many forms, from using outright centralized components subject to attack to building systems that are so heavyweight that no regular user could possibly host it making the entire system vulnerable to state actions that take it offline. The Novusphere intends to exist across a variety of chains, which is a defense mechanism all decentralized apps should be working towards. Staking is one of several revenue streams planned for discussions 2.0 including a multi-year subsidy awarded for running a Novusphere node. The initial staking system will provide a layer of redundancy to secure access to content relevant to discussions 2.0 in the event that history nodes go down.

Future staking rewards will come from validating transactions on a privacy enabling side state. This side state will provide state of the art obfuscation of transactions for any Novusphere compatible token. Other means of earning staking rewards are planned including helping to host

viral content. Supporting good content as a node operator by running an IPFS based decentralized hosting system is in the best interest of the network. Content that node operators choose to pin to the network will earn subsidies corresponding to the relative popularity of the content in question. In addition to staking rewards, ATMOS holders will directly benefit from the decentralized advertising platform designed to unobtrusively and noninvasively serve ads to users. Like all Novusphere software, the ad platform will empower users and will be subject to an individual's moderation settings. We propose a new relationship between advertisers, the ad platform and users that respects privacy, preferences and provides transparent accounting of user engagement.

Discussions 2.0 as a Framework

Discussions 2.0 is powered chiefly by ATMOSdb and the UnifiedID brainkey login system. These technologies provide the essential tech stack for any application developer to harness elements of decentralization including censorship resistance, decentralized governance and a reputation/identity system that functions without sacrificing privacy.

- Novusphere encourages 3rd party development and will be sponsoring hackathons to help spread awareness about our core technologies and values.
- The Discussions 2.0 application should be viewed as both highly extensible and as a template for parallel development. Utilizing ATMOSdb can dramatically speed up decentralized application development or porting a traditional app to the blockchain.
- Decentralized Identity and reputation can be added to any dapp to help them gain market share among non crypto users.
- Novusphere ADs bring decentralized advertisement to any platform wishing to respect user privacy.

UnifiedID does for identity what ATMOSdb does for data, providing a smooth path for normal internet users to utilize decentralized applications. By making it possible for developers to pay for all their user's resources, UnifiedID puts mainstream adoption on the table in ways not seen prior. The basic functions of Discussions 2.0 can be rearranged to provide highly specialized interfaces supporting future goals of building a completely decentralized Bounty system, social trading, and other dedicated social media and content delivery systems. Third party developers looking for an identity system and low friction on-boarding method can incorporate UnifiedID and AURA into their own dapps and leverage a growing ecosystem while taking advantage of the community building features that Discussions.app is already well known for. With the Novusphere Ad platform any content creator, dapp, or website can earn crypto without relying on privacy invading providers like Google or Facebook.

Key Features and Tokenomics

UnifiedID allows any internet user to fully participate in the Discussions 2.0 ecosystem thanks to resources staked by The Novusphere Foundation to the EOS main net. When operating on

other chains, similar resources will be staked as necessary. UnifiedID will work across platforms and can be implemented by 3rd parties who wish to leverage the decentralized reputation system. A user will be able to interact across any Novusphere supported chain with a single login and single wallet.

- Actions including sending and receiving cryptocurrency, earning and redeeming non-tradable AURA tokens, participating in moderation and of course posting to the forum are possible for any user and does not require any personally identifiable information.
- The system is designed to give users a full experience while at the same time slowly exposing them to cryptocurrency and impressing upon them the importance of censorship resistance and privacy.
- Moderation without coercion.

Preventing spam and other unwanted content has traditionally been managed by centralized moderation and administrative censorship. These tools are generally effective at removing unwanted content, but require centralization and often are about as precise as using a sledgehammer to smash a mosquito. Discussions 2.0 will use two main tools to deal with unwanted content, Delegated Moderation and the AURA token system that powers reputation and governance.

Delegated moderation is a simple concept that starts by making moderation opt-in, trusting users to determine what content is relevant to them, and then uses the wisdom of the crowd as a force multiplier. Users can delegate to like-minded people the ability to help keep their experience free from unwanted content. The entire process is transparent so at any point, a bad moderator can be removed by a user and good moderators can reap direct benefits from grateful users. It is likely that given enough time a market for moderation as a service will develop which could prove invaluable to small under-resourced projects. Discussions 2.0 operates like a multiverse, each person encountering content customized to their own tastes, but sharing the same space/topics within the discussions ecosystem.

Another quietly revolutionary feature that delegated moderation enables is the shattering of ideological bubbles. No longer will a topic or “sub” on a particular site be devoid of opposing viewpoints. The users of all political stripes will be occupying the same space and topics. Users will determine their own unique blend of viewpoints they are exposed to. A kingdom for every person, tailored to their own preferences. Conversations will flow like ribbons in a cosmic void, ranging and wild but perfectly suited to the needs of each individual.

Novusphere has two distinct tokens with very different tokenomics. AURA is a non-tradable token that establishes reputation and is earned by users when they post, moderate and participates on Discussions.app. ATMOS is an EOS standard token that provides incentives for stakers to provide resources for the network, vote weighted governance, and will eventually validate side state-private transactions in exchange for fees. AURA accumulation will unlock customizations and user experience enhancements as well as provide increased resources for

users. AURA can be purchased using ATMOS but cannot be sold, in this way a project wishing to quickly unlock enhancements and features can do so with a minimal time commitment.

Conclusion

Discussions 2.0 will evolve beyond the confines of this white paper and this narrow overview should be thought of as a jumping-off point. A marker of success for any open-source decentralized effort is when parties unrelated to the founders add value to the ecosystem and the community that forms is capable of guiding the ship regardless of the technical leadership. To that end, the Novusphere foundation will use the Discussions platform as a springboard for community engagement and developer support. Another goal that the foundation has is to harden the Novusphere against attacks that originate on the EOS main net by branching out to several sister chains and then eventually to many other unrelated blockchains. This has the obvious benefit of making our technology more unstoppable, but it also serves our other goal of making our technology more accessible and provides us with a larger talent pool to attract 3rd party developers.

About The Novusphere Foundation

The Novusphere Foundation is a community founded not for profit organization committed to spreading decentralized open-source software. The Foundation provides guidance, funding, and organizational capability for the development of Novusphere software, including Discussions.app and ATMOSdb. The Foundation is interested in supporting third party development efforts based around Novupshere technology.

How Discussions.app Works



