tomi

Free as in Speech

tomi Whitepaper

by the Free Birds

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tomi creates a complete alternative world wide web that combines the best of Web2 and Web3 technology for a privacy-preserving, self-governed and self-funding internet. Anyone can access this parallel web through a simple browser, freeing themselves from the surveillance and control of large organizations which have come to dominate the world wide web. Rather than reinventing the entire infrastructure, tomi takes basic working building blocks of the web and supplements them with governance, cryptocurrency, identity, and privacy layers that allow the people who use the tomiNet to be the governors of the web through a direct democracy DAO.

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ABSTRACT

tomiNet is a parallel worldwide web, designed as an alternative to the government-controlled and censored web, initially targeted at users in locations where their access to open information is limited, or where businesses cannot ensure their domain-based property rights on the existing Web2 infrastructure.

tomi combines the best of Web2 and Web3 technologies for a privacy-preserving, self-governing internet. Anyone in the world can access the tomiNet through a simple browser, opening up a completely new internet that is governed by the participants in the network.

For much of the world, the internet is censored or controlled by government regulation or corporate power, or both. People seeking freedom of expression and businesses seeking legal protections are increasingly finding themselves in a position where they are unable to function on today's world wide web. From Iran to China to Saudi Arabia, an increasing onslaught of regulation is squeezing businesses and citizens in ways that violate basic freedoms.

tomiNet combines the best of Web2 and Web3, along with the establishment of hardware for a mesh network. Through this comprehensive approach, tomiNet has created the infrastructure that will become the next web, a place where people can enjoy their freedoms and businesses can ensure the independence and ownership of their online properties.

tomiNet leverages basic TCP/IP and DNS protocols for basic internet, TOR and Starkware for privacy and zero-knowledge, Ethereum and Starkware for creation of a native cryptocurrency, and DAO technology for self-governance of the entire ecosystem.

The establishment of a DAO is essential for the self-governance of tomiNet. In order to be free, people need to have a say in the decisions that affect them. By creating a fully independent governing body made up of the netizens, tomiNet ensures the long-term viability of the infrastructure and the long-term freedom of the people who use it.

CHALLENGE AND OPPORTUNITY

The internet was originally envisioned as an anti-fragile, censorship-resistant, free speech network where anyone could publish anything. However, the internet wasn't pre-designed: it evolved over a number of years as institutions and corporations came online, adding to the protocols and applications. Both open-source coders and big corporations contributed to the end result that is available today in the form of the World Wide Web. While the web's physical infrastructure remains decentralized and resilient in the face of natural and man-made disasters, much of the actual power has been concentrated in a few hands due to the network effects that have favored large corporate interests over the interests of the masses.

The situation is so grave that even the blockchain-based protocols which were supposed to decentralize the web are in danger, because they are built on top of a centralized foundation.

As a result, on today's internet:

- People's data is collected and used to manipulate them through search and social media.
- Internet protocols are becoming regulated and censored.
- Individuals, addresses, and content can functionally be censored in a variety of ways.
- Governments cooperate with large corporates (and sometimes force this cooperation) to obtain information about users and block websites, including for the purposes of restraining the population or controlling flows of resources and information.

Since the Middle Ages, higher social classes controlled the lower classes' behavior and kept the social order by preventing them basic rights such as the right for property, contracts and occupation, the right for information, and the right of free speech: how can one improve his/her social and financial status without the ability to own property and land, to contract others and to choose his/her own vocation and field of trade? How can one know any better if he/she is deprived of education and access to knowledge? How will the public resist unfair and immoral laws if people cannot freely communicate with each other? The Middle Ages have long passed, but these techniques are still used by governments through the modern communication and trading technology, that is, through the internet.

Freedom of expression, personal privacy, freedom of information, freedom of occupation, freedom of contracts and freedom of property are fundamental rights without which humans cannot have agency to make their own decisions freely. Humans have the right to agency in their speech, actions, and decisions. They have the right to be free from repression and arbitrary confiscation of their property. For a functioning and moral society, people must have an infrastructure where their speech is not censored and their property is safeguarded.

WEB2 IS FRAGILE AND WEB3 IS CAPTURED

CENTRALIZATION IN WEB2

Despite the initial intent in the creation of the internet, the web has come under the control of centralized entities. Web2 has ceased to be a censorship-free zone and today, both corporations and governments can shut down networks, websites, and individuals.

One of the most well-known cases of Internet censorship is the wholesale blockage of websites in China so that the government authorities are able to control people's access to information.(1) However, this is hardly an isolated case. In August of 2022, the Indonesian government began to require all technology companies to register their websites with the applicable governmental authority and provide access to their systems and data upon request, or have their websites blocked in that country.(2) Many websites, including substantial ones such as Yahoo, PayPal and gaming websites were shut down as a result of this regulation.(3) This type of activity, sometimes called 'digital nationalism' is chilling for open internet and for businesses. Operation of a website and establishment of a business involves large investments of resources. If people and companies cannot ensure their property rights, including rights to internet properties, they may be unable to justify such investments. This not only puts businesses at risk, but it also causes deterioration in the lifestyle of citizens who depend on these businesses. Protection under the law is fundamental for any type of commerce.

Unfortunately, this behavior is not limited to any particular jurisdiction. More than a decade ago, an investigation into Australian blacklisted sites, meant to prevent only egregious behaviors, turned out to list many sites with no offensive content whatsoever.(4) Without oversight, these blacklists become ominous even in liberal democracies. Today, much of the world, from China to Saudi Arabia to Russia, is simply blocked from free access to information and where businesses can at any time lose their online assets due to regulatory changes.

Additional cases of website blockages in democracies include:

- Domains are controlled by a DNS service which is maintained by 13 nodes. The 13 entities running these servers include the US Army and Department of Defense, NASA, two US-based universities, a number of US-based entities and one entity each from Japan, Sweden and the European continent. These 13 entities hardly represent the world, and they have a stranglehold on the internet's naming system.
- Google maintains a number of blacklists that can functionally ban any website,(5) and in 2009 there was an incident where Google blacklisted the entire internet.(6) Whether this was an accident or not, it indicates the severity of the problem. For at least 13 years, Google has been capable of disappearing any website on the internet.
- Surveillance of internet activity is ubiquitous. People's data is collected from them and used to manipulate their activities. Movies such as The Social Dilemma and books such as The Age of Surveillance Capitalism have highlighted some of the most problematic issues that affect both individuals and democracy itself.(7),(8)
- Government censorship of internet activity has grown beyond the usual suspects, with many modern democracies clamping down on free speech.(9) This censorship tends to be politically-motivated, but as the recent war in Ukraine has shown, this level of censorship leads to widescale suffering.
- Since the COVID19 crisis, social media has implemented wide-scale censorship, apparently in collaboration with the US government—censorship that affects everyone worldwide because the US-based companies are enforcing this censorship globally. A current court case accuses the US administration of censoring professionals such as doctors, scientists, and other experts.(10)
- Google and Facebook logins for every site have created monopolistic behavior of these companies, which have the ability to collect unprecedented amounts of personal data across the web, including data from mobile phones.

In other words, although the internet was intended to be a platform where people can freely express themselves, the system has become corrupted to a level where everyone, including (but not only) political opposition, freedom fighters and professional experts are unable to express themselves freely. In fact, most of the world's population experiences a censored and controlled internet, one where they cannot be sure that their business investments are secured and where they are blocked from receiving accurate information.

CENTRALIZATION IN WEB3

With the publishing of Satoshi Nakamoto's whitepaper on Bitcoin, the Web3 movement was born, promising to provide a decentralized monetary system where any two parties could transact freely. And while Bitcoin has generally been a huge success, the cryptocurrency industry has not fulfilled its potential due to its dependence on the existing internet and Web2 infrastructure, as well as to the centralization intrinsic in some of the protocols. Ironically, the Ethereum Name Service (ENS) recently encountered a problem renewing its website address due to the arrest of one of the ENS founders.(11) While there is no verifiable way to know how much of the Web3 infrastructure is hosted on hyperscalers such as AWS and Azure, it's certainly a large percentage, putting these nodes at risk in case of such regulation.

Mining has become highly centralized because it requires specialized knowledge, low-cost electricity, and state-of-the-art hardware. The centralizing function is built into proof-of-work.

Firstly, only people who are relatively rich can afford mining equipment. Secondly, as miners improved their efficiency, they received increased rewards, which they used to buy more expertise and equipment, growing their power. The result is that today 91% of mining power is in just eight countries in the world, with 35% in the United States.(12) Changes in regulation in one or more of these countries could dramatically impact the industry as a whole.

The Tornado Cash regulations in the United States have shown just how much of a threat it is to have this level of centralization: in October 2022, more than 51% of the validation nodes refused to process Tornado Cash transactions, officially making Ethereum a censored Layer 1 protocol.(13)

OPPORTUNITY: LAYERING WEB3 TECH ON TOP OF WEB2

The challenges in the industry also point to opportunities. By taking the best of Web2 technology and adding built-in encryption, self-sovereign identity, Web3 tokenomics and governance, it is finally possible to build a truly decentralized internet.

The basic TCP/IP and DNS protocols have proven to be robust and reliable for decentralization. Using a DAO to govern these protocols is the first key to decentralization. The Decentralized Autonomous Organization (DAO) allows for true governance for the people by the people. Anyone who is a member of the DAO can make proposals, participate in discussions, and vote on policies of a new internet. It's no longer necessary to rely on a centralized authority, foundation, or government to take care of the safety and security of the web: people are now empowered to do so themselves.

In addition to the basic DAO structure, adding self-sovereign identity is key to preventing data brokers from taking advantage of people's data. When individuals hold wallets that provide them a single-sign-in, they no longer need to be reliant on Google or Facebook logins to manage their personal data on their behalf. Self-sovereign identity allows people to manage their own data, giving permissions according to their own personal preference.

Adding NFTs provides a layer of proof of ownership in terms of rights to a website, data, identity, and voting rights. Cryptocurrency offers a myriad of new business models which are not dependent on pushing advertising and leveraging people's most personal information.

Privacy and encryption protocols such as TOR and ZKP allow people to surf the new web with full privacy. People can remain anonymous or pseudonymous if they choose to, exercising their rights to privacy and freedom to interact as they wish.

Finally, it is clear that a sustainable ecosystem cannot exist merely on values, donations or goodwill. All key contributors to the ecosystem must be properly incentivized, and operate in a competitive environment in order to maintain and develop all hardware and software required to support the decentralized web.

Based on today's threats as well as today's technologies, tomi is leveraging the opportunity to provide a significantly improved web, one where people can interact safely and privately, and most importantly exercise their rights to freedom and liberty.

SOLUTION: TOMINET: THE PARALLEL WWW

The tomiNet solution provides a parallel internet that ensures decentralization of power, freedom of speech, information and property, and non-extractive business models.

tomi creates an alternative network to the world wide web infrastructure with several important unique features, most importantly the governing body through a DAO and privacy storage network that makes it impossible for the network to be captured, censored or subjected to pressure from large entities.

At the same time, tomiNet is not an ungoverned anarchy. One of the major roles of the tomiDAO is to regulate or block sites that violate community guidelines. The community guidelines represent a minimal baseline of human decency and morality, as conceived by the internet community. The guidelines are designed to eliminate the problems of the dark web by banning gratuitous violence, illicit pornography, and other extreme behaviors. The tomiNet is designed to be unblockable for legitimate activities, and open to even extremist opinions but not for harmful or extremist actions. The DAO will periodically update the community guidelines, and on an ongoing basis review claims against websites that violate the community guidelines. Appeals and reconciliation will be available for sites that repurpose to align with the community guidelines.

In addition, the tomiNet ecosystem provides a mechanism of incentives to enable all stakeholders to continue to operate and develop the network long after the founding team is gone.

tomiNet's goal is to allow people to:

- Access any website in the world, no matter where they are from, without limitations.
- Build their online presence, including Web2 and Web3 applications.
- Develop and operate internet businesses targeted to any country on earth without the risk of being blocked.
- Manage and own their digital identity, giving only the permissions they want by opt-in (rather than opt-out).
- Speak freely, either using their legal name, chosen name, or a pseudonym.
- Participate in the governance of the tomiNet, determining the guidelines and policies, as well as the day-to-day operations of the web.
- Protect themselves from surveillance of any kind.
- Protect their online presence from government and corporate reach, as well as from any type of censorship as long as they stay within clear written guidelines.
- Preserve their privacy both online, and when participating in the governance of the web itself.
- Own and benefit from their own hosting servers or use public servers that are fully protected from capture even from the cloud hosts who host the servers.

To accomplish these goals, the tomiNet includes the following capabilities, described in detail below:

- Internet protocol infrastructure.
- Governance against anti-human activities.
- Tokenized economy for independent internal funding.
- Independent DNS-based addressing system with NFT proof-of-ownership.
- DAO for management of the addressing system, policies, and protocols of the network.
- Zero-knowledge privacy for voters in the DAO to eliminate voter manipulation.
- Hardware for mesh networking.
- Onion privacy protocol for leverage of existing cloud networks while maintaining censorship resistance.
- Browser for easy access (and the ability to develop new browsers).

- Crypto payment system for transacting on the network.
- artDAO for designers of the Pioneers club NFT.

Together these elements add several additional anti-fragility elements and safeguards for a truly decentralized World Wide Web, eliminating the points of failure that led to today's centralized and captured WWW and the Darknet. The tomiNet is designed to navigate the proper balance between freedom and morality.

BASIS: EXISTING WWW INFRASTRUCTURE

The basic protocols of the world wide web, TCP/IP and DNS, have proven themselves resilient not just for the open internet, but for private networks (VPN). The tomiNet uses the exact same protocols, which means that there is no barrier to adoption.

All technologies that work on the web today will work on the tomiNet, and the only thing necessary is to use a browser that accesses the tomiNet instead of the default WWW by referring to the tDNS, instead of to the ICANN's, government controlled, DNS. The first set of addresses available will be *.tomi only, and the DAO will decide upon the proper timing for release of duplicate addresses of all of today's internet addresses.

The tDNS protocol (DNS protocol created for the tomiNet) is managed on the blockchain through NFTs that represent ownership of the URL, and the actual addresses are encrypted, so that no entity on the network will ever be able to block an approved address. The NFTs can be disabled through the governance DAO, only by consensus that the address violates guidelines that restrict only the most extreme content. Rather than a centralized service such as ICANN, or the DNS hosting services, tomiNet relies on a DAO, the tomiDAO. The tomiDAO is governed by its members, the initial Pioneers, as well as participants and token holders in the network. Pioneers membership is discussed in the tokenomics section.

CONTROLLED AND GOVERNED: NOT CENSORSHIP-FREE

Learning the lessons of the DarkNet, tomiNet is not creating a completely censorship-free web, but one where the citizens of the network decide whether a site violates the community guidelines, based on human moral values. Any Pioneer can make a claim that a particular website violates the community guidelines, and the tomiDAO members will vote on whether it is appropriate to ban the site.

The initial guidelines are as follows:

- Banning of terrorist and criminally violent sites.
- Banning of child pornography.
- Banning of widely-recognized illegal commerce such as arms and human trafficking.

To ban a site, the tomiDAO votes to disable the NFT associated with the site address. The site owner can take actions to repair the violation or the site will be blocked. After being blocked, a site can apply for reinstatement by the tomiDAO based on new content.

The tomiDAO can update the community guidelines.

BLOCKCHAIN

The founding team of tomi believes that transactions and balances must be private to ensure people's basic rights. The blockchain has developed on the basis of key essentials such as smart contracts and trustless technologies, and at the same time privacy preservation needs to be further developed. While the initial launch will base itself on today's best technology, the team continues to research possibilities for implementing zero-knowledge proof technologies in order to build a proprietary privacy-preserving blockchain.

Until a better solution is found, tomi leverages the Ethereum blockchain, using Starkware for privacy, fast transactions, and low transaction fees. The TOMI token is the native token of the tomi ecosystem. Pioneer NFTs are governance rights tokens that enable governance. In combination with the identity wallet, TOMI tokens and the Pioneers NFT provide a basis for flexible DAO-based governance. tomi's system will enable different forms of governance such as token-weighted voting, quadratic voting, one-person-one-vote, ranked voting, and other forms of participatory democracy.

ADDRESSING: tDNS

The tDNS system is tomi's alternative to the DNS governed by ICANN. tDNS is governed by the tomiDAO. DAO technology provides a significant improvement over the US-based ICANN which is limited to a small number of nodes, mainly under US jurisdiction, that determine the functioning of the DNS system. Domain names in the tDNS are minted as an NFT and are completely owned by their owners, although a royalty in the amount of 5% of the sale price will be payable to the project, as set forth below.

By creating a core DNS service governed by a DAO comprised of thousands of members, tomiNet eliminates the possibility of censorship, capture, or corruption.

The tDNS solution allows anyone to bid on any domain name they want at the standard price set for the domain names. Once a bid has been set, the domain is up for auction for 48 hours, and anyone who wants can make a bid on the domain within that time. The winner of the auction will receive the domain name for the price requested.

The initial minting will carry a minting fee payable by the initial minter, and the initial minter, even if outbidded and did not gain ownership of the domain, will be entitled to a compensation calculated as a percentage of the sale price royalty payable upon any sale of the domain, forever.

The initial sale price and the royalty fee will be divided between the initial minter (25% of the fee), the core team (35% of the fee) and the tomiDAO (40% of the fee).

tomiDAO

The tomiDAO will be in charge of all of the decision-making related to tomiNet. The tomiDAO will have several different categories of decision-making, each of which will have an appropriate process associated with the type of decision.

Voting in the tomiDAO can be done through zero-knowledge technologies, so that the voters are identified in terms of their right to vote, but it is impossible to know who voted or how they voted on any of the policy issues or individual websites. This fully decentralized and secret voting system protects the tomiDAO members from coercion or other forms of incentivization.

Anyone who is part of the tomiNet has voting rights in accordance with their commitment, token holdings, and the nature of the decision being taken.

To make proposals to the tomiDAO, the proposal initiator must hold at least one Pioneer NFT. Any Pioneer holder can submit (sponsor) a proposal on behalf of someone else, so that, in fact, anyone can submit a proposal as long as they have the backing of at least one Pioneer holder. This reduces the barrier to entry for proposal-making while ensuring there are some natural filters for proposals. Over time, the conditions may change, for example, requiring the support of five Pioneer holders, etc. The DAO itself will update its own governing procedures as the network grows.

Decision types include:

- Governance of the projects, including blockage of websites, domains and wallets, adding, removing and changing the incentives to contributing stakeholders, adding top level domains, etc.
- Changes to the DAO protocol, including decisions such as the required quorum, majority, voting period and guidelines.
- Using the DAO treasury (comprised on funds accrued from domain sales and royalties, tomiNet payment fees, and other income streams to be resolved by the tomiDAO).
- Allocation and oversight of the development fund.

Over time, the tomiDAO will have the ability to self-govern (change its own rules), and to add additional proposal types to the list of decisions that it can take on behalf of the tomi community.

The governance rights of each individual are based on their self-sovereign identity, their token holdings (TOMI utility tokens and Pioneer governance NFTs). The Pioneer NFT memberships are issued on a daily basis until such a time as the DAO will determine to change the issuance.

Once the network is well-established, it will be appropriate for the DAO to change the name of the membership NFTs from “Pioneer” to “Member” or some other denomination which indicates the NFT was issued by someone who took less of a risk than the initial pioneering contributors. By making this distinction, the DAO will be able to give different types of governing capabilities to original founding Pioneers versus members who joined later. The DAO will make its own judgment as to whether the Pioneers should have more or less power over time in the governance processes.

POLICY UPDATING PROCESS

Every six months the tomiDAO will set a period of discussion on the issues with the existing community guidelines, including domain name policies and censorship policies.

After a two-week discussion period, using tools like pol.is, the tomiDAO will identify the most widely-held opinions on what needs to be changed about the guidelines. Community members will then have two weeks to submit proposals to address the guidelines, and then use a ranked voting methodology. The top proposal that addresses each issue will then be brought to the tomiDAO for a final discussion period and voting on whether to adopt that proposal.

For example, it may be that a large number of people think that the policy on nudity needs to be changed. The top proposal would be the best one for addressing that issue. However, when the tomiDAO itself votes, it may decide the status quo is better than even the best proposal for change.

artDAO

Not only does tomi leverage the best of Web2 and Web3, the network also leverages the best practices and traditions of currency minting. As such, the TOMI tokens, while fully fungible, include artwork for every issuance of the token. Just as fiat coins and banknotes include beautiful artwork, tokens will include artwork as well.

The artDAO allows anyone to submit artwork for the daily token issuance. Membership in the artDAO is separate from membership in the tomiDAO (users can be members of both). The artDAO will use a contest-based DAO mechanism similar to JokeDAO to choose the daily winner for the artwork to be featured on the tokens for the day. The designer will receive 720 TOMI tokens, newly minted by the smart contract, per each auctioned Pioneer club NFT carrying their artwork sold.

The artDAO will also include a screening committee that ensures that the submitted artwork complies with the community guidelines (no derogatory, violent, or adult content) as well as prevent abuse in the artDAO. Active committee members split additional 180 TOMI tokens, newly minted by the smart contract, for each Pioneer club NFT sold. The artDAO committee can determine the mechanism by which they assess the artwork. Additional 180 TOMI tokens, newly minted by the smart contract, for each Pioneer club NFT sold will be divided between the voters on the winning design.

Artwork owner	720 TOMI tokens per Pioneer
artDAO committee	180 TOMI tokens per Pioneer
Voters	180 TOMI tokens per Pioneer

The artDAO can also be used to vote upon different designs in the tomi ecosystem, such as UI/UX product designs.

tomiBROWSER

The tomiNet browser makes it simple to browse the tomiNet exactly the same way that people browse the WWW. The tomi browser allows complete anonymity. Any site that wants to collect information on the user will need to explicitly ask for the information.

The tomiNet browser is based on open-source code from TOR, Brave, and Chromium. The browser allows the users to toggle between the tDNS and ICANN's DNS, so people can use the same browser for their regular browsing.

Creating a competitive browser is simple. Any developer can create their own browser and simply support the tDNS to allow access to the tomiNet. We encourage all browsers to support the tomiNet.

tomiPAY

Developers and website owners, operating on the tomiNet, will be required to support payments within the network using TOMI tokens. The use of TOMI as the native network token contributes to the viability of the network as a whole and the value of the tokens for the maintenance of the network itself. The TOMI tokens are resilient to censorship or blockage by governments or corporations because they operate with the tomiNet and blockchain rather than within a centralized framework.

To support payments in the tomi ecosystem, tomi is creating tomiPay, a multichain payment system that will support TOMI tokens, tomi Pioneer NFTs, and other digital assets. The system will allow digital merchants and service providers to accept TOMI and automatically swap it into different currencies or tokens preferred by the seller by using liquidity pool dApps and exchanges.

tomiPASSPORT - IDENTITY SOLUTION

The tomi passport will be a self-sovereign identity passport which is a privacy-preserving way for people to be able to use zero-knowledge proofs of their identity, reputation, or other information that is required for logins at different sites. Users will have the ability to decide what information to share, how long to share it, and where to store their own backups of their digital identities.

Digital identity is key for participation in the tomiDAO, as is preserving people's privacy. Participants in the system need an easy way to provide information to a variety of websites, without having those websites use that data in ways that do not align with fair data principles. Users will be able to maintain specific profiles and release data in a fully permissioned way. Data aggregators and researchers can request data from users, either as a paid service or a public good.

The initial wallet will be self-custodial. Application developers will be able to create alternative identity solutions as well as custodian and digital identity backup services that allow people to secure their digital information and leverage it in different ways.

MESH / CLOUD HYBRID NETWORK

tomi started with the development of easy-to-run hardware nodes that allow anyone to self-host and become part of the mesh network. However, it is obvious that for large-scale global support of data storage and computing power, professional cloud providers are a necessary component of the system. At the same time, to create a resilient and censor-resistant network, the servers cannot be subject to shutdown by the dominant hyperscalers.

tomi leverages The Onion Router Protocol (TOR) to encrypt all data, addresses, and communications on the tomiNet. By masking addresses and communications, it is possible to use any cloud provider without exposing what is being stored and managed on the network. Using this model, any host computer can be used for website and data hosting.

The tomi hardware technology will be publicly available for people and entities who want to host physical nodes. Similarly, tomi will publish hardware requirements and specifications for hosting nodes. The combination of cloud hosting and mesh hosting provides another layer of decentralization and resilience.

tomi NODES

tomi developed a Web3 native cloud computing node that can be run from anywhere to supplement the cloud network with a mesh network that is rewarded for the contribution to the network through TOMI Tokens.

Features of the tomi Cloud Server:

- Decentralized cloud hosting.
- Decentralized storage.
- Blockchain GPU mining.
- Consensus validation.
- VPN services.
- Proxy services.

tomi CORE TEAM

tomi is a decentralized project led by a core team which can be replaced by the governance DAO. The core team are a group of developers responsible for the development, operation and continuity of the project.

The genesis core team shall be tomi's founding team for the first term of 4 years. Following the genesis core team's first term, elections for the core team's nominations shall be held, and the DAO will elect the team members they consider appropriate for the following period of four years. The tomiDAO can also decide by supermajority to replace the core team or team members between terms if the team fails to serve the tomi ecosystem according to the DAOs wishes.

The core team will be responsible for all aspects of the project management that are not under the tomiDAO's direct responsibility, such as maintaining and developing the ecosystem and the community, developing new features and tools to increase decentralization, keeping track on the project's finance, marketing and sales endeavors, etc.

As a compensation for the core team's significant contribution to the ecosystem, the core team will be entitled to the following:

- A share of ~48.5% of the TOMI tokens minted as part of the daily auction of Pioneers club membership following the initial minting (as per the tokenomics below).

- A share of 36% of the proceeds receivable by the project from the first minting and sale of domains on the tDNS and from the royalties derived from any additional sale of domains on the tDNS (as per the tDNS section above).

TOKENOMICS AND TOKEN-BASED BUSINESS MODELS

The tomi network includes a fungible native TOMI token and a set of non-fungible Pioneer NFTs. The TOMI tokens are the native utility and transaction tokens, and the Pioneer NFTs are membership tokens representing the status of the holders as the initial Pioneers who have made the commitment to fund and support tomi in its initial stages.

The TOMI tokenomics system is designed to ensure long-term self-sustainability of the project, guarantee trust in and the longevity of the project and the ecosystem as a whole, to attract and retain users, and to offer compensation and rewards to the contributors and developers of the system.

An important aspect of an ecosystem is whether there is enough utility to provide a strong demand. In order to ensure demand for the tokens, the TOMI tokens include the following utility:

- DAO voting and delegation.
- Incentivizing key contributing stakeholders (including via the tomiDAO's treasury).
- Disbursements of the development fund (controlled by the tomiDAO).
- Payment for domain purchases and hosting.
- Payment on products and services in the tomiNet.
- Payment of fees related to the tomiNet and ecosystem.

The Pioneer tokens represent the status of the people who made the initial commitment and took initial risks to fund the tomi project in the form of monetary contributions in launching the network. Pioneer tokens will have specific governance powers that the TOMI tokens do not have, specifically the ability to make proposals to the DAO and to determine the technological direction and core tomi team. Over time, the DAO may change the governance structure.

As a growing economy, the tomi economic system is based on ongoing issuance of tokens rather than a fixed-issuance token model. The number of tokens to be issued is predetermined for the first five years. After the first five years, the DAO can change the token issuance policies through proposals supported by a minimum of 500 Pioneers/Members and a vote by a supermajority of TOMI tokenholders.

tomi TOKEN DISTRIBUTION

TOMI and Pioneer tokens will be distributed through an Initial Minting Event and then through daily ongoing minting. Every Pioneer issuance will have an associated TOMI issuance, plus issuance of TOMI tokens on an annual basis.

Initial Minting Event through Proof of Minting (PoM) mechanism:

- 1500 Pioneer NFTs issued to subscribers at the price of $3000 per Pioneer.
- The minting smart contract issues, for every Pioneer purchased, 18,000 TOMI tokens to the initial purchaser of the NFT, so the initial minting of Pioneers includes the initial minting of 27,000,000 TOMI tokens to the Pioneer holders.
- For every Pioneer minted, additional 8,000 TOMI tokens are minted to a wallet with designated funding for marketing costs, that is, an initial 12,000,000 TOMI tokens.
- For every Pioneer minted, another 39,000 TOMI tokens are issued to the genesis core team, developers, advisors and suppliers, totaling to additional 58,500,000 TOMI tokens.
- Marketing fund of 10,000,000 TOMI tokens for airdrops and community incentives.
- In addition to the above, a fund of 150,000,000 TOMI tokens will be issued, with a five-year vesting period for the founders and seed investors.

Ongoing minting events happen on a daily basis as the network grows. The following schedule is designed for ongoing issue of tokens:

- Daily Pioneer issuance after the initial minting includes 18,000 TOMI to each initial NFT holder, 17,000 TOMI to core team, 1080 TOMI to the artDAO, per each issuance.

- The daily Pioneer NFTs will be sold at daily auctions:

  Year 1: 3 Pioneers issued per day.

  Year 2: 7 Pioneers issued per day.

  Year 3: 10 Pioneers issued per day.

  Year 4 and beyond: 1 Pioneer (or membership) issued per day.
- Annual budgetary issuance: $10,000,000 equivalent in TOMI tokens will be minted each year on January 11 and issued to a designated wallet controlled by the tomiDAO. These funds can be used only for the support and development of the network itself, and cannot be used for distribution, investments, donations or any similar purpose.

The estimated total supply for the initial period of 5 years is ~597,000,000 TOMI tokens, of which:

- 18% will be issued to the founding team;
- 7% will be issued to seed investors and initial contributors;
- 33% will be issued to the core team, developers, advisors, marketing and additional suppliers;
- 42% will be issued to the public, distributors and the tomiDAO.

In the future, we anticipate that payments and services on the tomiNet will be carried out in TOMI, enabling Web3 business models that compete with the extractive Web2 models of data brokerage and advertising. Leveraging self-sovereign identity and cryptocurrency empowers people to own their own data and forces the organizations on the network to evolve their business models in ways that respect privacy and data sovereignty.

COMMUNICATION AND INFORMATION

Roadmap, development progress and additional information are available at our websites: www.tomi.com (at the WWW) and tomi.tomi (at the tomiNet), as well as our official social media channels.

REFERENCES

1. List of websites and apps blocked in China for 2022, Josh Summers, Travel China Cheaper, October 2002. https://www.travelchinacheaper.com/index-blocked-websites-in-china
2. CNA Explains: What do Indonesia's new licensing rules mean for tech companies? Nivell Radya, Channel News Asia, July 2022. https://www.channelnewsasia.com/asia/indonesia-tech-companieslicensing-regulation-facebook-google-twitter-2838886
3. Indonesia blocks Yahoo, PayPal, and gaming sites over new regulation, Mong Palatino, Global Voices, July 2022. https://globalvoices.org/2022/07/31/indonesia-blocks-yahoo-paypal-and-gaming-websitesover-new-licensing-rules/
4. Leaked Australian blacklist reveals banned sites, Asher Moses, The Age, March 2009. https://www.theage.com.au/technology/leaked-australian-blacklist-reveals-banned-sites-20090319-gdtfdx.html?page=fullpage
5. The New Censorship, Robert Epstein, US News and World Report, June 2026. https://www.usnews.com/opinion/articles/2016-06-22/google-is-the-worlds-biggest-censor-and-itspower-must-be-regulated
6. Google blacklists entire internet, Caroline Davies, The Guardian, January 2009. https://www.theguardian.com/technology/2009/jan/31/google-blacklist-internet
7. The Social Dilemma, Wikipedia. https://en.wikipedia.org/wiki/The_Social_Dilemma
8. The Age of Surveillance Capitalism, GoodReads. https://www.goodreads.com/book/show/26195941-the-age-of-surveillance-capitalism
9. It's Not Just Autocracies—Democracies Also Censor the Internet, Paul Bischoff, CEPA, May 2022. https://cepa.org/article/its-not-just-autocracies-democracies-also-censor-the-internet/
10. NCLA Takes on US Surgeon General's Censoring of Alleged Covid-19 "Misinformation" on Twitter", Bloomberg, March 2022. https://www.bloomberg.com/press releases/2022-03-25/ncla-takes-on-u-ssurgeon-general-s-censoring-of-alleged covid-19-misinformation-on-twitter
11. Web3 Domain Name Service Could Lose Its Web Address Because Programmer Who Can Renew It Sits in Jail, Elizabeth Napolitano, Margaux Nijkerk. Coindesk, August 2022. https://www.coindesk.com/tech/2022/08/26/web3-domain-name-service-could-lose-its-web-addressbecause-programmer-who-can-renew-it-sits-in-jail/
12. These Are the World's Top Bitcoin Mining Countries, Globely, December 2021. https://globelynews.com/world/world-top-bitcoin-crypto-mining-countries/
13. Censored Ethereum Blocks Hit 51% Threshold Over the Past 24 Hours, Margeaux Nijkerk, CoinDesk, October 2022. https://www.coindesk.com/tech/2022/10/14/censored-ethereum-blocks-hit-the-51- threshold-over-the-past-24-hours/