V1.03

# The Ether-1 Project Whitepaper

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## 1. Important Links:

| | |
|---|---|
| Official Website: | https://www.ether1.org |
| Block Explorer: | https://explorer.ether1.org |
| Online Wallet: | https://wallet.ether1.org |
| Network Statistics: | https://stats.ether1.org |
| Node Dashboard: | https://nodes.ether1.org |
| ethoFS – Testnet Statistics: | http://ethofs.com |
| ethoFS – Hosting and Uploads (BETA) | https://uploads.ethofs.com/ |
| Admin Email: | admin@ether1.org |
| Ether-1 Project Calendar: | https://ether1.org/calendar/ |

## 2. Abstract:

The Ether-1 Project aims to completely disrupt how information is shared and controlled on the internet. It aims to decentralize all information while giving all individuals the ability to control and secure their own data.

Imagine a world where social media content was completely held in the public domain and was 100% immutable. Imagine a voting system that was completely un-hackable and run with complete transparency. Imagine a version of the internet where the Googles, Facebooks and Amazons didn't control a vast majority of all web content and traffic flow. The idea of a completely decentralized, democratized web is not only a utopian dream but now achievable. Our project aims to bring all this together by providing a streamlined, completely decentralized development and content hosting platform that is usable by anyone.

## 3. Disclosure

The Ether-1 Project has no ICO or pre-sale, no pre-mining of any coins or any other methods of obtaining coins prior to the main-net launch. This document has been created to outline our vision and direction for this project and meant to be read in conjunction with our website and

other available media. Nothing herein constitutes an offer to sell, or the solicitation of an offer to buy, any tokens, nor shall there be any offer, solicitation or sale of anything in any jurisdiction in which such offer, solicitation or sale would be unlawful. Although this document contains our current vision for the project, this vision will be ever-evolving as blockchain technology is still in its infancy and constantly evolving itself.

## 4. The Problem

The problem is that our digital identities have been increasingly exposed to attacks and misuse by hackers and custodians alike, while most of us are unaware of the fact that such identifies even exist, or why they're important and how they can be used against us. As we keep moving into the direction of an information based society, we need to fundamentally change how we interact with and see our digital identities. We need to take back control of our personal information and protect it from all third parties that can misuse it.

Society as a whole has a very flawed sense of how we use data and information security. We have become incredibly reliant on the internet for this information yet the need to protect it has not evolved as quickly as the internet itself. Imagine if all the information in recent social media data breaches was held in the public domain. This information could be disseminated based on public consensus and not based on a flawed security profile or by anyone's individual needs. Imagine if societies facing information and internet censorship were able to access anything they wanted as this information was not being hosted on any single computer or network, subject to an overreaching government's corruption, whilst all computers and networks were freely accessible to anyone who wanted it. We need a streamlined solution to decentralize the holding of public data and that is what this project can offer the world.

## 5. Technology & Methods

We will be using a fork (using the same code-base, but different ledger/chain) of the Ethereum protocol to base our network on. The network will use the popular Ethash proof-of work (PoW) algorithm for consensus generation and will evolve with any up-stream Ethereum protocol

changes as we see fit. The backbone of the consensus and economic systems will operate upon our tradeable currency (ETHO). This currency will offer the incentive to both publicly contribute to the consensus mechanism along with incentivizing people to operate their own node (Masternode or Service Node). It will also power the future application-specific node system that allow for enterprise scale decentralized applications to be deployed and maintained on the Ether-1 Network.

Using the Ether-1 Node system, we will be able to offer better stability and decentralization while providing the storage and network bandwidth needed to operate our content sharing protocol between these nodes for data access (similar to Ethereum's own Swarm Protocol). Our first application-specific node type to be deployed will provide the opportunity to host websites on our decentralized network and be directly identifiable and accessible via a DNS-like service. We will be providing a custom top-level domain (similar to Ethereum's ENS and .eth domains) that directly identifies hosted data via the blockchain and system of decentralized nodes. To an end-user it will be very similar to most classical hosting services (centralized) but will give them a fully decentralized solution that is identifiable by a very unique top- level domain. In the end, a user's data will be hosted almost everywhere instead of one single place with one single point of failure.

The Ether-1 Project doesn't want to only be a technological solution to a problem so incredibly influential in the human arena but also bring democratic principles back to many applications and systems that affect our daily lives. To that end, the project will aim to provide a shining example of active, informed democratic participation principles in action. We will accomplish the technological vision described above while building an active, merit based, grass roots community of Ether-1 enthusiasts. This community will be called upon frequently for feedback regarding the project progress and direction, as well as to ask for assistance with many community driven initiatives.

## 6. Network Specifications

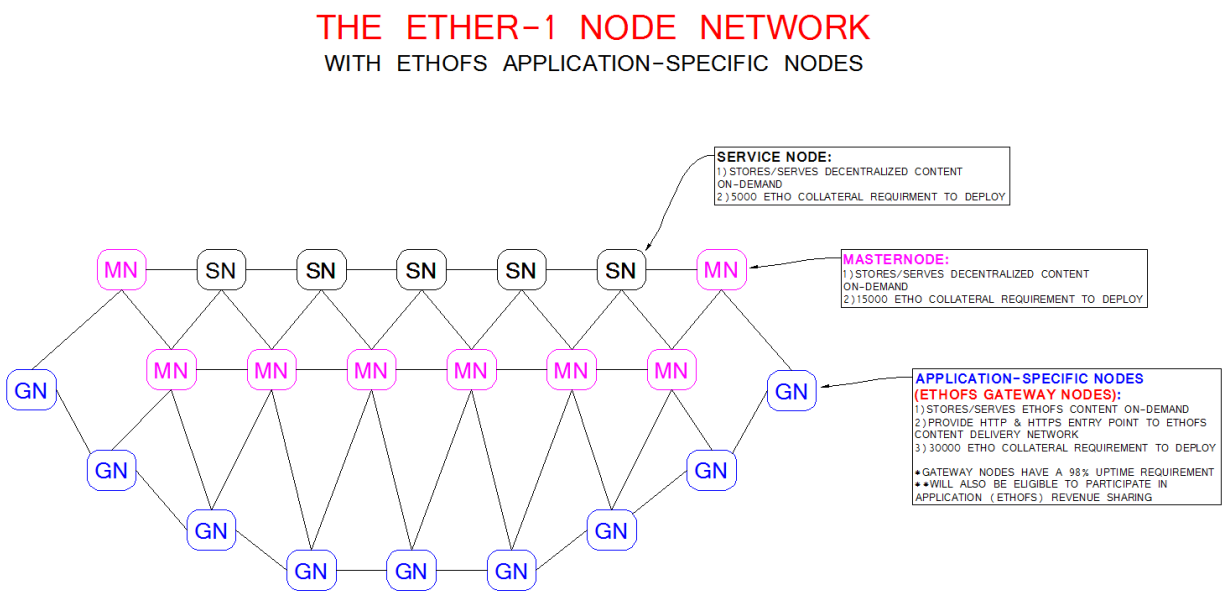
| | |
|---|---|
| Algorithm: | Ethash/Dagger (Proof-of-Work) |
| Target Block Time: | 13 Seconds |
| Total Block Reward: | 9.4 ETHO (adjusted since launch; review Monetary Policy for full breakdown) |
| Miners' Block Reward: | 6.4 ETHO / Block |
| Masternode Reward (split 8 shares for GN, 4 shares for MN, 1 share for SN): | 2 ETHO / Block |
| Ether-1 Treasury Deposit: | 1 ETHO / Block |
| Network ID: | 1313114 |
| RPC Server: | https://rpc.ether1.org |

## 7. The Ether-1 Node Network (Masternodes & Service Nodes)

The Ether-1 Node Network is used to promote decentralization and network security by providing the decentralized computational resources it needs to function. Network decentralization is critical to data and informational security and Masternodes are a very useful protocol to give us these things.

Masternodes and Service Nodes hosted by various independent ETHO holders effectively provide distributed computational and storage capacity to the Ether-1 Ecosystem of distributed services. The network incentivizes anyone who chooses to reliably operate a masternode of sufficient size and bandwidth in return for providing these resources and network decentralization. Masternodes require a collateral of 15,000 ETHO held in an Ether-1 address. The resource requirements to operate an Ether-1 Masternode are 40GB of available storage, 2GB of RAM and a static public IP address. Ether-1 Service Nodes require 5,000 ETHO and 20

GB of available storage, 1GB of RAM and a public static IP address. The complete setup guide is posted on the Node Dashboard section of the Ether-1 website (https://nodes.ether1.org).




The above Image is an image depicting the use of Service nodes Masternodes and Application-Specific Nodes (ethoFS Gateway Nodes) on the Ether-1 Node Network.

## 8. Application Specific Nodes

The Ether-1 Network will eventually support many different decentralized platforms that are of everyday use to most people that utilize application-specific nodes that have been deployed across the network. EthoFS is the first example of decentralized application-specific nodes being deployed on the Ether-1 Network to support a decentralized content and website hosting platform.

EthoFS combines the Ether-1 Masternode/Service Node technology with IPFS (InterPlanetary File System) to deliver decentralized content on a scale not seen before. Users will be able to upload content or a website via a simple user interface to be hosted with ethoFS in a decentralized fashion so their data is stored in a decentralized manner across the node network and securely indexed on the Ether-1 Blockchain.

## ethoFS and Application Specific Nodes

The first application-specific nodes being deployed onto the network are ethoFS Gateway Nodes. EthoFS is a decentralized website and content storage/delivery platform. The Gateway Node system utilizes additional proprietary security protocols along with the existing IPFS based Ether-1 Masternode and Service Node network to store, propagate and deliver content to end users. This platform will replace typical centralized web hosting platforms by seamlessly integrating into existing mainstream internet protocols while maintaining all the benefits that complete decentralization brings to the system.

Existing security and DNS protocols will be addressed with custom-built ethoFS consensus based systems that allow for network wide information/data sharing and agreement based on the use of CRDTs (Conflict-Free Replicated Data Types). CRDTs are used to store and propagate information across the node network allowing all nodes to be aware and up-to-date with all necessary information and network functionality. To the everyday user, ethoFS hosted websites will look and feel very similar to everything else on the internet with the exception of absolute immutability, un-censorable and most attack vectors approaching a probability-of-occurrence level of zero. DDoS attacks will become a relic of the past as information will now be propagated around the globe via the Ether-1 Node Network at almost instantaneous speeds. A user's data will be hosted almost everywhere, greatly increasing the accessibility, security and availability due to the vast node network on which it is stored.

## Why is Decentralized hosting on ethoFS such a big deal?

Immutability, zero censorship and attack/DDoS resistance are just a few of the benefits. Hosting a website or application via a decentralized solution closes most attack vectors and makes if far too expensive for any nefarious actor to attempt attacking a decentralized website or service. This alleviates one of the major problems/costs companies have to deal with today while using a normal centralized hosting service. Several governments and large corporate entities choose to filter and/or censor the content you are able to see. A decentralized delivery of this content could allow for uncensored and freer flowing information.

## What will it cost to use the ethoFS system?

Specific costs have not been decided/determined yet but when we have reached full deployment, a user will be able to upload their content via a decentralized application and pay for the service with ETHO. The cost will be based on the storage space required by the content

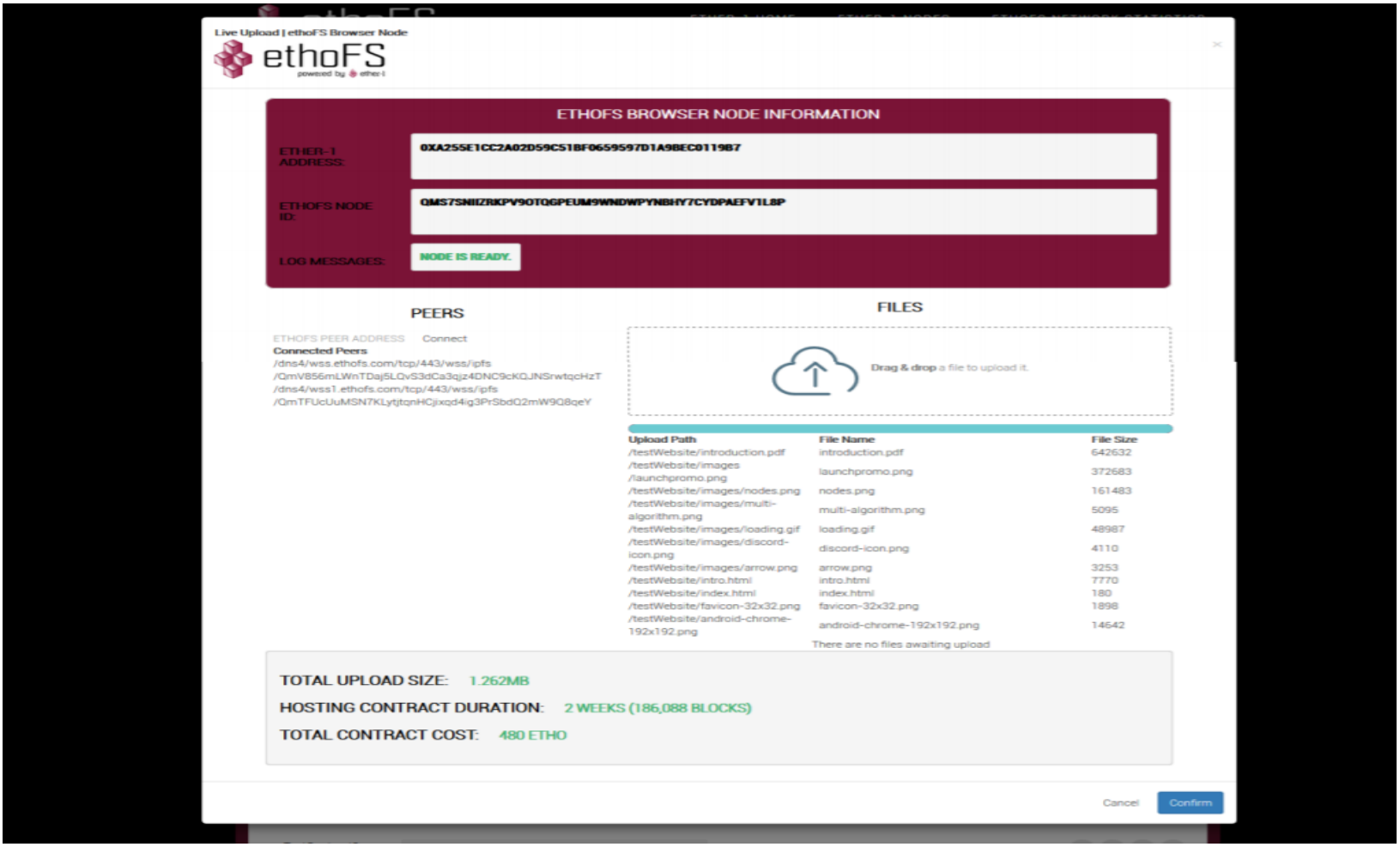
uploaded and the user will be charged a periodic fee (in ETHO) for as long as they want that content available on the network.

### Is the ethoFS System Currently Live?

The content you are currently viewing is being delivered to you via a multi-node ethoFS test-net to show proof-of-concept. Ether-1 will be leveraging Masternode owners to participate in a alpha testing phase of the ethoFS node deployment system to assist the development team in pushing this project forward.  The project will use a phased approach to get the ethoFS system deployed and will utilize community members as much as possible throughout the process.

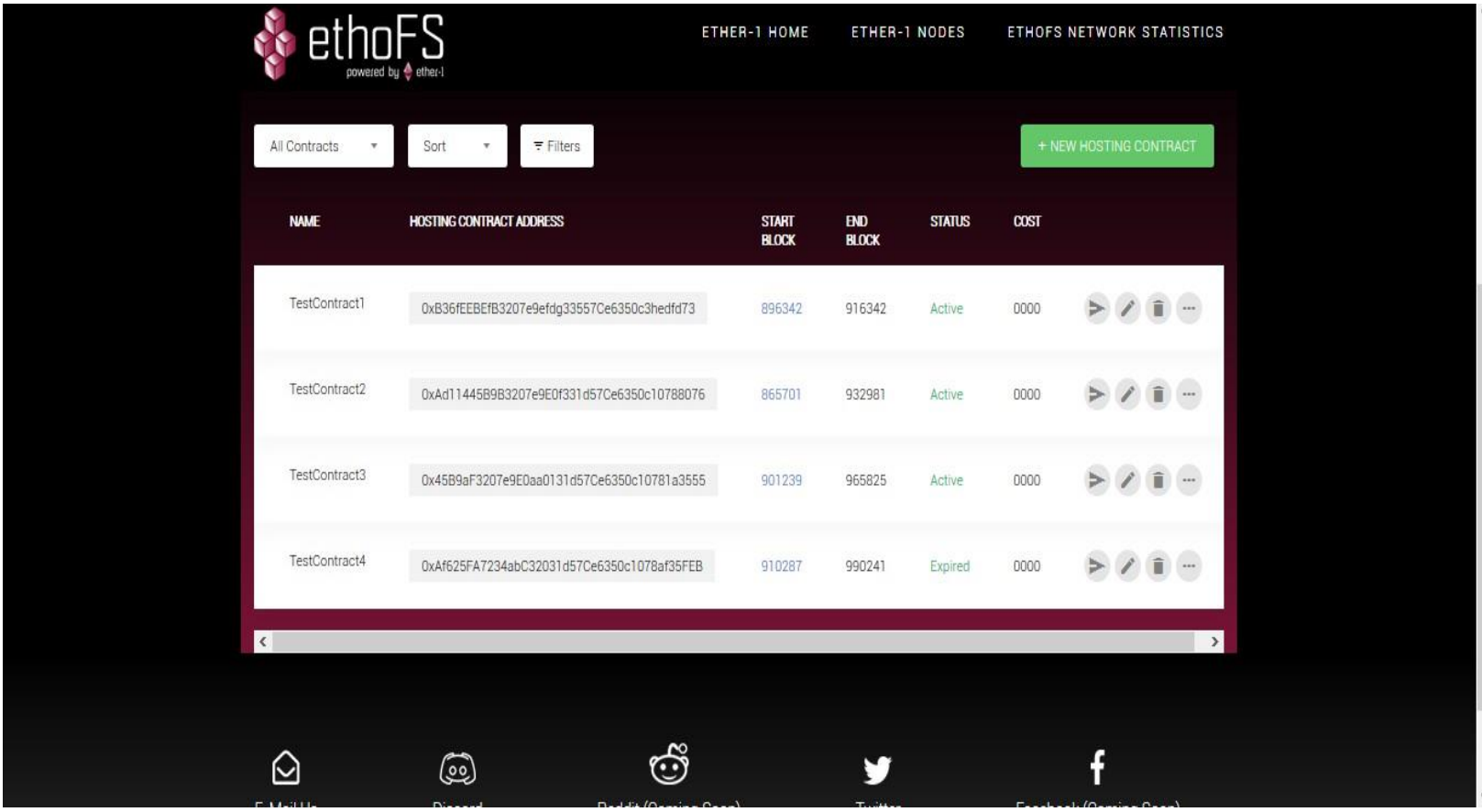
### Do you have any pictures of the ethoFS dashboard?

The images below are of an alpha product they might look slightly different in beta and final release as the system is evolving daily.



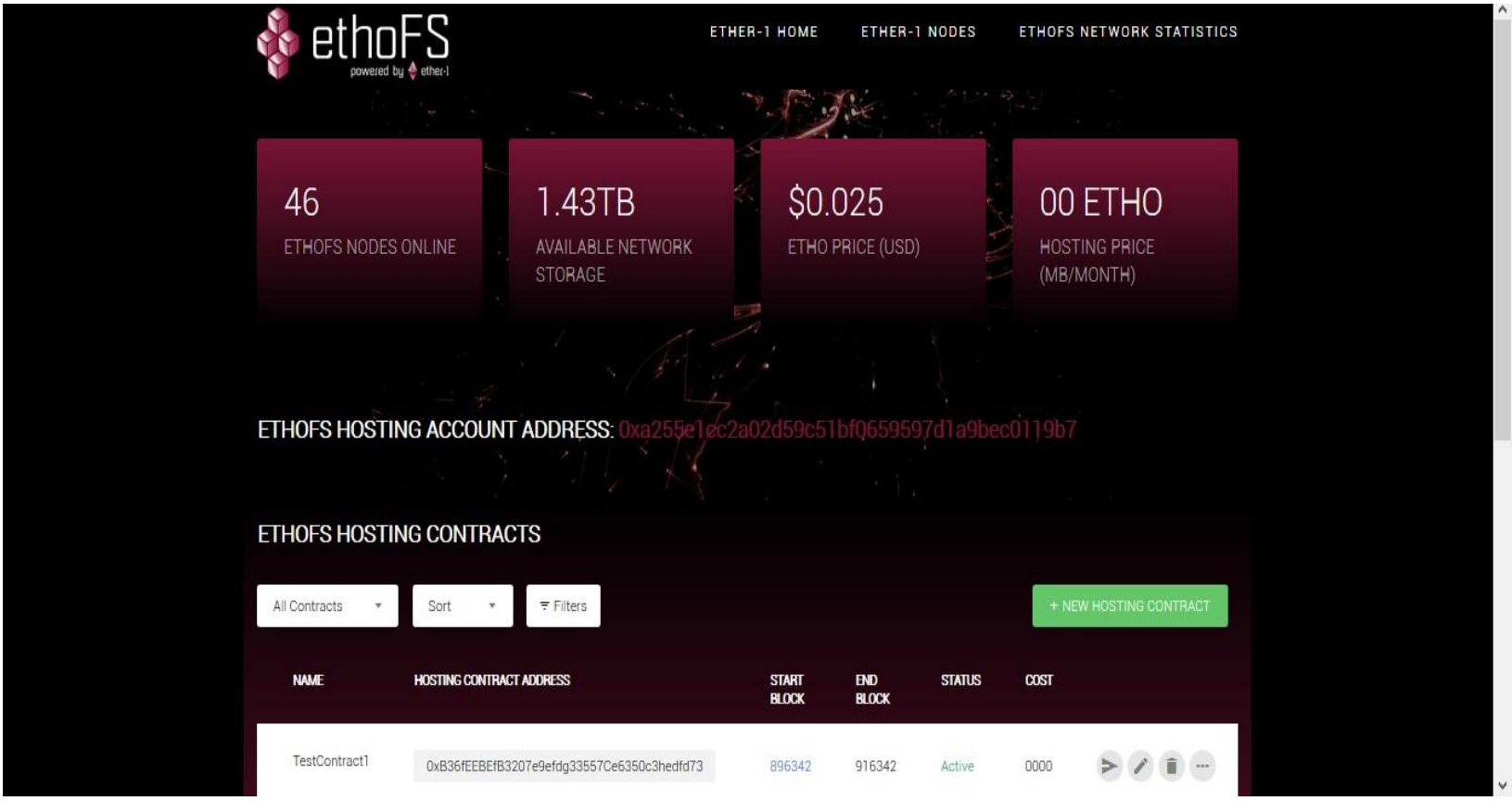

The above image is of the ethoFS Upload and Contract page. In this image you can see the amount of ETHO it will cost to host the website and the amount of time the website will be hosted on the network (in time and block duration).

Image 2:




In the above image you can see the user dashboard in which contains information about your current contracts for hosting content on ethoFS, as well as the start and end blocks, the cost and status.

Image 3:




In the above image you can see the number of ethoFS nodes online, the total available storage and the price of storage per MB (in ETHO) on the ethoFS network.

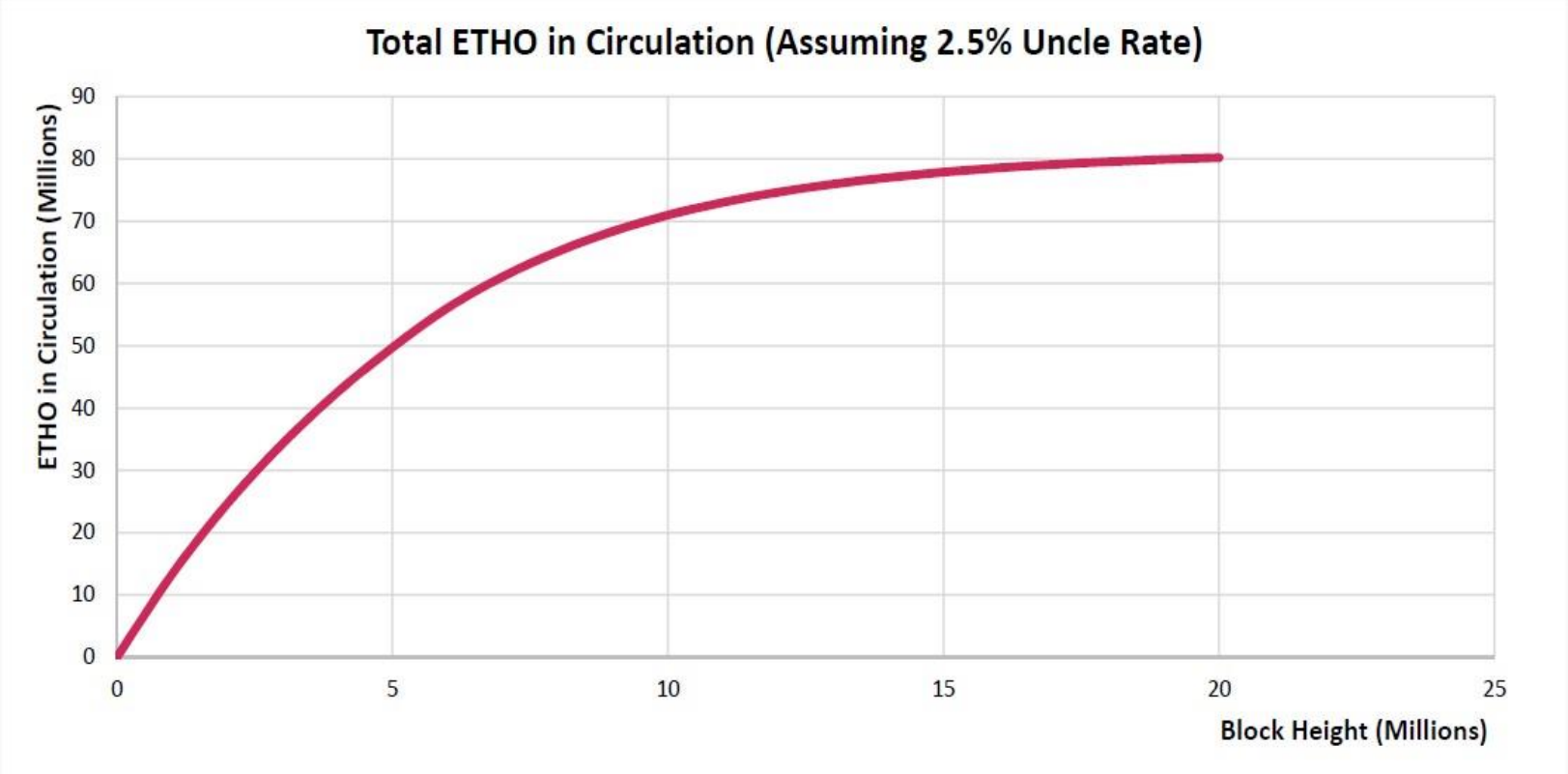
Note: To view the very first deployed informational website on the ethoFS network visit http://ethoFS.com. This webpage is hosted on the ethoFS network as well as all videos and pictures displayed on the site.

## 9. Monetary Policy

Ether-1 will impose a soft cap of approximately 85 million ETHO by implementing a block reward reduction schedule. Every one million blocks the reward will be reduced in order to reduce the overall emission of coins. This will continue until block 20 million at which time a decision on how the coin will be made on how to continue to reward masternode/service node operators. This point is estimated to occur after July-2022. Ether-1 will continue to work to control deflation of the coin while taking all other aspects of the project into consideration.

| Block Height | Mining Reward | MN/SN Reward | Dev Reward | Total Reward | Mining % of Reward | MN % of Reward | Total ETHO in Circulation (Assuming 2.5% Uncle Rate) |
|---|---|---|---|---|---|---|---|
| 0 | 10 | 2 | 1 | 13 | 77% | 15% | 0 |
| 1000000 | 8 | 2 | 1 | 11 | 73% | 18% | 13325000 |
| 2000000 | 6.4 | 2 | 1 | 9.4 | 68% | 21% | 24600000 |
| 3000000 | 5.1 | 2 | 1 | 8.1 | 63% | 25% | 34235000 |
| 4000000 | 4 | 2 | 1 | 7 | 57% | 29% | 42537500 |
| 5000000 | 3.2 | 2 | 1 | 6.2 | 52% | 32% | 49712500 |
| 6000000 | 2.5 | 1.6 | 0.8 | 4.9 | 51% | 33% | 56067500 |
| 7000000 | 2 | 1.3 | 0.65 | 3.95 | 51% | 33% | 61090000 |
| 8000000 | 1.6 | 1.04 | 0.52 | 3.16 | 51% | 33% | 65138750 |
| 9000000 | 1.3 | 0.83 | 0.415 | 2.545 | 51% | 33% | 68377750 |
| 10000000 | 1 | 0.66 | 0.33 | 1.99 | 50% | 33% | 70986375 |
| 11000000 | 0.8 | 0.53 | 0.265 | 1.595 | 50% | 33% | 73026125 |
| 12000000 | 0.65 | 0.42 | 0.21 | 1.28 | 51% | 33% | 74661000 |
| 13000000 | 0.52 | 0.34 | 0.17 | 1.03 | 50% | 33% | 75973000 |
| 14000000 | 0.42 | 0.27 | 0.135 | 0.825 | 51% | 33% | 77028750 |
| 15000000 | 0.34 | 0.22 | 0.11 | 0.67 | 51% | 33% | 77874375 |
| 16000000 | 0.27 | 0.18 | 0.09 | 0.54 | 50% | 33% | 78561125 |
| 17000000 | 0.22 | 0.14 | 0.07 | 0.43 | 51% | 33% | 79114625 |
| 18000000 | 0.18 | 0.11 | 0.055 | 0.345 | 52% | 32% | 79555375 |
| 19000000 | 0.15 | 0.09 | 0.045 | 0.285 | 53% | 32% | 79909000 |
| 20000000 | 0.12 | 0.07 | 0.035 | 0.225 | 53% | 31% | 80201125 |

The above image is of the Block reduction schedule.




The above image is of ETHO circulating supply - Total Currency Supply VS Block Height

## Why is an Ether-1 block reward reduction important?

As the Ether-1 Masternode/Service Node System is now active, the team decided it was time to analyze the ETHO emission rate and how to responsibly cap the supply in circulation, all while further enticing node ownership and not hampering development of the project in any way. It is not healthy for any economic ecosystem to have an unlimited supply of currency as this will always push inflation to uncontrollable levels and destabilize the system.

## How does this affect the future of Ether-1?

A larger block reward percentage allocation for node owners will help further our goal of complete decentralization. We looked at the ETHO emission rate with two major goals in mind. First, we wanted to re-allocate a larger percentage of the block reward to masternode owners as they will be providing an increased value to the network over time.
This was done by slowly decreasing the miner reward while leaving the masternode reward unchanged for the first 6 million blocks. Second, we wanted to slowly decrease the overall block reward over time, adding a healthy supply cap to the currency to control long term inflation. This will be accomplished by decreasing all rewards at a steady pace (every one million blocks) starting at a block height of 6 million. Taking a look at the reward reduction schedule, this will effectively give ETHO a supply cap of just under 85,000,000 coins (assuming an uncle rate of 2.5%).

A very quick summary of the Ether-1 Monetary Policy.

- Allocates a larger reward percentage to node owners over time
- Currency supply cap of just under 85 million ETHO
- Block reward decreases every 1 million blocks

## 10. Ether-1 Ecosystem & Community Participation

While the Ether-1 Project works to completely disrupt the nature of how services are stored, distributed and provided on the internet, we will also work on providing the same level of innovation and robustness to how the project operates on a social level. A vibrant community comprised of proven, passionate and professional individuals will be the primary building block for new systems of self-governance that will be built into Ether-1. The goal of such systems will be to provide decentralization on a human level by taking the time-proven concepts of separation of duties, democratic debate and elections.

## 11. Road Map

| Description: | Timeframe: |
| --- | --- |

| | |
|---|---|
| Branding/Website | Complete |
| Network Explorer | Complete |
| Desktop & Web Wallet | Windows and Linux are complete. OSX is still ongoing. |
| Mining Pools | Complete |
| Exchange Listings | Mercatox, Graviex, Stex, Safe.trade, Cryptowolf and ChainEX - Complete.<br>More exchanges will be added as time progresses. |
| Basic Masternode Deployment | September 2018 – Complete (Masternodes & Service Nodes Are Live) |
| Additional Wallets (IOS, Android, etc.) | Android – Complete<br>IOS – BETA testing. |
| Decentralized Hosting Solution Development<br>Alpha Testing of ethoFS Nodes<br>Development of ethoFS Hosting Front-End | Complete. |
| Gateway Node Testing/Development<br>Gateway Nodes Will Support All Application Specific Responsibilities of Decentralized Hosting<br>Gateway Nodes Alpha/Beta Testing<br>Begin of Public Content Hosting Test | Complete.<br><br>Complete.<br><br>Complete – (BETA) |
| Advanced ethoFS Deployment<br>Gateway Nodes to Be Deployed<br><br>Expansion of Public Content Hosting | Complete.<br>Complete – (BETA)<br><br>Ongoing – Live (BETA) |
| Entity Structuring & Top Level Domain<br>ethoFS Network To Be Fully Operational<br>More Advanced Application Deployment | 2019 |

| | |
|---|---|
| (Forum, Social Media Platform)<br>Corporate/Business Entity Structure Strategy Begins.<br>Governance System.<br>Community To Help Decide on Future Direction | |

## 12. Supported Exchanges & Applications

**Exchanges (In order of listing):**

https://stex.com – Stex

https://mercatox.com - Mercatox

https://graviex.net – Graviex

https://www.safe.trade/ - Safetrade

https://chainex.io/ - ChainEX

https://cryptowolf.eu/ - CryptoWolf

## Applications (No Specific Order):

https://www.ledger.fr/ - Ledger

https://www.trezor.io/ - Trezor

https://www.getdelta.io/ - Delta App

https://coinlib.io/ - Coinlib

https://www.livecoinwatch.com/ - Livecoinwatch

https://www.crypto-coinz.net/ - CryptoCoinz

https://masternodes.online/ - Masternodes Online

https://www.coincalculators.io/ - CoinCalculators

http://www.multiminer.us/ - MultiMiner

https://mycryptostats.com/ - My Crypto Stats

https://blockfolio.com/ - Blockfolio

## 13. Social Media Accounts:

## 14. Extra Links and Information:

https://www.youtube.com/watch?v=7O_aliiA5ws - A video created by Fallen Gravity giving a walk through guide on how to create a Masternode or Service Node using OSX.

https://www.youtube.com/watch?v=MZop_Q_vDp4 - A video created by Rizkit4DBizkit giving a walk through guide on how to create a Masternode or Service Node using Windows.

https://www.youtube.com/watch?v=1zEv-y8FwDQ - A video created by notyournormalminer giving a walk through guide on how to upload content using ethoFS.

## 15. Conclusion:

We have identified a very complex issue plaguing our society today and this project aims to very directly address and fix this problem. By leveraging a great team, existing and new technologies and the power of public consensus we will be able to change not only the way we store and access data, but will fundamentally change how this data can and will be used.

Special Thanks:

@Primate411, for helping us with this Whitepaper