



WHITEPAPER

# ODIN

ECOSYSTEM





# ODIN Blockchain

Whitepaper v0.1

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# 1 Preface

Cryptographic currencies and decentralized blockchain environments are increasingly pervading industries and society, but still not massively adopted nor in general use. In addition, crypto projects have not typically focused on the mobile environment and privacy is considered a ‘nice to have’ feature.

ODIN aims to address all these concerns. It will do this by:

- building a mobile-focused development platform
- creating decentralized applications (Dapps) built on this platform
- having privacy as a core feature.

The core of ODIN is its community. ODIN will focus on four main communities: the infrastructure community, the Dapps community, the end user community and the entrepreneurial community; all of which require their own information and have different motivations and needs.

- A committed infrastructure community will provide the backbone of masternodes and staking wallets to ensure resilience, agility and function
- The Dapps community will provide development in the form of applications to be run by the ‘end user’ community
- The end user community is our target audience. They download and use the applications built and running on the ODIN Blockchain
- The entrepreneurial community are interested in ODIN’s potential for creating a solution to a known problem and developing this into either a profitable business model or a not-for-profit solution for the common good. Much like the infrastructure community, this community could likely hold a large stake in the network.

Developing a Dapp community will help meet ever changing end user needs by creating decentralized applications to enable growth into areas of society where blockchain solutions are needed but not yet provided. One way this Dapp community will be supported is with a range of instructional toolkits and additional support functions. Usability will be at the forefront of every decision, toolkit and tutorial we provide (see [The Solution](#)).

A large, diverse and vibrant end user community is the life blood of a utility oriented environment. Adoption patterns guide developers and the service fees resulting from their activity contribute towards the sustainability of the ecosystem as a whole.

The consequential impact of the previous three communities (infrastructure, end user and developer) will ensure continued investment and interest from the entrepreneurial

community, and their continued interest in turn yields constant new interest and development within other communities.

## 2 The Problem

*“At every door-way,  
ere one enters,  
one should spy round,  
one should pry round,  
for uncertain is the witting  
that there be no foeman sitting,  
within, before one on the floor.”*

---

intro, Hávámál

ODIN understood the importance of Wisdom. The Völuspà describes him in the act of sacrificing one of his eyes in exchange for a single drink from Mimir’s well of Wisdom, and thus becoming wiser himself as well.

### 2.1 Privacy

In today’s digital age, we find parallels to this. ODIN Blockchain intends to shield the proponents of liberty of thought and ideas from the vision of these aforementioned “foemen” and their prying eyes. As Odin sacrificed part of his vision in exchange for knowledge, we plan on obscuring from vision your private conversations and exchanges of thoughts and knowledge.

Governmental and private institutions are becoming increasingly more adept at gathering data on citizens. It has, in fact, become both a [science](#) and a [business](#). What data to gather and analyze it for practical use. [The contemporary media](#) is full of articles on how [lines are being crossed](#) and how grey areas lack definition. In addition, passed legislature is allowing for such wide digital surveillance on citizens without justifiable cause, that the old adage “innocent until proven guilty” no longer even applies. These laws appear to assume malicious intent from each and every citizen, allowing surveillance on a level that presupposes that we are already suspects in ongoing investigations.

By removing the threat of persecution or worse from the equation, we are encouraging people around the world to contribute to our collective development without fear of censorship.

We believe that, in order to enable a healthy exchange of ideas and thoughts, freedom from persecution and sanctions must be guaranteed when people exercises their simple right to speak.

Unfortunately, not all institutions around the globe; governmental, private or otherwise, agree with this. Some wish to suppress the exchange of ideas, as it could pose

a threat to the powerful. We consider this to be unhealthy for human development as a whole; not just politically, but technologically, spiritually and philosophically as well.

Globally, there is an [abundance of dissidents](#) that are not allowed to speak under threat of severe consequences to their lives and possibly more.

The ODIN Blockchain will operate in line with Article 17 of the [International Covenant on Civil and Political Rights](#) of the United Nations of 1966, stating that: “No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.”

In addition, large corporations today have a massive points of vulnerability: their centralized control and storage systems delivered by server farms. All data is routed through them, stored for years due to the widely imposed [Data Retention](#) Laws, and consequently may be subjected to searches from governmental agencies or even mined by the corporations themselves.

This approach is also increasingly compromised with malicious intent. One can list a litany of such hacks, including at least [500 million accounts](#) that had been stolen from Yahoo or [145.5 million people](#) that were compromised in a breach through Equifax.

With ODIN applications, this would be an impossibility. We have a decentralized network of servers where all data that is routed through masternodes is anonymized.

## 2.2 The Internet is Progressively Going Mobile

By and large, the greatest threat to one’s personal online data and digital fingerprint is because of the development of technologies which allow ease of use. This same ease of use makes it very easy for one to forget exactly how much information is stored and accessed on their mobile devices.

Globally, [7.9 billion mobile phone subscriptions](#) were active during Q1 of 2018. Mobile internet traffic [increased by 54%](#) between Q1 2017 and Q1 2018.

Mobile devices have become an integral part of the average person’s daily routine. From reading the news on a daily commute to performing online payments, to contacting others through calls and text.

The great ease and comfort a mobile device provides lulls one into a false sense of security where it is easy to fall victim to a range of issues including but not limited to:



- Website URLs that are not displayed in full by default, increasing the risk of a user entering a malicious site
- Popup windows that start to run in the background
- Applications that ask for more permissions than necessary without expanding on why they require it

In addition, the underlying operating systems of mobile devices are less understood by users compared to PCs and laptops, especially with regards to how much private and personal data is actually held or accessible through a smartphone.

In conclusion, the problems we have defined are:

- Privacy infringement by governmental agencies
- Privacy infringement by private institutions as the recent [Cambridge Analytica](#) scandal which attempted to influence voters through data mining personal information
- Censorship, as opposed to free speech, even going so far as physically abusing and threatening families of dissidents
- A distinct lack of private cyber security measures specifically when it comes to mobile devices
- The centralization of data, which increases the risk of hacks compromising millions of individuals
- A single compromised device can bypass all security measures one has taken across multiple devices.

As privacy, anonymity and cyber security are the three key points necessary to ensure a user's device safety, we have opted to encapsulate all three of these points under one ODIN ecosystem.

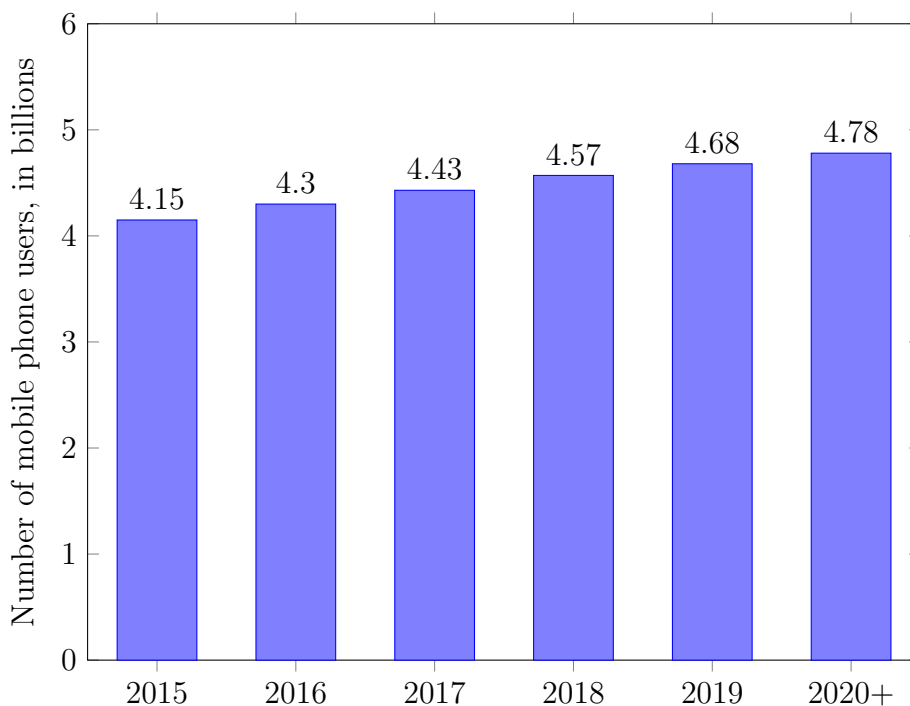
### 3 The Solution

People have a decent understanding of how to secure their PC and/or laptop. Most people will run an antivirus program, have their firewalls active, and exercise common sense to know what is safe to download and what is not.

However, as stated previously, the majority of internet access today is no longer from desktops or laptops, but rather by mobile devices. In 2015, [Google reported](#) more than 50% of all searches were done on a mobile device in 10 countries, including the US and Japan.

This exceeded the amount of desktop searches for the first time in history.

According to StatCounter, starting in November 2016 general mobile internet usage [surpassed 50% of web traffic](#).



Number of mobile phone users worldwide from 2015 to 2020 (in billions, [Statista.com](#))

Coupled with the [low entry threshold](#) a mobile device provides increased use of mobile devices in developing countries (more people have mobile phones [than access to electricity](#) in Africa) it is becoming clear that mobile platforms will increase their market share in the future, to the point of becoming the absolute preferred method.

Taking the increasing popularity of mobile devices into account, it therefore makes sense for ODIN to focus its efforts on securing and anonymizing applications, data

and services that primarily utilize the mobile platform.

ODIN will support applications that allow everything that could be done before, but without compromising your privacy or online security. It will also facilitate businesses and social models we have yet to dream about—similar to Sir Timothy John Berners-Lee being unable to anticipate game changing services like Netflix or Uber when he first [invented the World Wide Web](#).

Our blockchain will allow for the decentralization of applications and services avoiding the pitfalls of running applications through central organizations and server farms. Instead, data will be routed through any masternodes ran by the holders of the ODIN coin.

A range of toolkits will be created to lead you through a series of steps to build, test and launch your Dapps, including but not limited to:

- Specific developer tools focusing on native languages
- UX designing and testing
- Prototyping and MVPs
- Business concept validation
- Usability testing
- Marketing and promotion
- Agile implementation strategies
- OKR frameworks for aligned growth
- Acceptance testing/coding standards/documentation standards
- Mobile applications (on- or off-chain applications)
- How to support an online community
- Local exchange trading systems
- Community coins
- Growing a healthy community

A support infrastructure including but not limited to:

- An active peer support developer community
- Financial assistance through community voted projects available through the community Vanir ([community portal](#)) supported via the OPL
- Education and partnership development

- Active links to universities and incubators
- Hosting hackathons
- Attending meetups to engage other projects and/or developers that may be interested in developing on the ODIN Blockchain

We intend to bring the possibilities of the ODIN Blockchain to a greater audience, expanding far beyond the reach of crypto insiders. We will do this through focusing on the following three key areas: *innovation*, *intuitiveness*, and *integrity*.

### 3.1 Innovation

There are new and emerging opportunities for organizations and developers in all sectors to create and deliver compelling products, projects and services for their customers using the power of disruptive innovation brought by the use of blockchain technologies and by *nurturing collaboration*.

The ODIN Alliance will advance ideas through research and peer-to-peer blockchain development with a rich and supportive range of partners, developers, business experts, and philanthropists. We aim to bridge the divide between Entrepreneurs (for profit and socially conscious) and innovative, agile, visionary developers.

We empower all contributors to collaborate with us in shaping the future of ODIN.

### 3.2 Intuitive

We understand very well the implications of using blockchain technology. As familiar as it is, it remains a new area of technology and thus people are generally reserved or even skeptical about its use case.

We intend to overturn this thinking by helping create applications that are user friendly, and that support and develop third-parties in creating out-of-the-box, ‘plug-and-play’ software.

We aim to do this with our focus on usability to *make blockchain usable*.

We will embody human-centered design across all our projects and frameworks in order to ensure intuitive ease of use and simplicity of experience. Supportive toolkits as expressed above are being built across all areas, from development through to design and community collaboration. These showcase ODIN’s capabilities and help spur the growth of ODIN DApps and a library of smart contracts.

### **3.2.1 Why is usability important?**

Usability is the measure of the quality of a user’s experience when interacting with a product or system—whether a web site, software application, mobile technology, or any user-operated device.

There are many definitions for usability, but four elements can be broadly considered and which ODIN aims to address:

- Intuitive and easy to learn
- Efficient to use
- Errors can be recovered from quickly
- Easy to remember

Whilst the end product Dapps will be out of our control, or more correctly in the control of the community, by focusing on usability we are more able to support creating projects, products and services where users will be satisfied, enjoy their interaction and achieve goals effectively and efficiently. This will lead to more confidence and trust in what we are accomplishing.

Satisfied users are loyal users and increase the likelihood of recommending your product or service to others.

### **3.2.2 The benefits of usability**

By focusing on usability, you will be benefited in many ways including:

- Reduced development time and costs
- Reduced support costs
- Reduced user errors
- Reduced training time and costs
- Return on Investment

### **3.2.3 Integrity**

Whilst we have placed our focus on privacy and anonymization, the governance structure itself will be open and transparent. We will not ask people to blindly trust us to guide them, and consequently we will be open about our own goals and manners of achieving them. We always aim to ‘do the right things.’



This includes helping establish well respected open-source repositories and shaping governance and consensus decision-making models, so that we evolve into a truly decentralized community led organization.

Amongst others, we will:

- Be transparent about funding and expenditures
- Create a community ethics board
- Welcome community suggestions
- Have the community to vote on proposals, effectively making OPL a catalyst for community initiatives and proponents to ensure all goes according to agreement, and making sure all funding is allocated to those projects the community chooses.

### 3.3 The ODIN Community

As stated in the preface, the heart of ODIN is its community. ODIN will focus on four main communities:

- The infrastructure community
- The Dapps community
- The end user community
- The entrepreneurial community

All of whom require their own information, and have different motivations and needs.

ODIN already has an active and vibrant community which we aim to extend. We have a dedicated community manager aided by a group of very committed community moderators.

We constantly strive to help facilitate a positive, friendly, non-judgmental community who is willing and eager to support each other.

Ultimately, ODIN Blockchain is directed by the community. As part of our commitment to [Integrity](#), we always want to be engaged, transparent and responsive to the needs of the community. We want you to shape our ideas and designs, and will constantly provide ways to gather feedback and to listen and understand what the ODIN Blockchain community wants.

### 3.4 ODIN Community Portal

To be a truly community led project, ODIN will provide a decentralized, recurring method to allocate funds for the development of valuable ideas and to help visualize the future direction of the ODIN ecosystem.

Community members that own the required amount of Odin for a masternode will be able to exercise their right to vote on what projects they wish to see pursued. A level of active education and engagement is required to make informed decisions for the future of the ODIN Ecosystem.

Every masternode is entitled to one vote. Therefore, if you hold two masternodes you are given two votes. This allows for all levels of investment and genuine interest in the projects success to have a bigger say, and reduces the odds of success for malicious actors to intentionally vote on terrible projects, obligating the Foundation to provide them with funds.

The funds for the pursuing of these projects will be taken out of stake rewards, and transferred to an openly visible address held by the Foundation.

Before each proposal cycle, any community member or aspiring developer may submit proposals that deliver value to the ODIN ecosystem. Listing a proposal will require submission of a 25 ODIN fee, which will be burned.

One proposal cycle will last for one month.

All these proposals will be publically viewable, and it is then left up to the community to debate and investigate these proposals for themselves. Masternode owners may then vote on these proposals.

At the end of each proposal cycle, voting is closed and the budget is finalized before being distributed. At this point the Foundation will submit a 25 ODIN fee which is burned, thus finalizing the budget for the cycle.

Masternodes automatically rank the proposals based on net yes versus no %. Only the top three projects are then funded. The projects receive funds in a proportional way from the money raised during that cycle to, at most, the total value of the particular project and the remaining funds (if any) in the community wallet are rolled over to the following month.

For example, if four projects were submitted receiving the following votes

- Project one – 50% of the vote
- Project two – 20% of the vote
- Project three – 27% of the vote
- Project four – 3% of the vote

Then the funds would be allocated as

- Project one – 51% (50% + 1% of project four)
- Project two – 21% (20% + 1% of project four)
- Project three – 28% (27% + 1% of project four)

If however any % vote caused a project to receive a larger fund than is needed, that money is rolled over to be available to the following month's allocation.

For example

- Project one is to receive 51% of the funds (which was, for example, 5000 ODIN) but that project only requested 4000 ODIN, 1000 ODIN would remain in the wallet until the following month.
- Periodically if the community wallet grows to an 'excess' size we will engage with the community as to what you would like to do with these funds (options could include, roll over, burn etc)

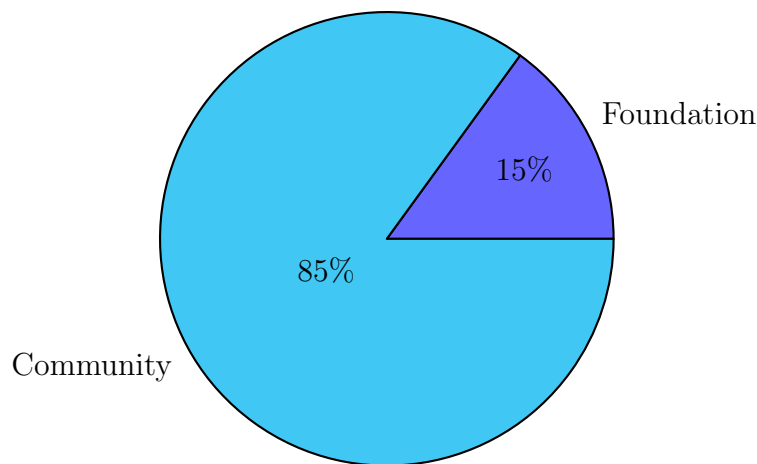
## 4 ODIN Coin Distribution

The Foundation will initially hold, and never exceed, 15% of the total supply in a “reserve wallet.” This reserve wallet will ensure active development can be guaranteed even during times of low liquidity or possible market issues that may reduce cash flow.

The amount taken out of each stake reward for the governance pool will be 20%.

- 10% of this is given directly back to the community in the form of a community treasury to support development of projects voted on by the masternode holders.
- 10% is spent through the governance treasury to support operational costs of the Foundation (these costs will be made transparent through a Governance report at the end of each financial quarter).
- The Foundation’s core reserve holdings will never exceed 15% of the total supply, and will gradually decrease over time.
- The Foundation will never stake these core reserve holdings.

All the other coins in the total supply will be held strictly by the community.



## 5 Technical Overview

### 5.1 ODIN Coin

The ODIN Coin (ODIN) is a PoS coin that uses the ODIN blockchain. ODIN is the native currency throughout the ODIN Ecosystem (OE) and is aimed, like the rest of the ecosystem, at mass adoption and real-world utilization.

This will be promoted via the broad distribution of the ODIN Messenger (its first showcase app) and through the implementation of upcoming technologies and partnerships (see Roadmap).

### 5.2 ODIN Mobile Messenger

ODIN Mobile Messenger is an example decentralized application, (DApp), to demonstrate what can be built on top of the ODIN blockchain platform. It is a secure encrypted messenger which uses decentralized nodes, (at the time of writing, a stepping stone to upcoming ODIN service nodes), and allows signed messages on the blockchain.

Once a connection is established, the system switches to peer to peer (P2P) communication between people and bots. All communications are encrypted, and users can choose to have their hash stored on the ODIN blockchain for a small fee. The ODIN Mobile Messenger will have wallets built in, which allows for the sending and receipt of ODIN via both chat and wallets.

### 5.3 ODIN PoS Framework

ODIN uses a Proof of Stake approach to secure the blockchain. This uses vastly less electricity than Proof of Work algorithms and is therefore more environmentally friendly and sustainable. It also facilitates greater decentralization since masternodes can be operated inexpensively. Transaction fees are also a fraction of bitcoin fees.

The ODIN staking approach offers diverse options ranging from simple staking to more demanding masternoding schemes. A block reward (as described in the section [ODIN Specifications](#)) will be split between masternodes and stakers where the exact ratios of the reward distribution will be adjusted over time.



## 5.4 ODIN Staking Wallets

Currently ODIN supports the ODIN-QT Windows, Linux, Mac and Android. This area is undergoing rapid development and updates are expected periodically.

Simplified staking framework is available through the wallets and it is encouraged to stake your coins both for the securing the network and to gain staking rewards.

Upcoming wallets:

- Standalone Android wallet
- Standalone iOS wallet
- Raspberry Pi wallet
- Docker Wallet
- Paper wallet
- Online web wallet
- The ODIN messenger is set to feature a mobile ODIN wallet in 2018
- Hardware wallets (related to hardware partnerships):
  - Trezor
  - Keepkey
  - Ledger Nano S.

## 5.5 ODIN Masternodes

We now have a well-calibrated masternode policy (see [ODIN Specifications](#)) which was missing pre-fork.

Our masternodes provide a decentralized network of servers separately held by individuals to provide the functional infrastructure of the ODIN blockchain. As they provide additional services and security (supporting private transactions) they receive a greater reward than normal staking. Given their large stake masternode owners have an incentive to maintain the security and integrity of the blockchain and guide its growth over time.

The more activity and resources that are required, the more fees are generated and the greater rewards are given. The algorithmic protocols balance exactly the ratio of rewards between stakers and masternodes. Using this approach a passive income stream is created.

In future releases, as we unveil additional ODIN features and products, masternodes will take on additional functional roles.

### **5.5.1 What do ODIN masternodes do?**

Genuine masternodes holders have long term interests in mind. They are invested in the tech and the ecosystem and pay less attention to short term oscillations in value. Therefore, masternodes themselves have a strong moderating effect on volatility in markets and the masternode community gradually grows into an informed and involved community.

Currently they facilitate processing of transactions, they secure the network, they assist with unique features such as SwiftX and Obfuscation and they have a stabilizing influence over the coin volatility.

Our masternodes also process zerocoin private transactions.

However, masternodes are more than just the IT infrastructure layer of an ecosystem; they provide the foundation upon which a strong and committed community can grow.

Intensive computing, storage and connectivity systems require a reliable infrastructure. Masternodes provide these resources by creating a decentralized network of “suppliers” to the environment and are therefore providing a great tool against centralization whilst providing increased utility.

Our robust masternoding policy is setup to

- Channel the ecosystem away from coin centralization
- Offer a rational price that targets upper-mid range investors
- Prevent a potential over-exploitation of the PoS features by large coin holders
- Provide functional processes and offers a path towards platform fees
- Provide additional security, reliability and performance to the blockchain
- Ensure that a balance between sufficient liquidity and functional requirements.

If a masternode owner wishes to stop operating their masternode, they can unlock their coins and terminate the function at any time.

### **5.5.2 How do you run an ODIN masternode?**

To run a masternode, one is required to lock sufficient amount of coin (25 000 ODIN per masternode) and follow the framework guidelines and operational criteria as per

the upcoming published framework.

As masternodes are required to commit significant coin and uphold a functional criteria they receive a greater reward than normal staking. This additional reward is to compensate for costs and effort.

As running masternode requires significant holdings (25 000 ODIN per masternode) it is not ‘cheap’ in terms of a monetary or a time commitment—hence there is incentive by this community to grow the impact of the project. However, due to a minimum amount of coins needed to run a masternode, it is also not feasible for large scale implementation. Therefore a large holder with hundreds of thousands or millions of coins would not be realistically able to run hundreds of servers and thereby over-ride decentralized consensus.

### **5.5.3 What is the reward for running an ODIN masternode?**

Masternodes receive block rewards as they provide functional roles on the various products that will make use of the masternode network and its offered functionalities.

At any point, masternodes will have higher ROI compared to staking. This compensates them for providing the key functional role in the ODIN infrastructure and for their added commitment to promote more decentralized infrastructure.

The more activity and resources that are required, the more fees are generated and the greater rewards are given, algorithmic protocols balance exactly the ratio of rewards between stakers and masternodes so to ensure a healthy system that can grow and shrink as need be.

At the moment of writing 116.53 ODIN is rewarded for each block which is targeted to occur every 60 seconds. The return on investment for a masternode owner in the first year will change as masternodes are added and removed.

For clarity, the P2P and zODIN Transaction fees are burned.

## **5.6 SwiftTX**

SwiftTX is a near-instantaneous and highly efficient mechanism for creating consensus and for locking-in transactions using a randomly selected masternode prior to being written into the blockchain.

This allows for great improvement in functional performance, allowing for near-real time transactions for non-critical operations (security of transaction’s validity increases after being added into a block and greatly increases after “maturing” for a

few blocks). This protocol will play an essential role in many operational elements to be developed and unveiled on the ODIN network.

After submission a subset of masternodes will validate the transaction and on reaching consensus they will lock this transaction for later addition to the blockchain. Using this consensus mechanism multiple transaction can take place before block mine with the same inputs. This approach greatly increases transaction speed compared with consensus mechanisms available in Bitcoin (for example)

## 5.7 TOR & IPV6 Masternodes

Continuing with reinstating a privacy oriented environment, both nodes and masternodes can be run on IPV6 and onion address. Building a stable and smooth TOR network will require further development and mostly sufficient adoption by TOR masternodes, following which a significant layer of privacy, anonymity and security would be added.

Severing the link between the masternode hosting network through onionization as a complete TOR network would be most important to less secure domestic networks as well as improving overall anonymity of masternodes and opening many promising directions for future development of TOR oriented features.

## 5.8 Sporks

Sporking allows the network to quickly respond to security vulnerabilities and to implement new features in a smooth and low involvement from coin holders' and users' end. Sporking is a multi-phased forking mechanism which in addition to minimising the risk of unintended network forks during rollouts, allows to respond to threats or issue patches without requiring nodes to run software updates.

Sporking is achieved by automatically changing a blockchain's behavior starting with a certain block. This specific block's number is not required to be known beforehand. Through this method, a blockchain's software can be automatically updated without any specific commands from the node operators. It is achieved merely through nodes receiving a message telling them when the software change comes into effect.

This method is extremely user friendly and goes hand in hand with our focus on [Intuitivity](#). We wish to be as user friendly as possible in each aspect on our chain, from the blockchain's core features to the applications developed to run on top of the network.

## 5.9 Zerocoin Protocol

We all need privacy in certain elements of our lives. Our belief is that this need for privacy also extends to elements of our life online. In Bitcoin transactions information about the sender and receiver is publicly broadcast including the address where the bitcoin is coming from, the address it is going to and the amount sent.

With proper scrutiny it is possible to reveal the identity of the owner over time. With cryptocurrencies that do not guarantee privacy, personal information can be analyzed, aggregated and ultimately sold without your knowledge or consent.

To guarantee privacy within transactions, ODIN uses a protocol called Zerocoin.

Zerocoin completely breaks the transaction links between coins through the use of zero knowledge proofs. Simply speaking, zero knowledge proofs allow a party to prove a secret without revealing it to the other party.

Zerocoin mint allows you to burn coins and later redeem an equivalent amount of brand new coins (Zerocoin spend). As these are brand new coins they have no prior transaction history. In ODIN, Zerocoin verifies the transaction between the sender and receiver without revealing this link via the masternode infrastructure.

Zerocoin minting is almost instantaneous and spending is a matter of seconds. We have implanted a scaled level of security so the degrees to which you wish the coins to be mixed can be from five blocks before yours, to every coin in existence. For a small transaction ODIN can be minted in Zerocoin ODIN in a variety of standardized denominations.

Because of its additional computational energy required Minting Zerocoin ODIN (zODIN) is more expensive than a normal transaction.

Like other transaction fees, the zODIN fees are burned, reducing the total supply of ODIN. zODIN can be converted back later to ODIN, by sending them to their own wallet addresses, or to spend them at any other ODIN address, and spending zODIN has no transaction fee. Whilst they are held, zODIN are stored in the user's wallet like secure vouchers for ODIN that can be redeemed anonymously. If someone was concerned about being targeted by hackers, because they have a high balance in their account, using zODIN will mask their true balance, creating the ability to hold "stealth" value that cannot easily be traced back to the user's wallet.)



## 6 ODIN Specifications

Item	Value
Trading Symbol	ODIN
Block Time	60 Seconds
Block Maturity	50 confirmations
Confirmation Time	6 Blocks ( $\sim 6$ Minutes) for P2P TXs, 51 Blocks ( $\sim 51$ Minutes) for Staking/Masternode Rewards
Block Size	Maximum 2 MB
Premine Supply*	250 000 000 (estimated depending on total claim by the community)
Current Supply**	250 500 000
Block Reward	116 (decreases over time)
Masternode Reward Ratio	48% – $xx$ ODIN <sup>†</sup>
Staking Reward Ratio	32% – $xx$ ODIN <sup>†</sup>
Community Developer Fund Ratio	10% – $xx$ ODIN <sup>†</sup>
Foundation Operating Costs	10% – $xx$ ODIN <sup>†</sup>
Transaction Fee	$< 0.001^{\dagger\dagger}$
Zerocoin Transaction fee	0.01 zODIN <sup>††</sup>
Masternode Requirement	25 000 ODIN
PoW	Up to block 1500
RPC Port	33221
P2P Port	33222
PoS Implementations	Blackcoin v3.0 PoS
Supported Protocols	IPV4, IPV6, TOR

\* Any unclaimed coins will be burned.

\*\* This will be reduced by a significant amount through a coin burn. This amount will be determined once we have a figure for the total ODIN that is being claimed by the community.

<sup>†</sup> Amount will decrease overtime as Reward decreases, amount shown is current for current time of writing.

<sup>††</sup> P2P and zODIN transaction fees are burned

## 6.1 ODIN Block generation/reward scheme

Term	Reward	Block Reward	Estimated ROI <sup>†</sup>	From Block	To Block	Ending Supply <sup>††</sup>
Y1 Q1	15312500	116.53	70%	10000	141400	102812500
Y1 Q2	15293359	116.39	60%	141401	272801	118105859
Y1 Q3	14933010	113.65	51%	272802	404202	133038869
Y1 Q4	14297937	108.81	43%	404203	535603	147336806
Y2 Q1	13459378	102.43	37%	535604	667004	160796184
Y2 Q2	12485571	95.02	31%	667005	798405	173281755
Y2 Q3	11436798	87.04	26%	798406	929806	184718553
Y2 Q4	10362894	78.87	22%	929807	1061207	195081447
Y3 Q1	9302623	70.8	19%	1061208	1192608	204384070
Y3 Q2	8284292	63.05	16%	1192609	1324009	212668362
Y3 Q3	7327067	55.76	14%	1324010	1455410	219995430
Y3 Q4	6442581	49.03	12%	1455411	1586811	226438011
Y4 Q1	5660950	43.08	10%	1586812	1718212	232098961
Y4 Q2	5802474	44.16	10%	1718213	1849613	237901435
Y4 Q3	5947536	45.26	10%	1849614	1981014	243848971
Y4 Q4	6096224	46.39	10%	1981015	2112415	249945195
Y5 Q1	6248630	47.55	10%	2112416	2243816	256193825
Y5 Q2	6404846	48.74	10%	2243817	2375217	262598671
Y5 Q3	6564967	49.96	10%	2375218	2506618	269163637
Y5 Q4	6729091	51.21	10%	2506619	2638019	275892728
Y6 Q1	6897318	52.49	10%	2638020	2769420	282790047
Y6 Q2	7069751	53.8	10%	2769421	2900821	289859798
Y6 Q3	7246495	55.15	10%	2900822	3032222	297106293
Y6 Q4	7427657	56.53	10%	3032223	3163623	304533950
Y7 Q1	7613349	57.94	10%	3163624	3295024	312147299
Y7 Q2	7803682	59.39	10%	3295025	3426425	319950981
Y7 Q3	7998775	60.87	10%	3426426	3557826	327949756
Y7 Q4	8198744	62.4	10%	3557827	3689227	336148500
Y8 Q1	8403712	63.96	10%	3689228	3820628	344552212
Y8 Q2	8613805	65.55	10%	3820629	3952029	353166018
Y8 Q3	8829150	67.19	10%	3952030	4083430	361995168
Y8 Q4	9049879	68.87	10%	4083431	4214831	371045047

<sup>†</sup> Estimated ROI percentage is based on an estimation of number of masternodes running.

<sup>††</sup> Ending supply numbers are dependent on the amount of total ODIN claimed.

If, for instance, we take the amount held by the community as approximately 50M ODN, and 100% of this is claimed, the community will receive a total of 125M ODIN. Making the initial total supply, in this instance 147M.

