

Ozone

A Browser Based Blockchain Built To Enable Cryptocurrency Adoption

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Introduction

Every second Venmo processes 58 transactions and Bitcoin processes two^[a]. Cryptocurrencies seem perpetually on the brink of revolutionizing a myriad of industries by ensuring lower operating costs, guaranteeing security, and providing higher levels of speed. So why is the adoption rate of crypto incredibly low for the average consumer? The reason is that the technological strengths of cryptocurrency do not easily translate into a perceivable benefit for the end-user.

In this paper we will introduce Ozone, a cryptocurrency that is built to provide substantial value to end-users by utilizing both a browser based blockchain and a person-to-person payment platform to remove barriers to entry. The goal of Ozone is to achieve high levels of real word transactions by focusing on person-to-person payments.

Current barriers to cryptocurrency adoption

The difficulty of initially acquiring cryptocurrency poses the greatest barrier to mass adoption. Most people acquire their first coins via purchase, a process that is difficult and complex. All purchases are subject to unpredictable government regulation (KYC, passport verification, banking laws). Additionally low levels of understanding and trust inhibit cryptocurrency purchasing momentum.

Age and location restrictions combined bar almost 30% of the world's population from purchasing cryptocurrency^[b]. Those barred by age, Generation Z, are often neglected by crypto-oriented products due to the bulk of purchasing sites requiring a minimum purchasing age of 18. This influential segment of the population currently has no direct route to acquisition. Moreover, analysts predict that through blockchain adoption "Generation Z is expected to transform the payment space as they enter financial independence"^[c]. Ozone seeks to provide a way for this segment to readily obtain cryptocurrency, becoming the de facto choice for Generation Z.

So why is the alternative mode of initial acquisition, mining, not popular? Mining is a complicated exercise, requiring downloads and high technical literacy. Additionally large hardware investments are required to produce tangible results. These two factors make mining a nonstarter.

In addition to initial acquisition there are general usage barriers. Sending transactions, proper security, and wallet creation are all complex tasks. In the next section we will go over how we worked to remove the many barriers that prohibit the widespread adoption of cryptocurrency.

Removing Usage Barriers

Our core strategy with Ozone was to remove as many barriers to cryptocurrency adoption as possible. We accomplished this in two main parts, firstly by creating a new coin utilizing a new browser based blockchain: Ozone; secondly through sendozone.com, a platform that facilitates person to person transactions and allows users to easily and directly earn cryptocurrency.

Ozone Blockchain Architecture

A more in-depth technical analysis of the blockchain can be found in the Nimiq resources at the end of this paper

Ozone is a fork of the Nimiq blockchain. The key component of this blockchain is that its browser based, allowing for the creation of products with greater simplicity and usability. Three client types are available, full, light, and nano. Full nodes act in a normal way, requiring a complete download of the blockchain. Light clients only need to download a small part of the blockchain and are most useful for payment services. Nano clients require users to only download a megabyte of data, allowing users to rapidly verify balance and transaction amounts.

Nano clients allow for a user to establish consensus in the browser, use online wallets, and instantly be a real participant in the Ozone blockchain. These clients allow for a user to begin mining in their browser without any delays and without a third party. The browser based blockchain Ozone runs on sets the stage to let us build trusted and fast applications.

SendOzone.com

A Blockchain by itself does not provide increased usability or simplicity. To complement Ozone we created a platform called sendozone.com, a comprehensive entry point allowing anyone to get started with cryptocurrency. The site is live and can be found at sendozone.com. Key functionality includes one click mining, tools to manage mining devices, person to person transactions (both on and off chain), social payments, and easy to read analytics. Each feature is designed to be as simple as possible while still allowing users to fully utilize Ozone's blockchain.

Before outlining what features to build we determined our strategic segmentation for sendozone.com. By tailoring our product to a specific segment we are able to more rapidly obtain the network effects critical for a person-to-person platform. We are initially targeting individuals 15-24 that are technologically proficient and own either a smartphone or computer. Sendozone.com is able to provide the greatest value to this segment as they are unable to acquire cryptocurrency due

age restrictions or a lack of resources. Each feature of sendozone.com is designed to best suit our target market.

With sendozone.com we solved the problem of initial acquisition by utilizing a simple and efficient browser miner. With nano clients users are able to begin mining with no downloads, and are able to produce tangible results. Users can also easily manage, add, and remove mining devices. Through mining we remove all barriers that would come with purchasing. Avoiding identity verification, government regulation, minimum age laws, and the risks associated with purchases. Simplified mining is the key to mass adoption.

Users will be able to transact their Ozone with anyone both on and off the blockchain. Each user account has both a username and an Ozone address giving them full control of their funds. Usernames remove the complexities of addresses and allow for easy fee-less transactions. Taking into account the needs our target market we built social components into the platform. Users can add friends, view someone elses friends, and view other user's transactions that are set to public. These features allow for greater confidence when transacting, as you can verify legitimacy of an account through social signals. Social payments are also a large draw as they are not available for those who are underage. Sites like Venmo, Paypal, Coinbase, BitPay, and Zelle all mandate that their users be above the age of 18^[d].

We are in the process of adding gamification aspects to sendozone.com, namely achievements and a leaderboard. The purpose is to make users feel more confident with cryptocurrency and the sendozone.com platform. Achievements provide guidance and an anchoring of performance. Leaderboards have been shown to be "successful in motivating participants to performance levels similar to that of difficult and impossible goal-setting"^[e]. These features help users obtain maximum value from sendozone.com.

Combined, the radically simplified mining system and the easy person-to-person payments allow users to derive real value from the platform. Our efforts in Q2 will concentrate on growing sendozone.com. Ultimately we want sendozone to become the go-to site for anyone interested in cryptocurrency. Sendozone generates revenue through a 1.5% pool mining fee. This revenue method makes sure our goals are aligned with those of our users.

Growth Strategy

The key performance indicators that guide our growth strategy are the number of active miners and the number of transactions per day. In combination these KPIs help us effectively measure both the health of Ozone as a coin and the growth of sendozone.com as a platform. Below is a general outline of a few of our marketing plans. For sendozone.com the optimal marketing strategy may

change at any time due to certain events (school seasonality, banning of crypto ads, etc.).

On Platform (sendozone.com)

Once a user creates an account we want to enable and incentivize them to bring their social circle with them. Having a user's friends on the platform is good for users and for the network as a whole. We plan to allow users to easily invite their friends through email, social media, or SMS. To further incentivize user invitations we are considering a referral program. Users would invite their friends with a special link which would pay out a percentage of our 1.5% mining pool fee earned by users that joined through the link.

To increase user retention we want to do everything possible to make sure users understand the product. Cryptocurrency is complex and we want to stop users from being overwhelmed. To this end we have a comprehensive support database planned to address common questions. We also offer live chat support on sendozone.com. These features will complement each other and allow for a deeper understanding of the value provided by the site.

Off Platform (Digital Marketing/Partner Outreach)

This section has been omitted, we plan to update it ex post.

Ozone as a cryptocurrency

Our first goal with Ozone is to get it on an exchange. Exchanges provide liquidity and a way for users to easily understand the rewards of their mining. An exchange pairing will also serve as a guide for transactions between users. Once listed we will change elements of the site to incorporate the market price of Ozone.

Beyond getting listed, maintaining the code behind Ozone is critical for its health and growth. The Nimiq team did a great job with blockchain infrastructure. So to start we will mirror Nimiq's updates. We realize dependence on a third party is not ideal. This is why we plan to bring on more developers to remove this dependence as outlined in the roadmap.

Ozone supply and distributional

Ozone will have no ICO and no premine, 100% of all coins will be mineable from day 1. We believe coin distribution both initial and sustained is equally as

important as the technology. The adoption and success of a currency relies on a healthy mining economy. ICOs and premines lead to a centralization of coins and invite government regulation. Below are the relevant details concerning supply.

Coin name: Ozone

Ticker symbol: OZN

Total supply: 21 Billion OZN

Block Time: 1 Minute

Block Reward: 4,965 OZN (decreasing over time, eventually becoming constant at 4000)

Algorithm: Argon2d

Why Fork Nimiq

Ozone is a fork of the Nimiq blockchain, it is the same except for the coin supply. With Ozone, 100% of coins are mineable from day 1, there is no ICO and no pre-mine. With Nimiq, 12% of coins are set aside and are not mineable^[f]. We plan to mirror nimiq updates while we focus resources on market growth. As our resources grow we will move to remove any dependence on Nimiq by hiring additional developers.

Since our team is not conducting an ICO or taking a pre-mine, why did we not create a site centered around Nimiq? The pay-out for our mining pool would contain much less risk. The reason is that while the infrastructure powering Nimiq is revolutionary, we believe the following aspects make its long term success unlikely.

1. Centralization

Up until Nimiq's release, the Nimiq team made repeated promises of releasing a mining pool before launch. This reduced the creation of alternative mining pools by developers. In the end Nimiq failed to launch with a mining pool, causing unreasonable levels of centralization. One mining pool controlled 98% of the hashrate^[g]. At the end of the day this is an unacceptable release for a coin. Misleading users and allowing for an incredibly centralized launch goes against the principles of cryptocurrency. This quote by the founder of Litecoin highlights the issue with Nimiq.

"We believe a coin needs to be released in a fair manner. Having one person (or a group) control a large amount of coins that can be used as they see fit is against the decentralized vision of Bitcoin." - Charlie Lee October 2011^[h]

Furthermore Nimiq is highly centralized due to the coin supply. Of the 21 billion total coins the Nimiq team is in control of 1.47 billion^[i]. In the competitive cryptocurrency landscape this large amount of Nimiq owned coins drastically reduce the likelihood that the coin will see any real world usage.

2. Failure to meet or communicate deadlines

Nimiq initially announced a mainnet launch by end of year 2017^[j]. This date came and went without an update from the team. Eventually they announced a mainnet launch for Q1 2018, which also came and went. The failure to meet or properly communicate these deadlines indicate the team does not hold themselves accountable to stakeholders.

3. Improper collection of personal data (KYC process)

Nimiq revealed a required KYC process to ICO participants months after the sale on January 31st, 2018^[k]. Additionally they state in their agreement that "The Personal Information and Verification Information will be encrypted by Nimiq and stored with ISO 27001 certified hosts in Germany or Switzerland for a period of up to 10 years".^[l] Their reasoning is that they "need consistent prove of the safe origin of funds in Nimiq Blockchain"^[m]. The KYC process is not easy and requires webcam and passport verification^[n]. We believe the over-collection and storage of user data goes against the values associated with cryptocurrency. We agree with the Ethereum Classic decentralization manifesto that Nimiq has decided to "limit participation (such as by enforcing AML/KYC rules), thus violating openness"^[o].

4. Invalidation of US ICO purchases

After allowing US citizens to participate in the ICO back in July 2017, Nimiq stated that "No there is most definitely no way for US citizens to use our activation tool"^[p]. This announcement came in Q1 2018 and meant that US purchasers would have to circumvent Nimiq's TOS to obtain their purchase. These actions indicate a lack of due diligence and accountability.

5. Lack of marketing and vision

Nimiq has stated in the past that they "are an infrastructure startup"^[q]. While their focus on infrastructure is important they have completely ignored elements that are critical to success. Stating that they will "focus on a business plan and marketing after Mainnet Launch"^[r]. Another comment further clarifies that in terms of marketing "Nothing is planned at the moment. We will start planning after mainnet launch"^[s]. These comments show how elements critical to success have been overwhelmingly ignored. The engineers leading Nimiq fail to see beyond the product.

We realize problems are inevitable when building a product, and we thank Nimiq for the infrastructure. Ozone is only made possible because of Nimiq's previous work.

General Roadmap

Subject to change, dates are only an estimate.

- April 2018
 - Ozone mainnet launch
 - SendOzone.com launch
- Q2 2018
 - Optimize SendOzone.com Platform
 - Focus on security and stability
 - Get Ozone onto an exchange
 - Begin marketing efforts
- Q3 2018
 - Add impactful features to SendOzone.com
 - * Support center
 - * Achievements
 - * Leaderboard
 - * Allow for users to invite contacts and facebook friends
 - Expand marketing efforts
 - Improve user onboarding
- Q4 2018
 - Bring on additional developers to remove dependence on NimiQ
 - Depending on the situation we may begin this earlier
 - Grow SendOzone.com
 - Finalize the core product
 - Increase user base and retention
- Q1 2019 and long term goals
 - Implement atomic swap
 - Focus on growing the number of active miners
 - Focus on growing the number of transactions per day

Conclusion

Ozone seeks to provide value to a neglected market. By carefully tailoring and creating a product to serve the needs of a specific segment we aim for rapid growth. Like many people we believe that mass cryptocurrency adoption is inevitable, Ozone seeks to make it today's reality.

We highly encourage you to visit sendozone.com and see how easy Ozone makes it for anyone to own cryptocurrency.

Additional Resources

- [Sendozone.com](https://sendozone.com)
- [Github](https://github.com)
- [Block Explorer](https://blockexplorer.com)
- [Nimiq](https://nimiq.com)
 - [Whitepaper](#)
 - [Developer Reference](#)
- Contact us: contact@sendozone.com

Appendix

[a]<https://blockchain.info/charts/transactions-per-second>

[b]https://www.indexmundi.com/world/demographics__profile.html

[c]<https://www.nasdaq.com/press-release/how-generation-z-is-using-blockchain-to-redefine-cash-20180315-00628>

[d]<https://venmo.com/legal/us-user-agreement/>

[e]https://www.researchgate.net/publication/281325758_Gamification_of_task_performance_with_leaderboard

[f]<https://medium.com/nimiq-network/nimiq-network-token-sale-terms-9af2e7fd6228>

[g]nimiq.skypool.org

[h]<https://bitcointalk.org/index.php?topic=47417.0>

[i]<https://medium.com/nimiq-network/nimiq-network-token-sale-terms-9af2e7fd6228>

[j]https://www.reddit.com/r/Nimiq/comments/7ew0ie/changed_mainnet_launch_was_december_2017_right/

[k]<https://medium.com/nimiq-network/roadmap-to-mainnet-ee557efd74d4>

[l]<https://nimiq.com/activation/privacy/>

[m]<https://i.imgur.com/GVSUWQl.png>

[n]https://www.reddit.com/r/Nimiq/comments/83pecn/kyc_procedure/

[o]<https://ethereumclassic.github.io/blog/2016-07-11-manifesto/>

[p]<https://i.imgur.com/AdwMe7X.png>

[q]<https://i.imgur.com/i45ODbE.png>

[r]<https://i.imgur.com/vl9yGIm.png>

[s]<https://i.gyazo.com/716a9a52fdb920eae223cc2094fb69.png>