



**The Polar: The Future of  
Digital Currencies**

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**White paper**

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## **Abstract**

Blockchain and cryptocurrencies have been described by many as the future financial systems. While this is true, the current cryptographic platforms must address challenges related to security, liquidity, high transaction costs, transaction delays, and expand into social spaces like gaming to be widely accepted. This document discusses these challenges, offers practical solutions, and describes how Polar incorporates these solutions.

**Contents**

- Introduction ..... 4
- Challenges facing cryptocurrencies ..... 6
  - Security ..... 6
  - Liquidity..... 7
  - Transaction delays ..... 7
  - High trading fee..... 8
  - Lack of social features ..... 9
- Solution to cryptocurrency challenges ..... 10
  - Security solutions..... 10
  - Liquidity..... 11
  - Transaction delays ..... 11
  - High trading fee..... 12
  - Lack of social features..... 12
- Why the Polar Platform ..... 13
  - Masternode and DAO ..... 13
  - Staking..... 13
  - Multiple exchanges ..... 14
  - Instant transactions ..... 14
  - Low trading fee and inflation rate ..... 14
  - Social touch..... 14
- Conclusion..... 16

## Introduction

Over the past few decades, the world has been witnessing accelerated growth in technology. In the past 50 years alone, the world has witnessed popularisation of cabled coloured television, proliferation of the internet, and the infiltration of personal computers and mobile phones in communities across the globe. Technology has also penetrated the healthcare industry and manufacturing sectors, transforming how healthcare professionals approach research, store patient records, deliver therapies, and interact with patients. In the manufacturing sector, technology advancement has distorted how companies conduct marketing initiatives, upgrade their products and services, and maintain their competitive edge. The finance industry is one of the areas that have recorded unparalleled technological disruption. Technology evolution in the sector has inspired modern banking technologies such as automatic teller machines and online banking. Besides, the finance industry has witnessed the emergence of an entirely new sub-field built on blockchain technology.

Blockchain technology facilitates the use of cryptographic currencies, also known as cryptocurrencies. These digital currencies have various benefits over fiat currencies. According to a report published by Finjan, a Cybersecurity company, cryptocurrencies hold several benefits compared to conventional currencies. The firm writes that traditional financial institutions charge exorbitant transactional fees, which can take up a significant share of assets, especially when users perform many transactions frequently. Comparatively, in cryptographic currencies, miners who process the transactions are paid from the network hence reducing the transactional costs. These currencies are also widely accessible via the internet; this implies that anyone with an internet connection can easily access financial services at the comfort of their homes. Another key quality of cryptocurrencies is the sole ownership of wallets; owners have full control of their

wallets, and there are no instances of third parties managing user accounts as it is done in traditional financial institutions. Cryptocurrencies have better adaptability to various functions; they can be used in supply chains, or masking identifies (privacy coins). A similar report by Investopedia propounds that cryptocurrencies give users more autonomy over their money by eliminating intermediary authority. The report further asserts that cryptographic currencies provide discretion that makes it challenging to readily trace the identity of people making transactions.

Generally, cryptocurrencies are challengers of the traditional financial system. They promise to fight the financial regulation synonymous with the current financial system, increase financial inclusion, and create a more just and transparent economy. While this is true, various studies indicate that most cryptocurrency platforms face serious challenges that limit their offerings. This document highlights some of the pertinent problems facing cryptocurrencies, how these problems can be addressed, and how Polar integrates these solutions into its platform.

## Challenges facing cryptocurrencies

Cryptocurrencies have come a long way for the past ten or so years they have been in existence. Over the period, they have experienced sharp rises and endured fever pitch doldrums, proving how resilient they are. Even though most of these currencies have achieved significant milestones over time, Matthew Frankel, a certified financial planner based in South Carolina, writes on The Motley Fool that they have a long way to go before they become widely accepted as a medium of payment. For cryptocurrencies to be extensively assimilated, they must first overcome several challenges impeding their growth. Here are some of the major challenges facing digital currencies.

### Security

Criminals are always early adopters of new technologies. They use technology to create new avenues of illegally accessing people's wealth. In most cases, laws and law enforcement agencies are always playing catch-up. This is particularly true for cryptocurrencies. CNBC reports that in 2018, cryptocurrency platforms lost about \$1.1 billion to criminal activities. A similar report by the Global Security Exchange Plus asserts that Coincheck lost \$530 million to fraudsters in the same year. Reuters reported that in 2019, losses due to security issues surged to \$4.52 billion, representing over a 160 percent increase from the previous year. Though the 2020 reports are not yet public, it is projected the figure has risen with a significant margin.

Besides the theft of cryptocurrencies, user data is another critical asset targeted by criminals. According to a new article published on Business Standard, hackers actively target user data on cryptocurrency wallets and sell it to other parties. For example, the article reports that the hacker responsible for attacking Ethereum.org is now selling data attached to key cryptocurrency wallets like Keepkey, Trezor, Ledger, and online investment platform Bnktothefuture. It is said

the hacker has three large databases with data pertaining to at least 80,000 customers. Most of these data comprise sensitive information like customer names, email addresses, phone numbers, and residential addresses. Generally, security is a major concern for cryptocurrency platforms. While some platforms have managed to break through into the market, their security systems are too weak to withstand attacks from unscrupulous cybercriminals.

### **Liquidity**

Liquidity is a vital element of any market. Lack of liquidity in the market creates an imbalanced environment hence creating a risk of things running out of control. Decreased liquidity can cause delays in placing orders, executing transactions in time and creates a loophole for the big boys to manipulate prices. Besides, lack of liquidity creates a market where volatility and price slippage are rampant. Another secondary issue with reduced liquidity is that it concentrates the power into the hands of cryptocurrency exchanges with large liquidity. Because of this, some major exchanges nowadays charge up to \$1 million to get tokens listed – essentially selling liquidity to the token projects.

Since the inception of cryptocurrencies, the problem of liquidity has been carried on, with bouts of new users magnifying the problem. As cryptocurrencies' popularity continues to rise, and more people increase digital assets investments, the liquidity challenges will become more pronounced. Though nearly all platforms offering digital currencies acknowledge the need to enhance their platforms' liquidity, most of them, including leading cryptocurrency platforms, are not taking the necessary measures to enhance liquidity.

### **Transaction delays**

In a bid to contain the challenge of insecurity, some cryptocurrency platforms have adopted various measures to verify and approve transactions before they are completed. These new

measures have resulted in every step of the transaction being met with delays, starting from the opening of trading account, verifying identity to deposits and withdrawals. The increase in the number of users and cryptocurrencies leveraging blockchain technology has caused an uptick in delays as more transactions are held in queues awaiting approval. One of the primary reasons cryptographic currencies were launched was to reduce the time needed to complete payments. However, going with recent developments, the opposite is true. With the increasing frequency of inordinate delays, digital currencies will indubitably lose their reputation as the fastest form of payment.

### **High trading fee**

One of the motivating factors that lured early adopters of digital currencies was low trading fees. In the early 2010s, most cryptocurrency platforms were charging trading fees of less than one dollar. However, over time the trading fee has kept increasing. Today, according to BitInfoCharts, people pay an average of \$28 to make transactions. CNBC has even reported instances where users of cryptocurrencies have been forced to pay as much as \$16 to complete transactions of less than \$25. While high trading costs are likely to be beneficial to miners, they hurt the regular users. Besides, high trading fees negate the initial benefit of low transaction costs. The key reason leading cryptocurrency platforms are characterised by ridiculous transaction costs is the splitting of fees into maker and taker fee. The taker fee is the value charged to the recipient of the transaction, Whereas the maker fee is the amount charged on the person transferring value to another account. The 'maker' adds liquidity to the platform. Hence they are rewarded with a lower fee while the 'taker ' reduces liquidity; hence they are 'punished'.



### **Lack of social features**

Human is a social animal, and virtually everything people engage in has a social touching. For example, fiat currencies provide mechanisms gaming enthusiast can pay for advanced features and various capabilities. These currencies have APIs that allow people to pay for social engagements on platforms. In contrast, many digital currencies do not provide avenues for users to pay for fun activities on other platforms. Most universal cryptocurrencies allow people to buy services and goods but not social services. Though some cryptocurrencies for gamers have emerged, most of them cannot be used outside the gaming world.

These are some of the key problems facing modern cryptocurrencies. While some of these challenges may seem obvious or far-fetched, various industry experts have suggested that they are the key reasons why digital currencies' adoption rate is still low. The next section highlights some witty solutions to the problems, as suggested by the Polar team.

## **Solution to cryptocurrency challenges**

Blockchain and the emergence of cryptocurrencies are some of the biggest technological developments of the 21st century. As aforementioned in the previous sections, this technology has the potential of transforming how future global economies interact. Besides, the technology has been tipped with the potential of revolutionising how people sell and buy products and interact within their social spheres. However, for this to happen, blockchain technology should address some of the pertinent issues that are ailing it. This section proposes some of the best solutions to challenges facing cryptocurrencies. These solutions have been tested and peer-reviewed by experts from Polar and other professionals in the crypto community.

### **Security solutions**

The security threat can be addressed through conventional security controls and controls unique to the blockchain. Conventional security controls comprise standard security measures used in typical IT systems. They include practices such as the use of corporate security standards and systems to ensure secure software development lifecycle, application scanning, and appropriate security policies. Also, it entails identity and access management capabilities for user onboarding, multi-factor authentication, strong cryptographic key/certificate management, security incident and event management, hardware security, application security, infrastructure security, and full-scope penetration testing and vulnerability assessment.

Controls unique to blockchain technologies involve strategies such as using platforms with robust security features such as fully edited smart contracts, using error-free token standards such as ERC -777, identity and access controls to access the blockchain solution and data, employing the hardware security module (HSM), using privileged access management (PAM) solution for escalated actions, applying API security best practices to safeguard API-based transactions,

leveraging secrets-store for both application and privileged access, adopting data classification approach to safeguard data/information, employing privacy-preserving technologies for sensitive information, and securing communications both internally and externally.

While these controls may seem too many to implement, it is noble for cryptocurrency platforms to employ all of them. Ignoring any of them leaves room for attackers to explore and access the platform.

### **Liquidity**

Many online trading platforms have implemented various solutions to liquidity challenges. While some of these platforms have managed to register recognisable results, a majority have failed to record any improvements. According to experience, one of the best approaches to addressing liquidity is reducing the cost of users switching from one exchange to another. This can be well implemented by working with various wallets and allowing users to log into their wallets, execute token conversions without ever leaving their wallets. This approach is not the only one suitable for addressing liquidity challenge, but the idea is that trading platforms should remove barriers to switching exchanges. Other factors, such as low inflation rate, should also be considered when addressing liquidity.

### **Transaction delays**

The Island Now asserts that dawdling transactions often happens to people who are not willing to pay transaction fees. If users are not ready to pay the transaction costs, the system puts them through the time-consuming process of confirming and verifying their transactions. The miners are tasked with the process of solving the transactions as they produce more coins. One of the key reasons cryptocurrency users opt to avoid transaction fees for miners-based alternatives is high transaction fees. This implies that the right solution to inordinate transactional delays is

lowering the transactional fee. Cryptocurrency platforms that charge low transactional costs do not have challenges of delayed transactions.

### **High trading fee**

High trading fee is more of a strategic problem than a technical challenge. When cryptocurrency platforms decide to split charges into various categories, it is these categories that accumulate to ridiculous amounts. It is advisable blockchain platforms come up with one trading fee. It is also noble for the platforms to adopt a reasonable flat rate that applies to all accounts. Reasonable rates usually range between 0.2 percent and 0.01 percent.

### **Lack of social features**

It is unfortunate that despite participants in the cryptocurrency field recognising blockchain's potential to revolutionise how people socialise through platforms such as games and social media, most leading platforms have not bothered to provide features that support this potential. Besides, several expert articles, such as the one published in Hackernoon, indicate that social avenues, such as the gaming industry and social media, hold the key to popularising digital currencies. Nevertheless, none of the leading cryptocurrencies is putting up measures to leverage these social spaces. The solution to this challenge is a call up to blockchain platforms to embrace social elements.

## **Why the Polar Platform**

Polar is a modern cryptocurrency platform tailored to the needs of modern cryptocurrency enthusiasts and specifically designed to address the challenges facing conventional cryptographic currencies. Unlike other ordinary digital currencies, Polar incorporates novel features that make it suitable for standard exchange trading as well as modern exchanges in the field of gaming. Polar is a unique coin because it features all the necessary blockchain technology standards and provides various ways for its holders to earn while engaging in fun activities like playing Minecraft. By doing this, it acts as a bridge between the gaming world and reality. Here are some of the key features that make Polar a ultramodern platform.

## **Masternode and DAO**

Polar Masternodes provide additional nodes to validate blocks and transactions, adding to the distributed security of the network, providing a 2nd layer of security to the network. Masternode owners are rewarded for their service to the network, with a portion of the block reward being sent to a masternode in a round robin fashion on the creation of each block, and are also given voting rights to participate in governance decisions. Without established decision making protocols, progress, development, and growth can grind to a halt, therefore, Polar utilizes its 2nd layer of masternodes as a blockchain based voting system to ensure decisions get made and allocations are dispersed from the budget.

## **Staking**

Besides providing solutions to historical challenges ailing digital currencies, Polar offers an avenue for users to generate wealth. Holders of Polar can stake their shares and earn a fixed return on investment. The minimum time required for staking is two hours with no upper limit.

### **Multiple exchanges**

Polar addresses the liquidity challenge by offering coin holders various trading options. Holders of the PA coins can trade them against popular currencies such as BTC, LTC and DOGE. The PA coins are also tradable on the AUTRADEX exchange, where members can trade the PA against other coins or fiat currencies. Besides, holders of the PA coin can use it to purchase skins, maps, and mods outside the gaming environment. This implies that Polar is highly liquid – holders have multiple ways of spending it.

### **Instant transactions**

As discussed in the previous sections, one of the main reasons why businesses are declining crypto payments is slow transactions. The average transaction speed for some leading coins is around 43 minutes. The Polar platform conglomerates several methods that reduce the average transaction speed to less than 5 minutes. Quick transactions imply that the currency has the potential to be used in the goods and services market.

### **Low trading fee and inflation rate**

The Polar ecosystem has a tail emission. This means the coin inflation rate will change – this contributes to better liquidity. Also, 1 billion coins were minted in advance with an allowance for others to be mined in the future. This number provides an adequate supply for the coins hence keeping transaction fee low. Most coins with a limited supply have a higher unit value but suffer inflated transactional fees.

### **Social touch**

One of the key objectives of Polar is to connect the gaming world and reality. The platform aims to create a community of Minecraft players who can convert virtual wealth on Minecraft to real wealth. Polar allows players to convert PAs in the game to PA coins outside the game; 5 PA coins in the game can be converted to 2 PA in the real world. In this paradigm, playing Minecraft

acts as proof of work (PoW). The platform allows players to earn as they play. The PA coins outside the game can be traded with other digital currencies and can also be used to buy skins, maps, and mods outside the game, as aforementioned.

## Conclusion

Digital currencies have a great potential to revolutionise how global economic blocks do business and how people interact. While the current cryptocurrency platforms have made important strides towards achieving this dream, there is still more to be done to reach the desired outcome. Polar has joined the digital currencies space to inspire blockchain growth from a different perspective. Through integrating gaming and the real-world, Polar sees the potential of increasing the popularity of cryptocurrencies.

Cryptocurrency platform development is not a walk in the park. For the past few years, teams at Polar have concentrated their energies on building a secure platform that borrows best practices from other crypto platforms while improving their weaknesses. Though this platform is subject to evolution and future enhancements, we at Polar believe this is the best cryptocurrency platform in the modern market. We hope this platform fills the existing gaps in the digital currencies space and be of greater value not just to its users but the wider blockchain community.



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