



LARGO COIN

White Paper

BY LARGO FOUNDATION

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1 Introduction

The purpose of this whitepaper is to describe the proposed solutions to the problems of insecure deals and uninsured transactions in trust-dependent markets, means to mitigate centralization of financial power, lack of individuals' financial sovereignty and independence by means of blockchain technology.

The proposed is Largo platform and Largo Coin - a symbiotic off- an on-chain-operating ecosystem. Largo platform is a digital framework that utilizes Largo coin to solve the problems described above. Largo coin is a decentralized financial instrument that allows anyone to transact freely without any limitations, with low or zero fees and almost zero delay.

1.1 Emergence of Decentralized Payment Systems - Causes and Trends

Today's global financial system has allowed individuals and companies with resources, exclusive information and connections to the financial centers around the globe. But that also led to reckless financial decisions by large corporations which in turn led to a huge financial crisis of 2008-09. It affected both individuals and companies all over the world, banks and corporations started falling like dominos. It made governments of both developed and developing countries spend enormous sums of money to save the largest of banks from complete bankruptcy. But it also allowed a lot of people to see another perspective and to start thinking about the alternatives to the current global financial systems. While the banks that held strong for many years were thought to be "too big to fail" it became obvious that overconfidence of their centralized and greedy management made the financial situation in the whole world unstable and problematic. Thus, the precondition for the emergence of decentralized finance. Another prerequisite for the emergence of such systems is the technological advancements that we all enjoy today in our everyday lives. It's curious to see how these technologies were not enough to allow for a true revolution in sovereign finance but their combined power was the deciding factor in what the world will look like in the next 10-20 years.

The technologies that made it possible for such systems to appear are:

- Internet (Early 1990s) – What started as a research project (ARPANET) initiated in 1969 is today a necessity for most of the people in countries all over the world. People of today literally can't imagine their life without the Internet. The World Wide Web today provides democratized access to information at your fingertips. It is estimated that almost 4 billion people (or about 51%) of the world population is connected to the Internet at the time of making this whitepaper and there is no stopping the global trend of connectivity.
- Smartphones (2007) – With the emergence of iPhone as one of the first widely accepted handheld platforms for smart applications the previous trend, the Internet has become even more important in our lives and the future technological evolution. This trend also brought more people closer to financial services by making access to banking and commerce cheaper. Reports by the World Bank state that 2/3 of the almost 1.7 billion people without immediate access to banking services in different countries of the world have smartphones, which allows them to become a driving force of the emerging decentralized financial systems.
- Digital banking (1994) – While traditional banking has been with us for centuries in different forms the global connectivity trend dramatically changed the way we transact today, both in our personal lives and in business. With the digital banking becoming easier to use for people of any age and financial status people have accepted it in their everyday lives. It has stimulated a demand for a wider array of different services, which allowed the traditional banks to move most of their services online and reduce the costs, which even more positively affected the final costs for end users of those services. Juniper Research found that the online banking audience consists of 2 billion people in 2018.
- Distributed Ledger Technology (2008) – One of the most revolutionary concepts that affected the development of decentralized finance has been the DLT (Digital Ledger technology) and the resulting Cryptocurrencies like Bitcoin, Ethereum, DASH and Litecoin. The recent bull-run in the cryptocurrencies market has created a whole industry with a variety of services, ecosystems and companies creating products and experimenting with the new technology to solve many problems of the market.
- FinTech (1998) – After the trend of digitalization of most of the spheres of our lives took off near the end of 20th century large companies and startups alike started creating products for the financial industry to improve the existing processes, reduce costs and allow wider financial inclusivity for more people around the world. Services that appeared on the consumer market as a result of this trend include peer-to-peer lending platforms, apps that allow non-qualified investors to buy assets on the stock exchanges, build portfolio and manage their finance in the broader sense.

1.2 Decentralized Administration in Finance

In today's world the power of banks, states and large corporations far exceeds the power of individuals. This imbalance creates a lot of opportunities for abuse for the benefit of the few in power.

This happens due to the centralization of control over financial wealth distribution mechanisms.

The emerging trend of the past 10 years is the appearance of the means to decentralize such mechanisms.

What is Decentralized Finance?

Decentralized finance describes a new financial system that is built on public blockchains. The most notable examples of such blockchains are Bitcoin and Ethereum. They aren't merely digital money — these systems are built on open-source code and are supported by a distributed team of developers. This means that everyone has the ability to review code and verify that it's working as described. It also means that changes implemented in this code can be contributed by people from all over the world seeking common goals — to allow people to freely transact without limitations of centralized systems, cutting out the middlemen. This property has allowed public blockchains to change the way finance works over the last 10 years, and the biggest changes are still yet to come.

There are six primary features that differentiate public blockchains from the private networks used by governments and traditional financial institutions:

- **Permissionless:** Equal opportunities for everyone in the world to connect to and use the network
- **Decentralized:** Transaction ledgers are kept across thousands of storage locations forming a single replicated database
- **Trustless:** The system is built with an economic game at its core which ensures that all participants are bound to act in the system's best interests and allows peers to trust the system without trusting its participants
- **Transparent:** All ledgers are public, code is public, causal links can be easily understood by anyone willing to audit the ledgers
- **Censorship Resistant:** There is no single actor able to maliciously modify any user transactions

- Programmable: These systems act as frameworks and can be customized for a variety of business cases and logic, with low costs

In such a financial system, users have access to apps that use public networks to take advantage of the new open global markets – but how would these innovations change the global financial system for the better?

Here are five ways that decentralized finance will have an impact on the world:

Inclusivity in access to Financial Services

With the introduction of decentralized finance, virtually anyone regardless of their social status with an internet connection and a smartphone could access financial services. There is a variety of reasons that don't allow access to them in the current system:

- Status: Lack of citizenship, documentation, credentials, etc.
- Wealth: High entry-level funds required to access financial services
- Location: Vast distance from functioning economies and financial service providers

In a decentralized financial system, a common worker in a small region of China would have the same level of access as a sophisticated trader from a financial firm or a large venture fund owner.

Low-cost International Payments

Decentralized finance removes the multiple middlemen that are one of the main reasons for the high costs in traditional finance. This allows to make remittance services cheaper for the mass market.

Currently it's extremely expensive for regular remittance systems users to transact across borders: the average global remittance fee is 7%. The use of decentralized technology in remittance services could decrease the fees below 3%.

Improved Privacy and Security

In decentralized finance, users have insurance of the security of their wealth on the technical level and can send and receive funds safely without the need of a validation from a central authority. Meanwhile, in the traditional financial systems, custodial institutions put their client's wealth and information at risk if they fail to secure it.

Censorship-Resistant Transactions

Another reason decentralized financial ledgers can be trusted lies in its very untraditional property - immutability. What this means is that once the data is in the database it can't be changed without a fork of the chain, which will essentially produce a different chain altogether but is unlikely to happen because of the nature of economic game supporting the protocol. This gives a rather high level of certainty for individuals and allows them to rely on such a system to protect their wealth in situations where traditional money is too volatile. For example, people from India, Venezuela and Zimbabwe are already adopting Bitcoin to protect their wealth from government manipulation and hyperinflation. That's happening due to the fact that Bitcoin which is usually perceived as a "bubble asset" with high volatility turned out to be a lot less volatile than national currencies of these countries.


Interoperability

Blockchain technology today is built with functional scalability and interoperability between different services in mind. The application layer built on top of the blockchain with such properties will allow users from all around the world access to various financial and different other services, all in one ecosystem.

With a decentralized system, a student in Bangladesh could borrow money from people in the United Kingdom, invest in a small enterprise in Italy, and then pay off her loan and purchase an automobile –and all of it can be done using apps running on the same protocol.


1.3 General use-cases for blockchain in different industries

The blockchain is an open and distributed ledger. It only allows to record data in an append-only manner, meaning new records can be appended on to a ledger, but old records can't be tampered with without creating an entirely different ledger. This property allows the ledger to be an easily auditable and solid database that can be trusted by two or more parties without any doubts in its trustworthiness. Today this potential to increase transparency and accountability is already utilized even by some big corporations, even if in pilot projects, but still we are already on the road to change the way two parties can transact with each other. In the end these solutions can and will positively enhance our social and economic systems.



Of course, it's not as simple as that, there are several caveats, but that is true for any complex system that is made to be reliable and highly scalable. A consensus mechanism and a economic reward system for those responsible for database maintenance are necessary to guarantee the integrity and functionality of a blockchain. In the Bitcoin blockchain, consensus is achieved by 'mining', and the reward system is a set of rules that pays a 'miner' with a part of Bitcoin emission every time they successfully verify a block in the blockchain. Mining is undertaken by powerful computers solving complex mathematical puzzles. Once a transaction receives several verifications, and is recorded by all of the computers in the network, miners start solving the puzzle to create the next block. Thus, a blockchain keeps growing (linking each new block to the one before it).

One of the main functions of any business is keeping records of its transactions with other participants of the economic system it exists in. That is, all the incoming and outgoing transactions are kept in some single ledger, that is the essence of accounting and serious business enterprises, even the small ones cannot operate without it. These records are meant to track past performance and help with forecasting and planning for the future. In most companies each recording may take a lot of time and resources to create, and sometimes this process may contain errors compromising the whole ledger and increasing overhead costs. All big companies have entire departments with 10-20 people working to ensure this doesn't happen. This means companies waste a lot of resources and restrict themselves because the current methods are inefficient and the results need to be carefully verified. Currently, transactions can be done almost instantly, but settlement can take enormous amounts of time by business standards - anywhere from several hours to several days. For example, in stock exchange trading when a trader sells an asset the 'sell' operation happens immediately, but further settlement can take a few days because of the inefficiencies in current system. In a similar manner, a deal to buy real estate or automobile can be negotiated by all parties and signed quickly, but the process of registration (verification and recording the change in property ownership) sometimes takes a few days and may involve even more complicated processes and involvement of more middlemen eating up the costs like lawyers and government officials. This happens because in all of the examples above, each party has its own instance of transaction records in, and cannot easily access the ledgers of the other parties involved, so they have to sometimes be manually verified. Also, the formats in which the ledgers are kept are usually different. Overall, the current system has many inherent problems because of the lack of standardization and the need for constant verification.



In an ecosystem utilizing distributed technology such as blockchain, the process of transaction verification and recording is instant and permanent. The transactions ledger is distributed across all of the computers in the network, which means that the records are replicated and stored simultaneously on every system node. When a transaction is recorded in the blockchain, details of the transaction such as price, asset, and ownership, are recorded, verified and settled within seconds across all nodes. A verified change registered on any one ledger is also simultaneously registered on all other copies of the ledger. Since each transaction is transparently and permanently recorded across all ledgers, open for anyone to see, there is no need for third-party verification.

Still there are many problems to overcome before blockchain gets widely adopted by consumers and traditional institutions alike and transforms finance and banking as we know it, the potential resources it could free up for the global financial market are so appealing that many major financial institutions are investing millions in resources to research how best to implement it.

Billions of people and entities are served and trillions of dollars are moved around the outdated global financial system every day. To this day some of it still heavily relies on paper, although spiced up with a digital façade, there are many problems with the current infrastructure that add unnecessary costs and waste time of all its participants delays as well as make it easier for those willing to abuse it for crime and fraud. The financial industry and the powers that be inside and outside of it still heavily resist the change, but blockchain and the value it ought to bring make it almost futile with many people realizing how it can bring a lot of benefits.

Fraud Reduction

Although blockchain is still very new technology (the first example only appeared 11 years ago), its potential to combat fraud in the financial and even corporate world is starting to look very promising even for the most resisting participants of both because nearly half of all financial intermediaries such as stock exchanges and money transfer services suffer from economic crime every year. Internal infrastructure of most of the banks around the world are built on centralized databases that are more vulnerable to cyber-attack because it has only a single point of failure rather than many — once the attackers have access to the one system they are free to do whatever they want. As stated above the blockchain is useful in situations like these because it is essentially a distributed ledger where each block contains metadata (time, block number) and holds separate transactions with a reference to a previous block. This technology will make at least some attacks impossible and others economically non-viable, so it would

exclude some of the current crimes plaguing traditional financial services of today.

Know your Customer (KYC)

Banks, financial institutions and entities tied with monetary market spend extreme volumes of money (\$60-\$500 mln consistently) to sustain Know your Customer (KYC) procedures and ensure compliance with Due Diligence provisions. These guidelines were made to prevent tax evasion and other illegal financial activities by obliging organizations verify and identify their customers. The blockchain technology would permit the check of one customer processed by one entity to be available to third-party entities so the KYC procedure wouldn't need to begin again once more, which would cause a drastic decrease in authoritative expenses for compliance offices.

Smart Contracts

Since blockchains can record and store any type of digital information (although with some limitations, e.g. storing videos is impractical), this includes program executable code that can be launched the moment two or more parties agree on using it, blockchains allow us to use so-called smart contracts. This code can be used to establish electronic agreements (contracts) or perform financial transactions the when certain conditions have been met — for instance if the products were delivered the payment for them could be automatically made.

Payments

Blockchain disruption could be exceptionally transformative in the money transfer procedures. It would increase security and decrease costs for banks to process transfers among organizations and their customers and even between banks themselves. In the present reality, there are a great deal of entities serving as middlemen in the transfers handling framework, however blockchain would remove the requirement for a lot of them.

Trading Platforms

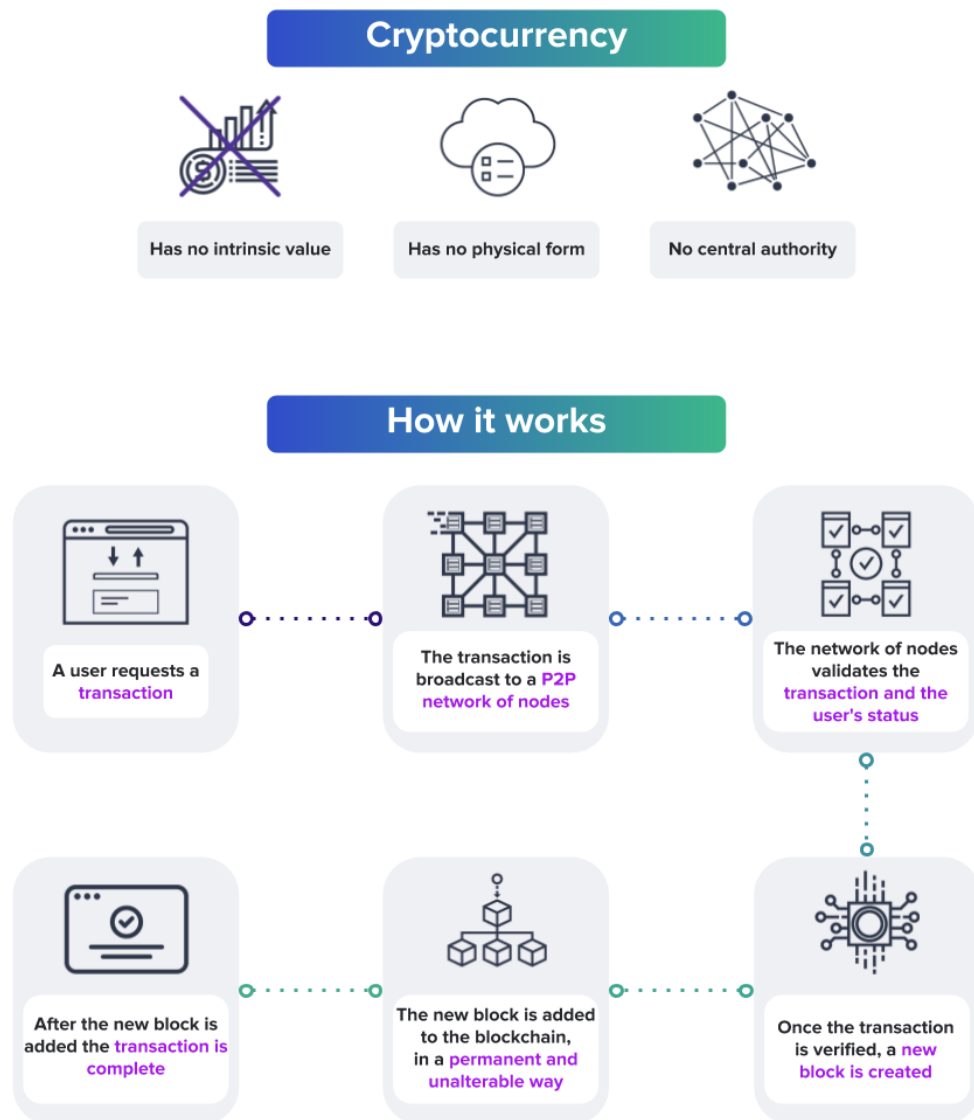
It's hard to imagine all the possible changes that might occur with our trading platforms if they relied on blockchain-based technology. One can be said for sure - the risks of fraudulent activities and errors due to databases inconsistencies will be drastically diminished. Many large financial institutions that are forming the way traditional finance is working like NASDAQ and the Australian Securities Exchange are actively experimenting with the blockchain technology to get rid of inefficiencies and unnecessary costs.

Asset Verification

Both the assets in the real world and the digital assets are currently traded between parties by means of legal documents exchange. This is a time-consuming and ineffective process, but to this date we were not able to replace it with anything. Fortunately with the introduction of blockchain technology it is now possible to simplify the whole process to the exchange of digitally signed (and possibly encrypted) tokens on a blockchain network. This is where blockchain's immutability, speed and security truly shine - trading in the real world can become very similar to trading in an online game: instant, secure and convenient. This opens a lot of new opportunities to revolutionize existing business processes and practices like trading through escrow and insurance.

1.4 Cryptocurrencies

Cryptocurrencies are advanced digital assets intended to function as a tool of trade that utilizes solid cryptography to verify budgetary transfers, control the generation of extra units, and ensure every transaction in the network is verified and valid. Cryptographic forms of money utilize decentralized control rather than centralized, such as in more commonly spread nowadays digital assets and central banking.



The decentralized principle of control is a core design of any cryptocurrency, which works through the Distributed Ledger architecture, most regularly via a blockchain, that fills in as an open monetary exchange database.

In this regard, cryptocurrencies appear as basically the following development of cash. The same way of things in our reality have progressed into getting to be advanced and digitized, cash also has undergone the computerized change. The

contrast between a cryptocurrency and a "Digital Dollar," is that blockchain based currencies can be free of a controlling third-party: there are no Monetary Reserve bodies or Financial Control Institutions that would require participants of a transaction to comply with out-of-the-network provisions. Cryptographic forms of money can be utilized by anyone and anyplace, and can autonomously manage the whole network of interactions, from coin generation and distribution to validation of every transaction processed.

1.5 Cryptocurrency-assisted deal insurance functionality

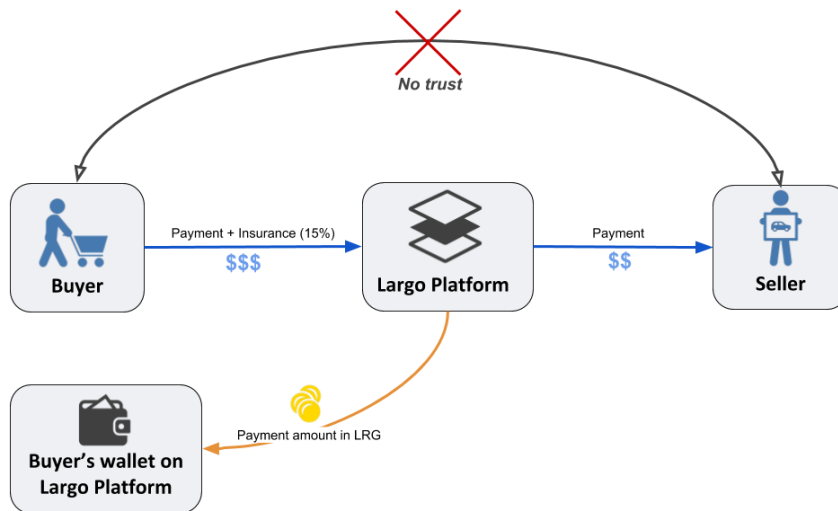
The existing model of deal insurance is working reasonably well but of course like many other practices that have been used for a few hundred years it is far from being convenient in the modern ever-changing world. But Largo team believes that even the well-established and "time-proven" business processes can be improved with the introduction of new technology.

Example:

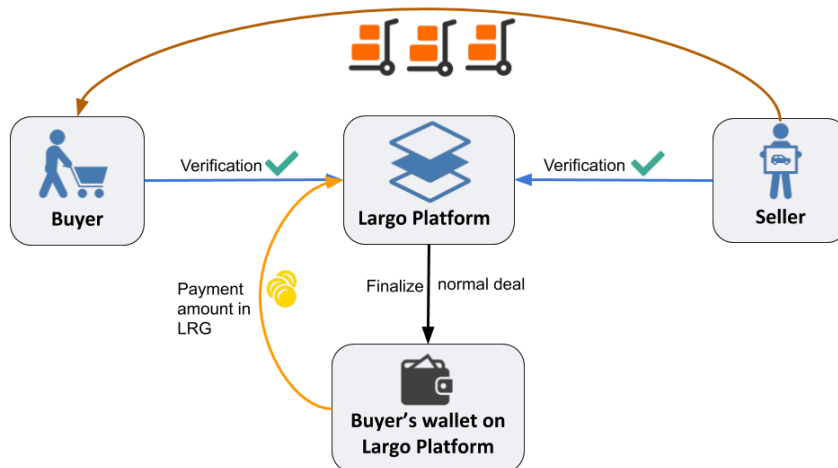
- Two parties wish to transact or exchange goods/services
- There is no trust between the two parties
- Both parties are willing to complete the process in short amount of time and with minimal costs, but without sacrificing the security and convenience
- The buyer can insure his purchase using Largo Platform which will cost him up to 15% of the initial cost
- After transferring the payment and the insurance cost to the Largo platform the buyer receives an equivalent of the initial cost in Largo Coins
- In case the exchange between the buyer and the seller goes normally the platform gets the tokens back
- In case there is a problem the buyer's insurance deposit gets unlocked and he can sell it on an exchange to compensate for the initial cost

Cryptocurrency-assisted deal insurance functionality

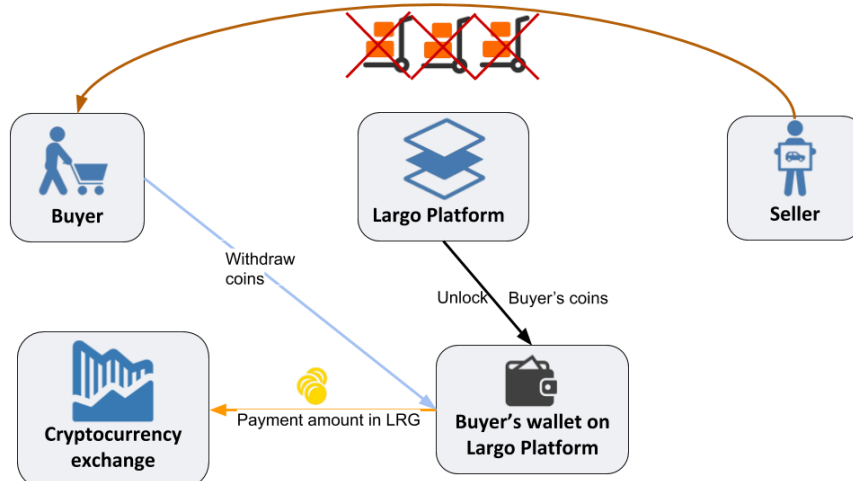
Initial Phase Transactions



If Seller provides the goods



If Seller fails to provide the goods



2 Largo Coin Features

The cryptocurrency evolution is a multifaceted process requiring constant updates and upgrades of the existing architectures to provide the capacity for the growing needs of the markets. Unfortunately, too many networks that appeared over the past years had a tendency to solve only the existing market problems but had little or no recourse to mitigation of the arising issues of scalability and wider implementations, which caused a noticeable slowdown in the adoption of cryptocurrencies.

This has demonstrated that the current cryptocurrency systems will only survive to the extent when they can further be upgraded towards compatibility with the linked economics and applications, which is in its turn only possible in case such development is built into the very core of the architecture.

Largo Coin has its design tailored to the purpose of being both compatible with the current status of the market development and the needs that might arise in the future with the scale-up of the ecosystem.

2.1 Consensus Algorithm

For the first decade of blockchain development, Proof-of-Work was the most known consensus mechanism in the cryptocurrency world. But due to its resource-wise wasteful design, i.e. required real investments into mining equipment and in addition to that consumed a lot of electricity to let it operate, the PoW “solution” has become one of the many problems that the cryptocurrency adopters are now researching to solve. This caused a creation of new concepts like Proof-of-Stake (PoS).

Proof-of-Stake is the technical blockchain term used to refer to the concept in which a user, so cryptocurrency holder, is chosen to validate blocks of transactions on a network based on the amount of coins they have staked; Proof-of-Stake is a type of consensus mechanism in which users of a blockchain-based network are required to freeze some volumes of their coins to have a chance of being chosen to verifying transactions in a block.

When a user is selected to validate a block and provided the user manages to verify transactions correctly, they receive a reward in a form of a certain amount of coins from the network; this process of receiving coins is called “minting”. In

this way, Proof-of-Stake is quite similar to Proof-of-Work, since in both algorithms network participants are involved in the process of validating and reaching the distributed network consensus.

It is important to note that besides simply letting the transactions be updated to the network, one of the purposes of the Proof-of-Stake Consensus algorithms is to ensure security in the blockchain network.

In a PoS system, a forger (i.e. a user verifying transactions) is selected via a two-stage pseudo-random process. The prior criteria for a forger to be selected to verify transactions is whether they have deposited a stake in the blockchain network. In this case, the chance for being chosen depends on the amount of network digital currency staked; a higher stake determines an increased eligibility for block validation.

Staking the network digital currency for a forger is not merely holding it, but actually locking it in the network without an ability to withdraw or move frozen funds in order to have a chance for being chosen for block validation. Thus, the more funds are at the point of time locked in by a user, the greater the chance of becoming the block validator for that point of time.

The mentioned above instigates the fact that unlike other consensus algorithms, Proof-of-Stake prevents fraudulent attempts to tamper the network security: every forger stakes their funds in the network, which makes it financially disadvantageous to perform a malicious activity during the process of validation for everyone involved.

Another core advantage of the Proof-of-Stake architecture is that it is efficient in terms of outside of network resources: contrary to the more common Proof-of-Work, PoS systems require no dedicated hardware such as miners for validation, which is both financially and energy-wise inexpensive.

Furthermore, the potential benefit of the PoS systems is that their architecture mitigates the risks of a 51% attack, in which a certain group of network users controls the larger part of a blockchain network computing power in order to use it for personal interest: in a PoS system network users are financially deterred from initiating 51% attacks since in order to do so they in the first place are required to stake their own volumes of the network digital currency and thus are expected to lose it in case of malicious activities, while in the Proof-of-Work a fraudster might encounter financial losses coming from the dropping price rate of the cryptocurrency affected by dishonest operations, but will still sustain the expensive equipment used for the 51% attack.

Besides, another risk of Proof-of-Work Consensus protocols as compared to Proof-of-Stake is that in the first it eventually becomes plausible some users of the network might gather their computing powers by creating mining pools which will again lead to a situation in which a group of miners control 51% or more of the blockchain network. In this case the system will soon become centralized since the block rewards in the Proof-of-Work Consensus Protocols grow exponentially in accordance with the growing computing powers of a group of miners: the higher the computing capacity of a mining pool, the significantly larger numbers of blocks such pool manages to validate, and consequently, the bigger the reward gap between the pool and the other users. At the same time, in the Proof-of-Stake based protocols the increase in reward in accordance with the volume of cryptocurrency blocked in the network sustains a linear proportion.

2.2 Master Node based security

A Masternode is a blockchain network full node or computer wallet that stores the full copy of the distributed ledger in real-time up-to-date, but Masternodes serve a considerably different set of functions as compared to regular nodes.

The key factors that make Masternodes differ are the particular functions they perform besides storing the ledger and completing blocks of transactions in the blockchain.

The list of special functions that Masternodes are responsible for is:

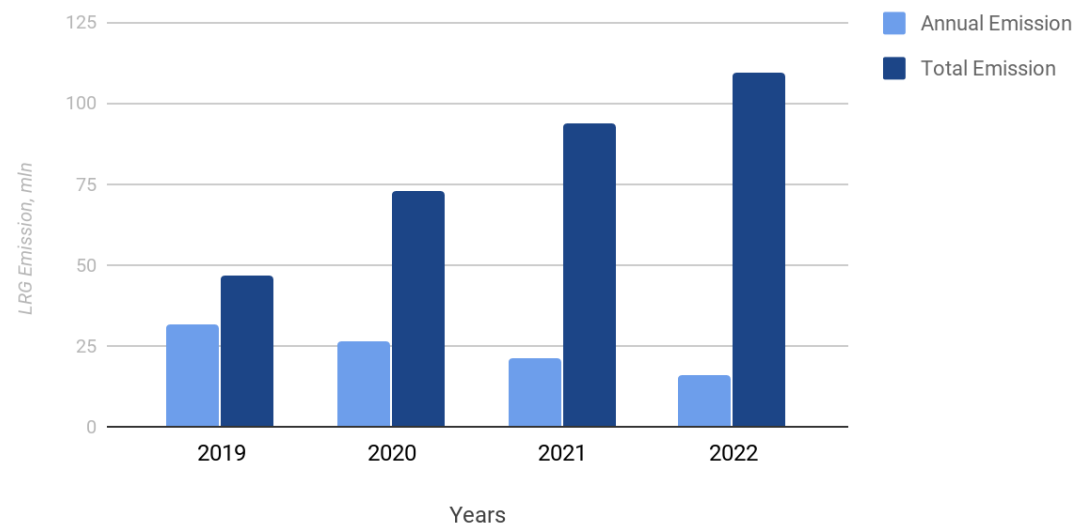
- Increasing privacy of transactions
- Enabling instant transactions
- Governing and voting

2.3 Mining/Minting & Emission

In accordance with the Road Map Development Plan, the main features to enable the soonest mass adoption of the ecosystem will be released in the first year of launch; because of that a significant volume (roughly 20%) of the emission of Largo Coins will be minted during that period. After the first year, the block rewards will be gradually reduced every year to compensate the effects of inflation and to further increase the potential for market price growth of Largo Coin and to reduce the sell pressure on the exchanges. The total emission will be limited to 200,000,000 LRGs for the same purposes of ensuring ecosystem scalability in accordance with the stable price growth. In that sense, Largo Coin is somewhat similar to the world's most spread and widely accepted cryptocurrency, Bitcoin, but intends to reach the mass occupation of the market in a significantly shorter period of time: despite the emission volumes will constantly decrease and the remaining Master Nodes will receive a proportionally lower rewards, it will nonetheless provide sustainability to Master Node owners in the monetary equivalent due to the constantly enlarging network and Largo Coin increasing usage.

Largo Coin Emission

Total Emission = 200,000,000 LRGs



2.4 Largo Coin Wallet

Largo Foundation realizes the needs of the peer-to-peer transfer systems and therefore is to develop its own sophisticated multi-platform software - Largo Wallet, that will be available in desktop, mobile and web versions, all to ensure convenient use, easy transfer, security and financial sovereignty to Largo Coin holders.

2.5 Largo Coin Specs

Ticker	LRG
Hashing algorithm	SHA256
Consensus algorithm	PoS+Masternode
PoW block reward	200
PoS block reward	0.1
Min PoS age	1 hour
Max PoS age	unlimited
Coin send maturity age	6 validations for regular transactions, 16 validations for PoS reward coins
Coin mint maturity age	1 hour
Masternode min coins requirement	7 500 000 LRG
Block time	120 sec
Tx fee	set by user; the larger fees get higher priority, the fees are burnt upon transaction completion
Premined coin amount	15 100 000
Max supply	200 000 000 LRG
Coin website	www.largocoin.io
Block Explorer URL	block.largocoin.io
Github URL	https://github.com/largocoin/core

2.6 Largo Foundation

Largo Foundation is an independent non-state entity that unites professional blockchain and crypto developers with visionaries and enthusiasts of cryptocurrency integration and adoption in order to ensure stable and gradual expanse of the Largo Coin Ecosystem.

On the prior goals of the Foundation in the development of the Largo Coin Ecosystem is an initial release of all the open-source code, wallet and block explorer to mass use. After the release, the Foundation will dedicate its expertise and effort to ensuring constant upgrade enabling compatibility with the users' and enterprises' demands in functionality and further development in security, sustainability and adaptivity.

At the time of release of this article, Largo is being developed in the test-net. In accordance with the Road Map, the main net will be launched in Q1 2019, that will begin with a creation of the genesis block and assignment of the start emission to all the initial coin offering participants.

2.7 Largo Model of Operations

Largo Coin is a company that will create trust on all the markets that include some kind of trade between its participants. Largo Coin specializes in deal insurance and escrow service internationally, via Largo Platform. Largo platform is a digital platform that utilizes latest technological advancements, including blockchain technology and cryptocurrencies. LRG coin is a cryptocurrency that is at the core of Largo Platform, used to ensure the safety of deals between parties transacting on Largo platform. It is used to compensate the party that insures the deal and also as escrow deposit. LRG coin is already traded on cryptocurrency exchanges which makes it a liquid asset and a very convenient tool to secure deals with minimum risk.

To use the escrow services provided by Largo Platform buyers need to purchase a certain amount of LRG coins on open exchanges. This will provide a constant demand for LRG Coin, enhance its circulation and increase trade volume.

3 Largo Coin Financial Applications

3.1 Enterprises

Financial Security During Transfers

A standout among the most evident advantages of digital currency to both customers and organizations is the security it allows for information exchange processes. Safety and security is a noteworthy worry for everybody at this moment, particularly with the various information breaks that have occurred in the course of recent years.

Cryptocurrency gives an a lot more secure strategy to information transmission, particularly concerning budgetary data. Blockchain improves the security of sensitive client data by separating the information from each exchange with the goal that the data is never put away in a solitary spot, which makes it less likely to be manipulated and tampered with. This gives clients a feeling of protection in online cash exchanges, which can mean a lift in client certainty and loyalty for organizations that actualize this innovation.

Reduce friction in business transactions

Overseeing spending is a hard task in many institutions. On the other hand, businesses could make a self-administered blockchain system for vendors, suppliers and contractors, which could alternate current solutions with smart contracts, instant transactions, and Internet of Things (IoT)- initiated shipments. Not requiring human control, mistakes and missing data will be diminished crosswise over transfer processes, and transactions would happen quicker in light of the fact that customers and suppliers would have a direct connection.

3.2 B2C & C2C

Enable distributed, autonomous marketplaces

Blockchain enables resource proprietors to track and exchange things of significant worth in a safe, straightforward, private, and self-accommodating "chain" of transactions. This ability adds speed and adaptability to money and

resource management and control. For instance, utilizing invoices from business asset arranging applications, organizations could raise required money rapidly or quicken income by selling such invoices on an independent marketplace.

It is likely there will appear growing numbers of autonomous marketplaces: basically, a blockchain-based exchange gets rid of the requirement for outsider oversight in light of the fact that the product itself is a controlled and open structure which information is visible to all network members. Therefore, entities can see their advantages multi-dimensionally to assess the actual value rather than simply obtain the face value.

Low Processing Fees

Practically all types of wire transfers have applicable transaction fees. This is on the grounds that there is commonly a middle person that processes the transaction and receives a fee. For instance, a private company accepting credit card is normally on the average charged 2% – 3% by the processing organization. This also applies to such organizations as, for example, Stripe or PayPal.

Largo Coin, on the other hand, will have significantly lower transaction fees due to its peer-to-peer architecture, which excludes the presence of multi-layer middle-men in the transferring process.

High Transaction Speed

Cryptocurrency transactions take close to zero time to be processed: for instance, it takes Bitcoin miners around 10 minutes to check and process a transfer. There are even protocols like Litecoin and Ethereum that validate transactions in as meager as 20 seconds. This implies coins are sent into one's wallet in 10 minutes or less. This is quicker than the 2 – 3 days it requires a traditional wire transfer to clear. However, with Largo Coin the transaction time will be shrunk down to mere seconds, thus enabling instant processing of payments.

All Transactions are Final

Contrary to ordinary wire transfers, all cryptocurrency transfers are final. This implies there is no chance a consumer could cancel a charge and nullify a deal. Vendors are hence ready to control their return algorithms better as it expels the danger of chargebacks and other occurrences that may threaten their incomes. This additionally protects from customer fraud, for example, when counterfeit credit cards or bills are utilized or when a client falsely debates a legitimate charge.

More Payment Options for Customers

Regularly, the more payment choices there are available provided by an independent company to its client the better. In the event that a private company chooses to accept cryptocurrency payments it has the capability of drawing in a more extensive client base.

3.3 Blockchain-assisted Escrow

Largo Coin for Escrow Services

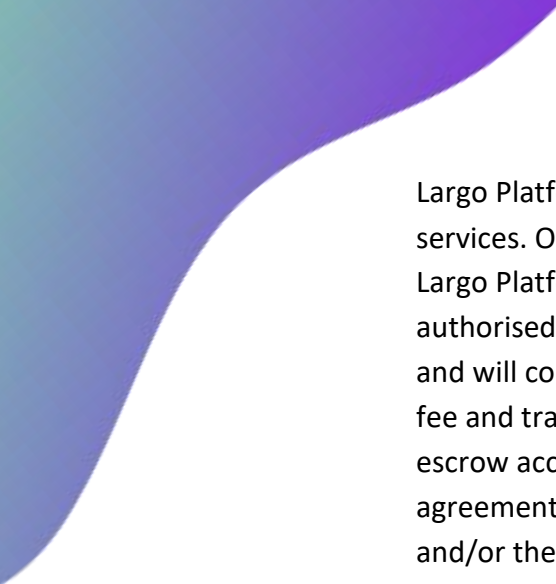
Largo Coin is an ultimate tool to use for providing and obtaining escrow services to ensure safety of buyer and seller's interactions within the Largo Coin Ecosystem: Largo platform will operate as an escrow provider for transactions of any volume and in any possible location.

Escrow is a money related form of agreement in which two parties enlist an intermediary to hold cash, asset, or other resources for a period of time until the transaction is finalized. The intermediary is known as an escrow provider shall be an entity that is not connected with either party and ensures the transaction between the two parties is compliant with the established agreement.

Escrows are often required when transactions process large amounts of money or when the seller and buyer operate in a low trust environment.

How Escrow Works

1. The parties form an agreement: prior to processing the transaction both parties define the terms of their agreement and invite an escrow provider.
2. The buyer pays for the escrow service; then the buyer transfers the payment to the escrow provider. Once received the transfer, the escrow provider notifies the seller the payment is secured.
3. The seller fulfills his or her part of the obligations according to the registered agreement by sending goods or providing services to the buyer. The seller is regularly required to provide tracking information to the buyer to monitor the state of delivery or shipment of goods.
4. The buyer accepts the services or goods provided or sent by the seller, inspects and verifies the quality of goods or services complies with the initial agreement.
5. Once the buyer has accepted the goods or services the escrow provider further processes the payment transaction to the seller; in case the buyer refuses to accept the goods or services, the transaction is frozen in the escrow account and will only be released once the buyer and seller settle their differences according to their initial agreement.




Largo Platform will have a committee of assigned validators to enable escrow services. Once a transaction between the buyer and seller is registered on the Largo Platform, an escrow account will be created. An assigned validator will be authorised to revise the terms of the agreement between the buyer and seller and will control the escrow account. The buyer then will pay the escrow service fee and transfer the payment within the agreement in the form of LRG to the escrow account, where the funds will remain frozen until the terms of the agreement are fulfilled. In case the terms of the agreement cannot be fulfilled and/or the contract between the buyer and seller is terminated the funds frozen in the escrow account will be returned to the buyer.

Unlike off-platform escrow services, Largo will provide the functional necessary to verify the assets of transactions, monitor validity and compliance with registered agreements and hold tracking and shipment information and details within one easy-to-use interface.

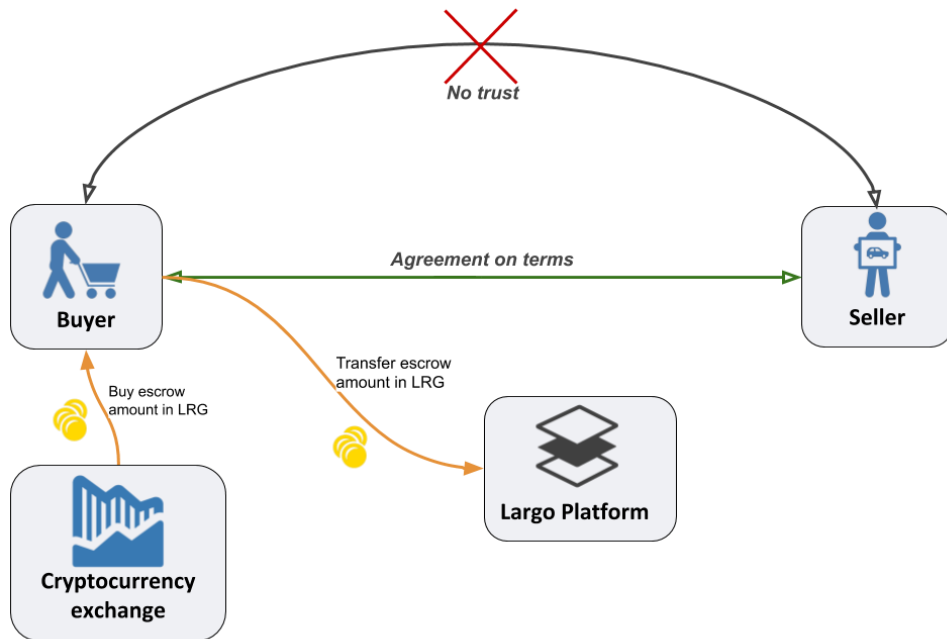
Using LRG as the means of transfer would allow to minimize cost and maximize speed of transactions; every deal will be registered within the platform which will make it transparent for every party involved.

Applying for an escrow service on the Largo Platform will eliminate the dangers of dealing in a low trust environments, especially when the buyer and seller process trans-border transactions.

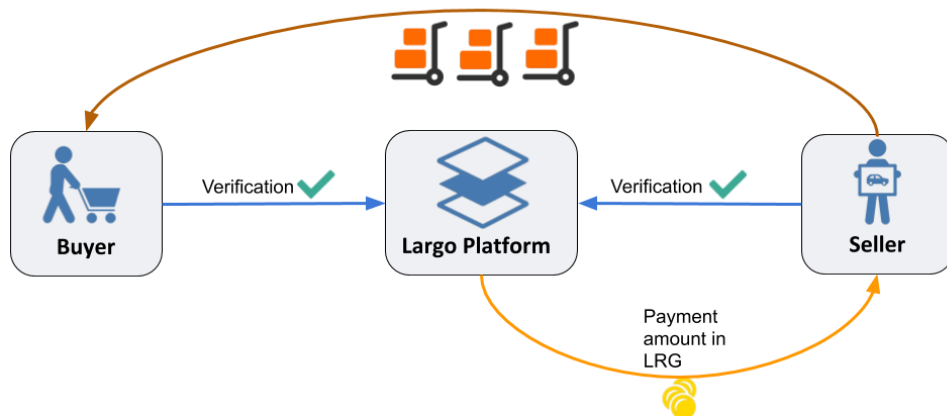


Largo Escrow functionality

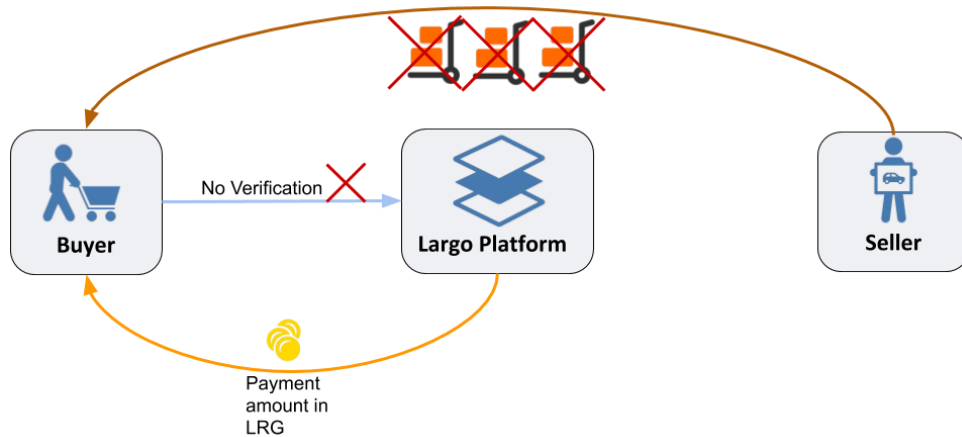
Initial Phase Transactions



If Seller provides the goods



If Seller fails to provide the goods



4 Cryptocurrency Markets

Until recently, instability of cryptocurrencies and lack of regulatory base made a lot of traditional investors skeptical about the market overall, while fund managers that essentially control vast sums of money entrusted to them by other people were not even legally allowed to put those funds to use in a highly volatile and risky cryptocurrencies markets. This kept them out of the big game happening in 2017 and made them stick to the usual stock markets. But all throughout 2018 and in 2019 the attitude was changing, both in of the investors and in the regulatory space. Traditional money is slowly coming to terms with the young cryptocurrencies market, starting to understand the benefits it might bring, both financially and technologically. This is a major shift bound to change the scene and give it a new life.

4.1 Current market status

During the previous year's declining market traditional investors already started buying some of the most trustworthy assets like Bitcoin, XRP, EOS, TRON. On the other hand, some of the very large corporations started exploring the blockchain technology space for the benefit of improving their business. Some startups that are actively developing blockchain products and services received venture investments to continue pursuing their goals with a significant backing. Companies like IBM, Microsoft and Oracle turned their attention towards private blockchains. Bloomberg reported that Rockefeller family and George Soros invested significant amounts of money in the cryptocurrencies. The former's funds are estimated to be around \$26 bln.

Institutional investors take a lot of interest in Bitcoin and other cryptocurrencies for a reason: they want a safe haven in times when the traditional market might be turbulent. And there's a reason for them to be even more optimistic after what happened to Bitcoin between August and November 2018. During that time Bitcoin showed less volatility than the stocks of the largest tech companies like Apple, Amazon, Google and Facebook. This phenomenon certainly captured their attention even though a "flat market" was depressing for most of the casual Bitcoin investors that were waiting for a new bull run. But in a world where giants like Facebook face Senate to explain how their users data was abused to form public opinion and trade wars happening between whole continents that "boring stability" is worth a lot.

Apart from financial institutions and entities, more government structures are penetrating the field of cryptocurrencies, however, mostly such studies and activities most commonly involve investigations of the blockchain technology implementation and developing sophisticated regulatory provisions, rather than encouraging a wider acknowledgement and adoption of crypto-finance concepts.

Nonetheless, the development is far from its end: there still exist various design and functional drawbacks that postpone mass adoption to the market. These drawbacks and problems are caused by multiple technological, application, educational and financial reasons, that include the amateur stage of the whole crypto-industry, lack of recognition and understanding of the concepts of blockchain and cryptocurrency implementation and its new nature of financial interactions.

Market problems

Lack of security

It has been the major problem that crippled the funding of many blockchain protocols, at least to this day. But despite the fact that the cryptocurrencies and blockchain market is still very young the speed at which the technological advancements in this sphere appear is exciting to say the least. The market was essentially started by a few enthusiasts willing to conduct a social and economic experiment and possibly change the way some things work in the world. But that quickly changed as more and more people started believing in this technology - today seasoned professionals from all industries (and mainly from technical specialties) are working to make blockchain technology the next logical step in the evolution of business, finance, governance and other spheres of life. That is becoming possible with blockchain technology getting the same level of reliability and user experience as the more traditional, centralized infrastructure solutions. It's still a relatively slow process but a keen observer can spot major differences between the market today and the market 10 years ago. Those differences mainly include the different frameworks that have been time-proven and allow one to build a complex ecosystem with tools working "out of the box".

Lack of trust in transaction involving off-chain assets

Whenever users are processing a transaction that involves a non-fungible or tangible asset, in case of loss of the latter or whenever the completion of some form of agreement requires validation - there is no other way but to involve an off-chain entity to be the oracle or validator. This means, that there is a certain need to rely on a centralized third party. This approach is no different from the existing centralized off-chain solutions.

High Transaction Fees

Due to insufficient computing powers of networks of that time, over the past few years cryptocurrency traders had an average expense of roughly \$5 to \$25 dollars per transaction, which might at first glance appear a relatively small fee, but on the other hand regarding the mass-market of money transactions such charges eventually turn out to be inadequate expenses compared to the volume of an average transaction.

As more individuals adopted the use of cryptocurrencies, the growing exchange and transaction volumes turned out to be a lot for miners to deal with prompting a clog in the system. Subsequently the fee expenses rose to remunerate the miners.

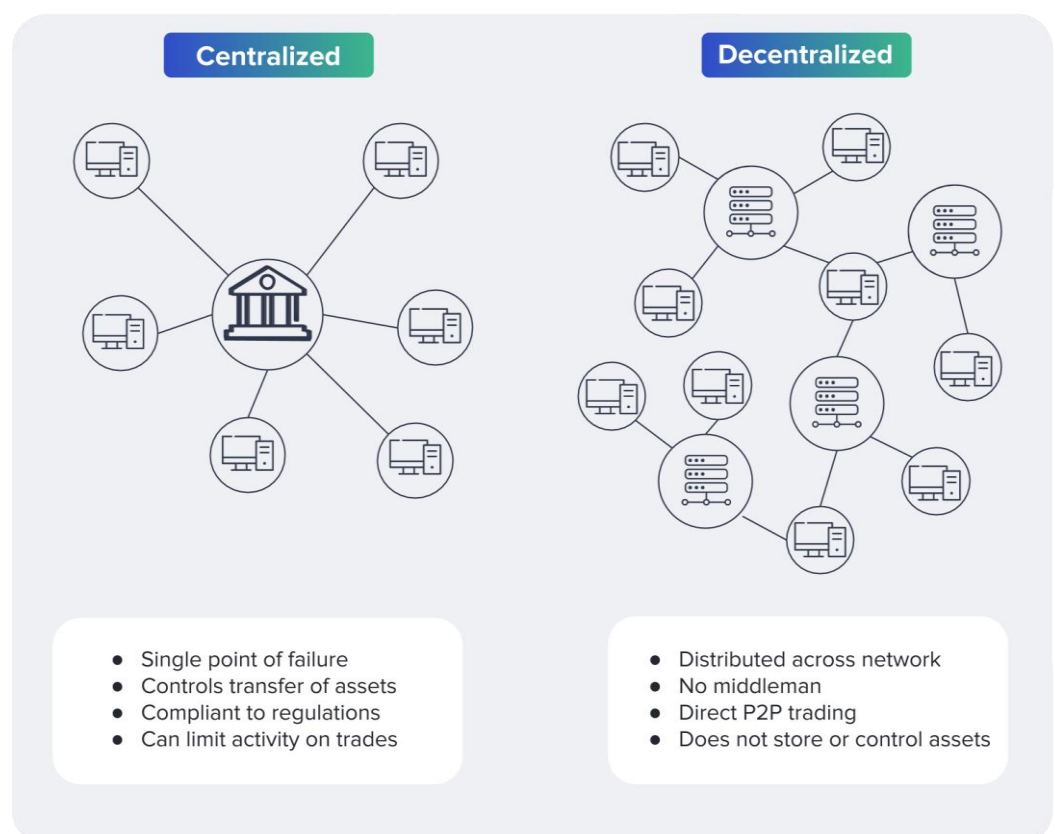
Be that as it may, as the exchange expenses expanded, cryptotraders attempted to move base from Bitcoin to different cryptographic forms of money like Ethereum and Litecoin where the clog was less and the charges were less expensive which only served a short-term solution since the high volumes migrating to these systems unavoidably expanded the network load and correspondingly, delays and expenses.

Forecasts

The distinctive decentralized and self-managing design of cryptocurrencies is to become the life-changing key in the replacement of various traditional centralized systems of financial control, for example, banks, taking out the necessity for a middle man. That will enormously rearrange the procedures of online exchanges and transactions along with decreasing expenses for every party involved.

Furthermore, blockchain will let the world move on from the current era of “analog trust” to the next age of “digital trust”. Operating on the distributed ledgers will enable a development of next generation validation and reputation systems. Storing transaction history in the blockchain may serve the needs of users running their financial activities in a low-trust environment: the immutability of information stored within a blockchain network will ensure contracts and agreements signed between the users.

The current status of blockchain adoption is characterized by a lack of real use-cases presented by most companies developing distributed ledger solutions; at the same time regulatory provisions are being developed putting more and more jurisdictions in the stage of enabling a healthy environment for mass integration. Thus, with an increase of businesses and projects that would introduce real applications the development pace of DLTs will rapidly increase.



4.2 LRG Fundamental advantages over current market participants

Limited supply

LRG has a limited supply of 200 000 000 coins. This means that at some point in future the emission will stop. But even before that it creates a positive mathematical expectation in the eyes of traders and investors. The reason for this is that at some point the inflation will stop completely while usage of the coin will continue increasing, which will constantly increase demand for the coin, positively affecting the price.

Integration into business processes

LRG has low costs, robust infrastructure and is easy to use and integrate both for individuals and companies. It also fits the modern necessity for systems that are both capable of supporting micro-transactions and high-volume rapid and reliable transfers.

Constant Demand increase due to profitable PoS architecture

As compared to most commonly spread cryptocurrencies, Largo Coin incorporates the advantage of higher price growth stability: LRG holders are first of all incentivized to sustain their volumes of LRGs out of the freefloat in order to receive larger gains from transaction validation, and secondly they are financially discouraged from anyhow tampering with the security of the network.

High-end security

The combination of the state-of-the-art Proof-of-Stake consensus design, that ensures loyal user-enabled legitimacy of transactions, and Master Node validation and control allow for multi-level decentralized, autonomous and sustainable protection that scales-up with the growth of the entire network.

Low-cost transaction fees

The technology behind LRG ensures that it is much more economically viable than most other cryptocurrencies on the market today. The main reason of that is the Proof of Stake consensus algorithm combined with the Masternodes. PoS makes LRG's transaction fees very low compared to the current giants dominating the market - Bitcoin and Ethereum. In Proof of Work-based Bitcoin,

for instance, the practical transaction fees can reach up to \$37.5 which is sometimes even more than conventional remittance services transaction fee while PoS-based LRG practical transaction fees are around \$0.0001 and can even be free.

Real use-cases for businesses in any industry involving trade

Largo Coin is fundamentally superior to its market competitors because unlike many other cryptocurrencies it has all it needs to get widely adopted by many businesses of all sizes: real use-cases, simple-to-understand value for enterprises, easy-to-use tools, and huge growth potential.

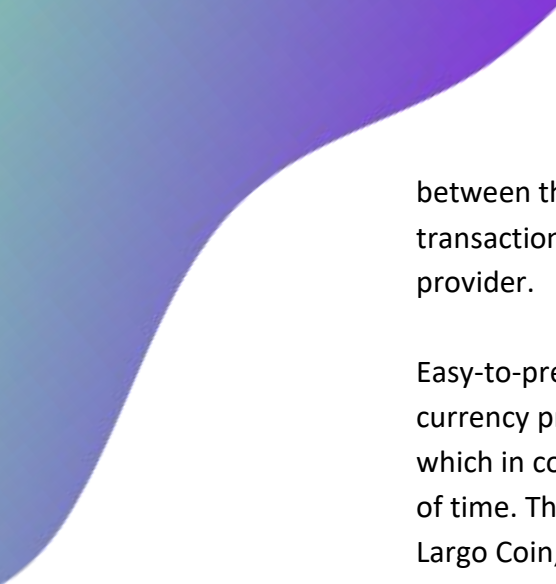
4.3 Financial benefits of LRG adoption and integration

Unlike currently widespread cryptocurrencies, such as Bitcoin or Ethereum, where investors buy cryptocurrencies to have a chance of gaining profits in case the price rate grows, Largo Coin economy model incentivizes users to obtain and hold. Thus, the more LRGs a user freezes to the Master Node for verifying transactions, proportionally the higher reward a user gets. Therefore, the users are likely to hold and buy more of the free-float and, by extension, make the network more stable and secure than to simply speculate on their holdings.

Besides, in order to obtain a Largo Network Master Node for the purpose of sustaining the operation of the system and receiving rewards for transaction verification, an individual or entity will be required to buy it with LRG, rather than more common Proof-of-Work based cryptocurrencies, in which one in order to start mining has to invest not into the actual cryptocurrency, but contrary to that, cash out and acquire computing equipment and power.


Benefits for retail trade worldwide (no chargeback)

Even though fiat systems that include escrow are expected to mitigate the dangers of chargeback by involving a third party there is still room for dishonest behavior in a particular situation. For instance, in cross-border transactions that take longer time to be actually processed, there is a chance the buyer revokes the transaction through his or her bank or processing system; at the same time the seller on the other side will have already received a verification of the transfer. Such occasions could not happen in case the transaction requires from several hours to several days, as it happens with deals of relatively larger volumes, such as transactions related to estate, but may occur in smaller retail. In online b2c and c2c retail, where smaller sums of money are transferred



between the buyer and seller, banks and processing companies often confirm transactions before they are actually digitally processed to the agreement safety provider.

Easy-to-predict price of LRG allows to protect all parties involved in trade from currency price fluctuations - for any large deals, verification and processing of which in compliance with a registered agreement requires a significant amount of time. The nature of Largo Ecosystem ensures that the price of its core token, Largo Coin, stays within foreseeable margins. This is due to the fact that Largo Coin is based on Proof of Stake consensus and stable emission algorithm. These features ensure that there are no price spikes or sudden drops, essentially providing a significant financial benefit to all parties that use Largo Platform for deal insurance or escrow.



5 Roadmap

02.2019



Coin code development



GitHub repo deployment



Testnet: 2 nodes, 1 masternode



03.2019



LRG Blockchain Mainnet launch



Block explorer launch



PoW mining pool launched



Repository Wiki Finished



Win, Linux, MacOS, Android wallets



Linux node and masternode



Release with binaries



04.2019



Bugfixes; Second Release



11.2019



LRG Social network pages



LRG BitcoinTalk page



02.2020



LRG Listing on Coineal Exchange



03.2020



Largo Platform Development start

06.2020



Largo Platform first release

6 Team



Thomas - CEO, with more than 15 years in payment processing he began to develop cryptocurrency business solutions in the early 2014, with his investigations and expertise leading to a creation of the current Largo Coin and Ecosystem solution.



Dong - CTO, has more than 12 years of experience in designing complex information systems for large Chinese enterprises; over 6 years of sophisticated technical experience in blockchain.



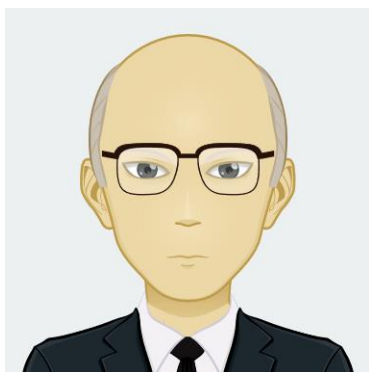
Cui - CMO, applies her fascinating experience from BBDO digital marketing to ensure brand recognition for Largo Coin and partnership with businesses and communities globally.



Andrew - CFO, formerly an investment banker, has rediscovered the possibilities of the coming financial revolution with cryptocurrencies. Andrew believes there is a definite future in cryptocurrency applications to both B2B and C2C applications.



Zhong - Lead Designer. After successfully creating visual design for 2 out of top ten fastest growing apps of 2018, Zhong joined Largo Team to create the best user experience for Largo Community.



Hirayama - Head of Business Development. Having successfully lead sales departments in largest retail companies in e-commerce, Hirayama decided that he needed an even more challenging task in his career and joined Largo Coin.