



HOLONUS NETWORK WHITE PAPER

June 2020

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1. Our Vision

Toward the realization of DAO (Decentralized Autonomous Organization)

At present, the idea of individual freedom—that is, the ability to freely decide one's own behavior, and life—is commonplace for many people and is considered as one of the natural rights in most countries and societies.

Personal freedom was once acquired by the revolution in Europe and has permeated society more widely through the rise of capitalism since the Industrial Revolution.

But can we really say that nowadays people are free to decide their own lives and retain their way of life without being bound by anything else?

Looking around the world widely, many people work for companies, receive a fixed monthly salary, and are engaged in their daily work as a member of a fixed organization.

Of course, the creation of a company as an individual or work as a freelance employee based on our own decisions is also possible, but it is not always accessible to the population as a whole.

In addition, most of the socio-economic structure is inside a pyramid-type hierarchy with a handful of large companies at the top, and even if an individual chooses a free way of working, it is economically incorporated into that structure.

It is also true that there is no other choice but to avoid this, having the possibility of free economic activity.

Economic design on the Holonus platform allows application developers and content creators to receive incentives at the motivation stage and more legitimate exchange of value creation across the market.

Holonus frees people from the hierarchical structure that still exists in modern society and enables the realization of economic zones by a true DAO (Decentralized Autonomous Organization).

A platform for individuals by individuals

Satoshi Nakamoto's advocacy of guaranteed transactions between individuals without third parties, and the birth of Bitcoin using the blockchain that realized it has a great impact on the world.

"Assurance of reliability that does not require a specific authority" is one of the essences of blockchain technology. And that has greatly shaken the hearts of those who questioned the existence of the hierarchy that governs society, leading to the rise of various blockchain products.

The Holonus project was likewise created with the idea and passion to manage to break through a centralized economic structure.

We chose the challenge of being a DApps platform with unprecedented features and design.

Holonus is a platform where the reliability of transactions is guaranteed by the "user group" itself.

A small amount of commission fees is directly returned to not only the operator but all the users of the platform including the developer, and the maximum purpose is to build an unprecedented complete DAO economic zone.

The return assets in the Holonus economic area are also made to end-users.

Speaking of "the more applications that are used on the entire platform, the greater the amount of return to the users themselves" is that you can understand how original this economic zone concept is.

Holonus Contribution to organizational economy

Holocracy [Holonus + Democracy] is a concept that is considered to be the next-generation organizational system in which each member of the organization has no title, title, or hierarchical relationship, and each person has wide discretion in accordance with predetermined rules. With the rise of blockchain, attention has been paid in the context of smart contracts as being able to express this "rule" clearly and autonomously.

However, although some companies are proceeding with the introduction to the field on a trial basis, it seems that society as a whole is still far from being generally involved in this.

We believe that Holonus can bring about one realistic solution to this concept of Holocracy at a certain volume of application developers.

There are two major benefits to Holonus for developers.

The first is to provide the blockchain API by middleware, and the infrastructure design that does not require a large initial investment. This will enable developers to bring smaller and higher quality products to the world, while at the same time developing services that people around the world can use at the individual level.

To do something big, choose many other freedom-restricted paths. You no longer need to be tied to your organization by inflexible contracts.

The second benefit is a unique economic zone design centered around a single HOLON coin.

Payments on the platform are made via the blockchain and distributed to developers via contracts. This will enable the flexible management of development teams that can be aggregated and separated and will enable people to engage in value creation in various ways.

A society where everyone can be a creator of value and enjoy it

Holonus's uniqueness as an application platform goes beyond that.

Holonus unblocks blockchain technology, which is difficult for the general public, and provides it to developers as an API that anyone can handle.

In other words, this is similar to the commands and functions in PC application development, so that it is possible to develop DApps without being aware of the blockchain, using the Holonus API, so that you can develop without being aware of the existence of the OS.

The blockchain's product scalability and fault tolerance are great. This was merit that could only be enjoyed by a handful of developers before, but using Holonus makes it possible to benefit many and small applications.

Holonus is more than just a blockchain product, it is also a provider of cutting-edge technology that can be widely returned to the world.

2. Holonus Overview

Holonus is an innovative platform solution that implements the new P2P ecosystem based on blockchain and distributed cryptographic technology. The new ecosystem of the platform provides an innovative environment and stimulating technical design, where people and companies can maximize the benefits of technology and IT services for the development of their applications, companies, and businesses.

Regardless of whether you are a private individual or a company, you can create your own distributed application that uses the Holonus platform as a basic solution for transactions and data transfer.

Moreover, the data can be any and in addition to the texts to date, Holonus supports all content, such as voices, audio files, and videos.

The platform also provides the possibility to issue its own blockchain-based digital assets, and transfer, processing of digital assets in various blockchains through Holonus system applications and interaction with participants.

The Holonus platform supports a very wide range of assets, such as all cryptocurrencies - tokens, coins, digital derivatives - stocks, bonds, futures, options, depository receipts. Also, any banking products - loans, mortgages, insurance, loans, and leasing products can be issued as digital assets and have circulation based on the Holonus platform.

The main idea of creating Holonus is to provide a platform that allows absolutely any person and company to freely use the blockchain and carry out economic activities both within their own country and freely around the world.

The platform will first be built on the basis of the Ethereum blockchain and smart contracts since Ethereum is currently the leader in the number of DApps developed.

Then, in 2022, there will be a transition to own Holonus blockchain distributed network.

We are creating a platform solution with support for cryptocurrencies of other blockchains, the possibility of issuing our own coins based on the Holonus blockchain, as well as with our own platform coin Holon, which will be used to pay commissions for using the network, creating DApps and creating coins, based on the Holonus blockchain.

Holonus is the next generation dream blockchain due to its high availability to users. It allows any user to create DApps by implementing a connection to the platform using the API, which does not require knowledge of additional programming languages or knowledge of the operation of blockchain technology.

The Holonus blockchain complies with the complete principles of registry distribution and

decentralized system - this is a concept that has an unseparated chain of blocks, fully autonomous and does not require a certain and centralized “authority” from the outside of the network, and uses the trust of a group of individual participants in this distributed system.

So what is the uniqueness of the Holonus network among the numerous blockchain products and platforms?

This is a “fully autonomous” application platform, which also includes an independent and sustainable economic design that allows all network members to maintain free economic relations around the world.

Holonus application platform is a market service that brings together application developers and application users in one place and ensures the decentralized distribution and usability of applications. The App Store and Google Play are typical platforms that are currently popular. This is a centralized service in which supergiants such as Apple Inc. and Google LLC, function as a “main organs” , but Holonus is a “distributed” or decentralized platform due to the use of the blockchain.

Thus, Holonus provides greater availability, convenience, and independence compared to centralized counterparts.

In addition, thanks to a carefully thought-out system and full automation, the platform does not require a special working body and can be supported “autonomously” only by the application developers and its users by installing nodes. Holonus is a free and self-regulating autonomous system with absolute freedom and ease of use.

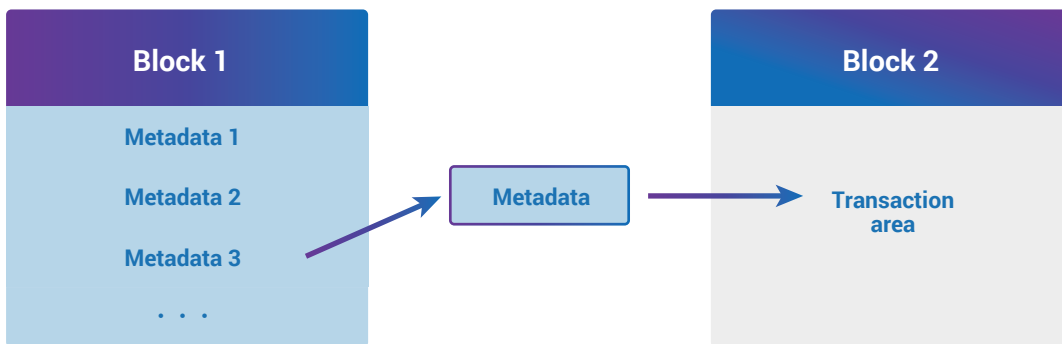
Unique economic design = The incentive design for each player is combined, and we can say that the product has extremely high strength at the business/organization level.

3. Holonus Network Explanation

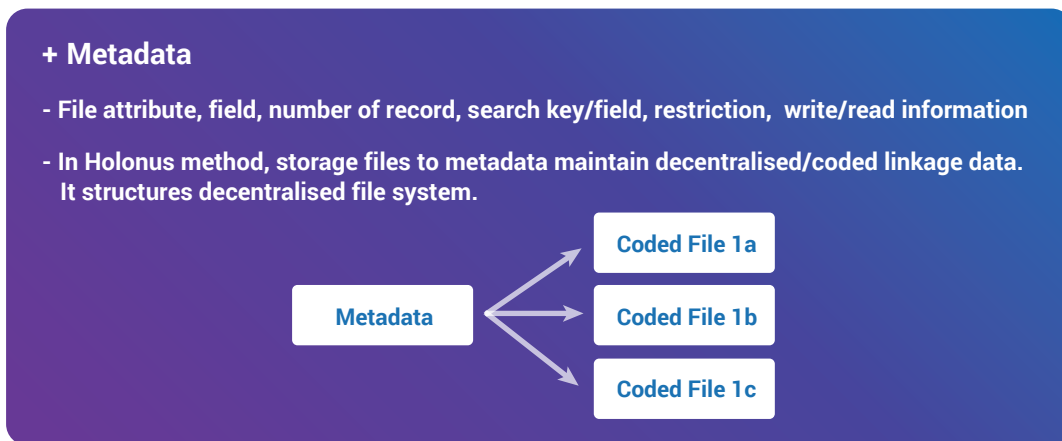
Blockchain Overview

Holonus Network is a classic block architecture with a cloud distributed network of nodes and the transfer of blocks with information. The Holonus network consists of numerous nodes owned by owners of DApps network members. The node is required to create the application on Holonus, and the creation of the block is performed by the node belonging to the owner of DApps.

Blockchain File Storage Method



Multiple Metadata Files in 1 Block



A distinctive feature of the Holonus network from existing blockchain platforms is the method of transmitting the information. Instead of storing and transferring full-size files to the network, the Holonus network transmits encrypted metadata that is shared and transmitted through different nodes of the Holonus network.

This method allows you to provide very high security of the transmitted data - whether it is general information or transactions of digital assets.

The data in any format is processed by the blockchain and its encryption guarantees high security during sending, transmission, and final receipt.

The metadata refers to the following content:

- File title
- File creation / updater name
- File creation / update date
- Hash data of the file

Holonus uses RSA as the metadata encryption method used in the blockchain network, and the application owner or application user can create a private key and a public key and register the public key in the application for transactions. Data is encrypted with a private key, shared, and then written to a distributed file system of blockchain. When viewing data, you can extract shared data from a distributed file system and decrypt it using a public key for viewing as source data.

The **RSA algorithm** is most popular in current blockchain systems and we used it because it is safe and secure for our users due to the use of complex mathematics, the algorithm is difficult to crack because it involves the factorization of primes that are difficult to factorize. And of course, the RSA algorithm uses a public key to encrypt data, and the key is known to everyone, so the public key is easy to distribute, which is very important when transferring any transactions, especially digital assets.

Regarding the principle of dividing metadata into different nodes in the Holonus network, files are stored in several distributed file systems similar to IPFS (customized IPFS).

The **InterPlanetary File System (IPFS)** is a protocol and peer-to-peer network for storing and sharing data in a distributed file system. IPFS uses content-addressing to uniquely identify each file in a global namespace connecting all computing devices. IPFS allows users to not only receive but host content, in a similar manner to BitTorrent. As opposed to a centrally located server, IPFS is built around a decentralized system of user-operators who hold a portion of the overall data, creating a resilient system of file storage and sharing. Any user in the network can serve a file by its content address, and other peers in the network can find and request that content from any node who has it using a distributed hash table.

This system of dividing metadata allows you to save data without loss, speed up the time of their transmission, and give high security during transmission and reception.

"PoAP: Proof of Application" Consensus algorithm

The owner of the distributed application who builds the distributed application on the Holonus platform sets up transaction processing nodes and has the right to create blocks.

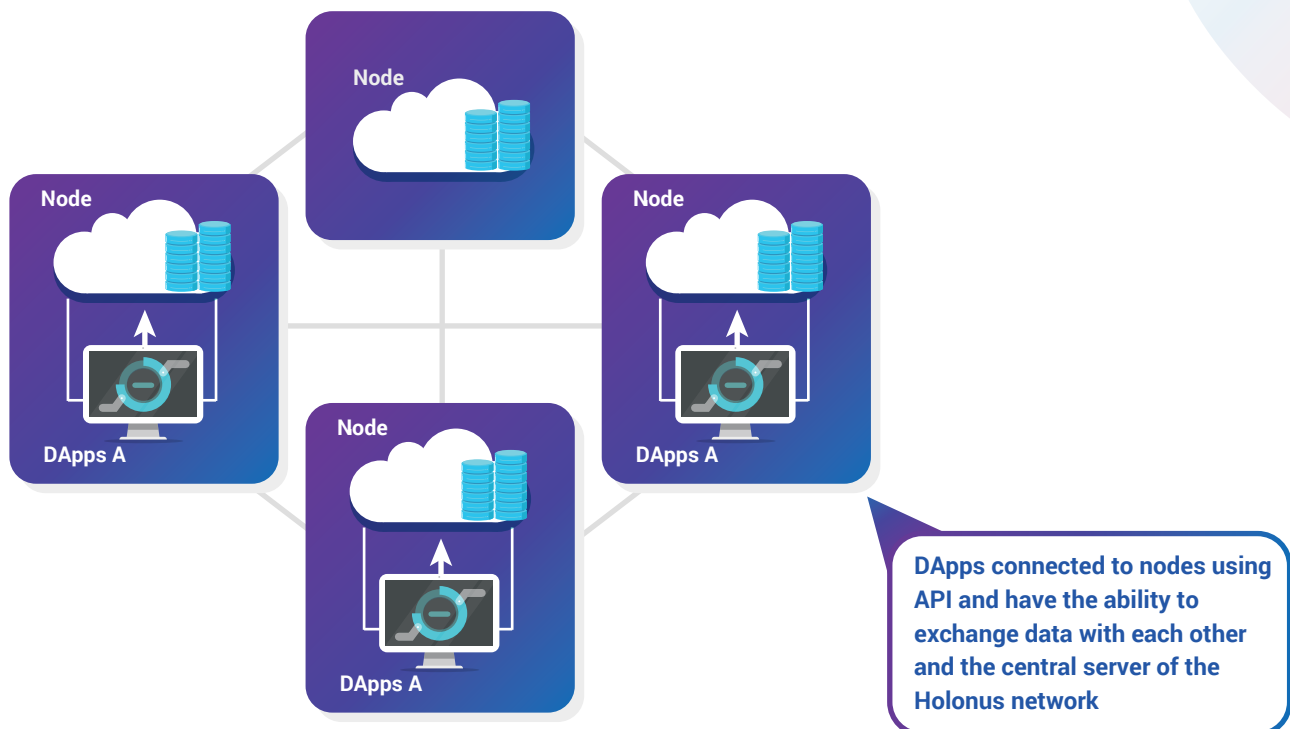
This is a method that is very similar to the "PoA" (Proof of Authority) algorithm used in recent enterprise blockchains.

In the case of PoA, the node that has the right to create the block is determined in advance, but in the case of PoAP, the owner of the distributed application owns the node that has the right to create the block.

PoA is mainly used for private blockchains and consortium blockchains, but in the case of the Holonus blockchain, you can create an infinite number of distributed applications on the blockchain network. As a result, the system where the owners of the applications are located, whose interests do not coincide, while they own the network nodes, can also be classified as a public blockchain.

In addition, since the number of transactions differs for each distributed application, to eliminate this, a transaction filter is set up as a process, and an application with a smaller number of transactions takes precedence to simplify record data to the block.

DApps interaction in Holonus Network



Measures for scalability problems

Even for distributed applications with a small number of transactions, we are building a side chain for each distributed application to ensure that data is recorded in the Holonus blockchain. The timing of sending data from the side chain built-in each distributed application to the main chain of the Holonus blockchain is performed at a uniform interval for all nodes.

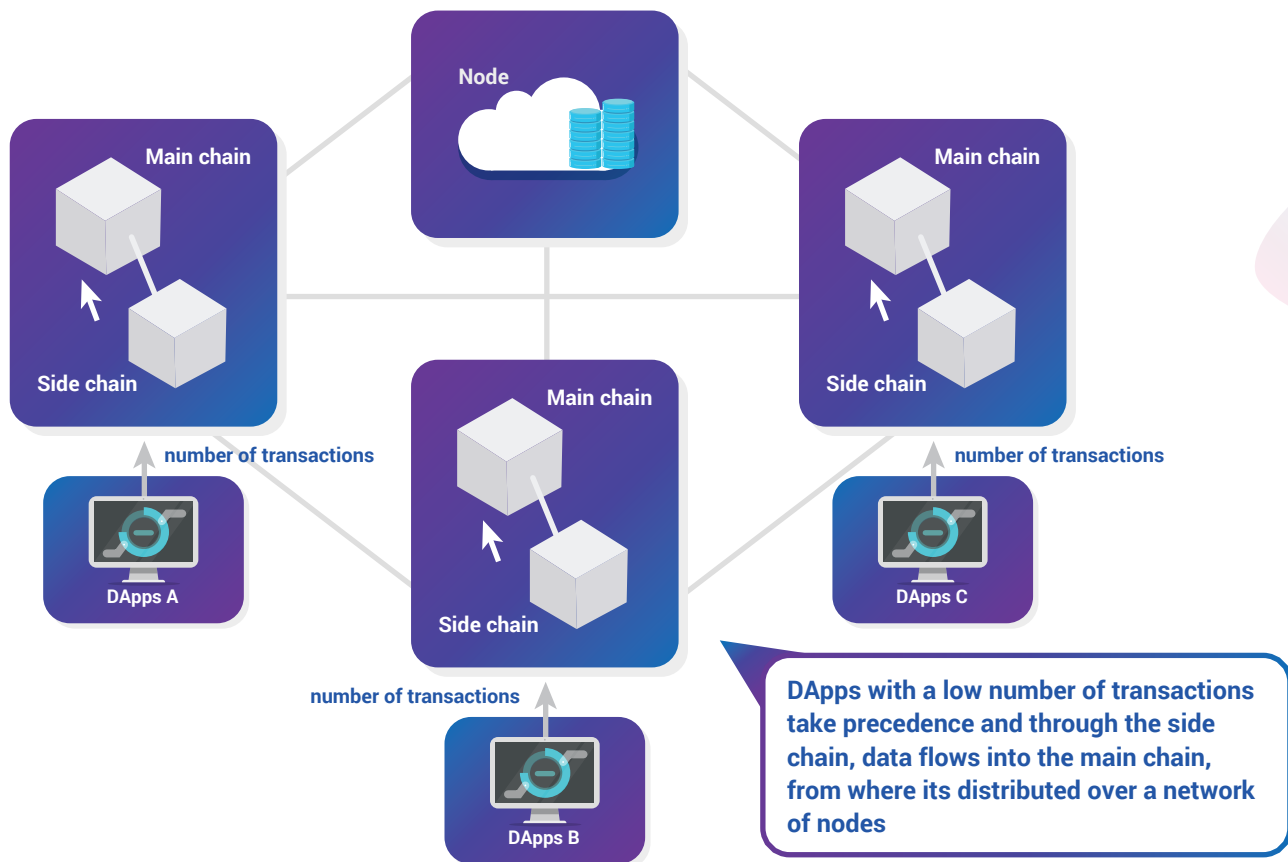
The existence of this side chain makes the system unaware of the difference in the number of transactions between distributed applications.

In other words, a distributed application with a large number of transactions records multiple transactions at the time of the side chain and sends them to the main chain, but a distributed application with a small number of transactions has a small number of transactions (or empty) in the side chain.

As a result, while satisfying the requirements of distributed applications with a large number of transactions, even distributed applications with a small number of transactions can be recorded in the Holonus blockchain without lowering the priority.

This means that applications that appear to have fewer transactions have higher priority.

Holonus Network Transaction Movement



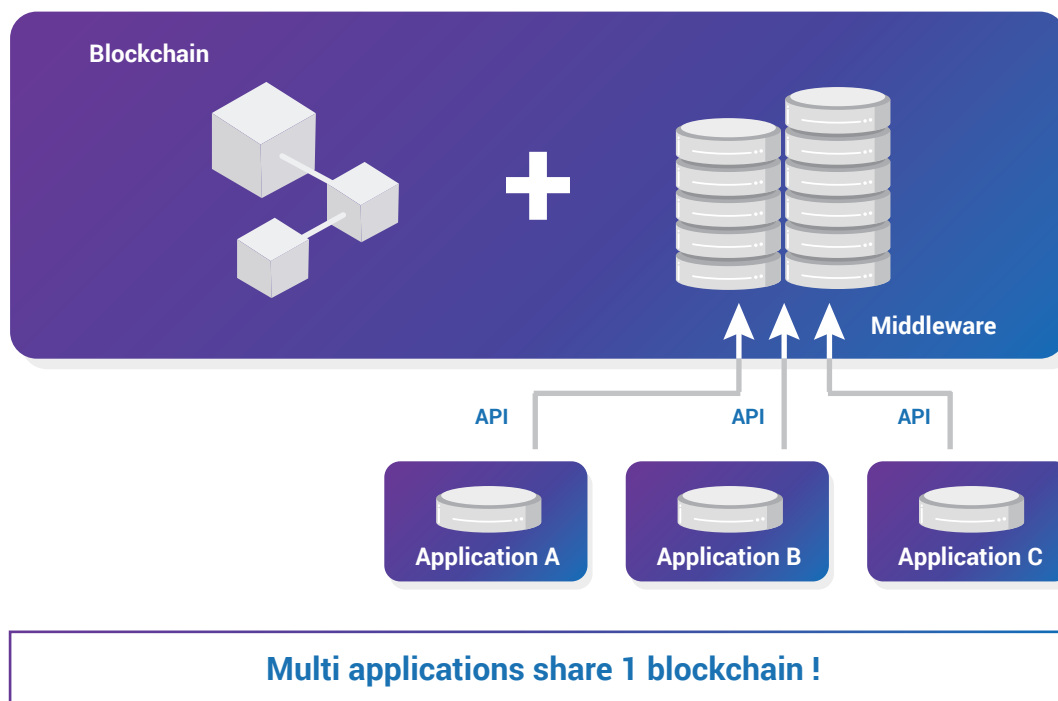
Multi DApps platform

Unlike the existing in the world, blockchain platforms, the Holonus network allows various applications to share and work on the same blockchain.

This system is made possible by middleware based on Holonus' s own smart contract. The Holonus blockchain is shared among several distributed applications through an API, and the distributed application interacts with its users or with other applications.

At the same time, transactions and data between all distributed applications are completely isolated and protected. There is no way to mix or replace them since each application has its own network node, which communicates with the Holonus network using the API.

Holonus Multi DApps Platform



Data in blockchain cannot be accessed from other applications

Compatibility with the platform through the API provides an easy connection to the system and interaction with the Holonus blockchain - there is no need to develop special software for using the blockchain.

The blockchain is multi-purpose, the implementation on this platform ensures the efficient use of resources since each participant using this network can install a node, which significantly affects the speed of the processes inside the network.

The distributed application built on this Holonus blockchain prepares its own node that the owner needs for each distributed application, so that the more nodes the application has, the

more its own node can be maintained. In addition, there is no transaction fee, and in order to guarantee transactions sent from distributed applications, the node prepared by the application owner is the consensus responsible for block generation.

The blockchain platform is used by all network participants, however, data cannot be accessed from other distributed applications.

Each application is separate and does not intersect with the rest of it is not laid down in the system of the application itself when it interacts with one or more applications that are members of the Holonus network.

As a result, there is the possibility of both the autonomous operation of one application and its interaction with end customers and the creation of complex application systems that interact with each other.

Decentralized File System

The main principle of the blockchain is decentralized data storage, which ensures uninterrupted and safe data transfer within the network.

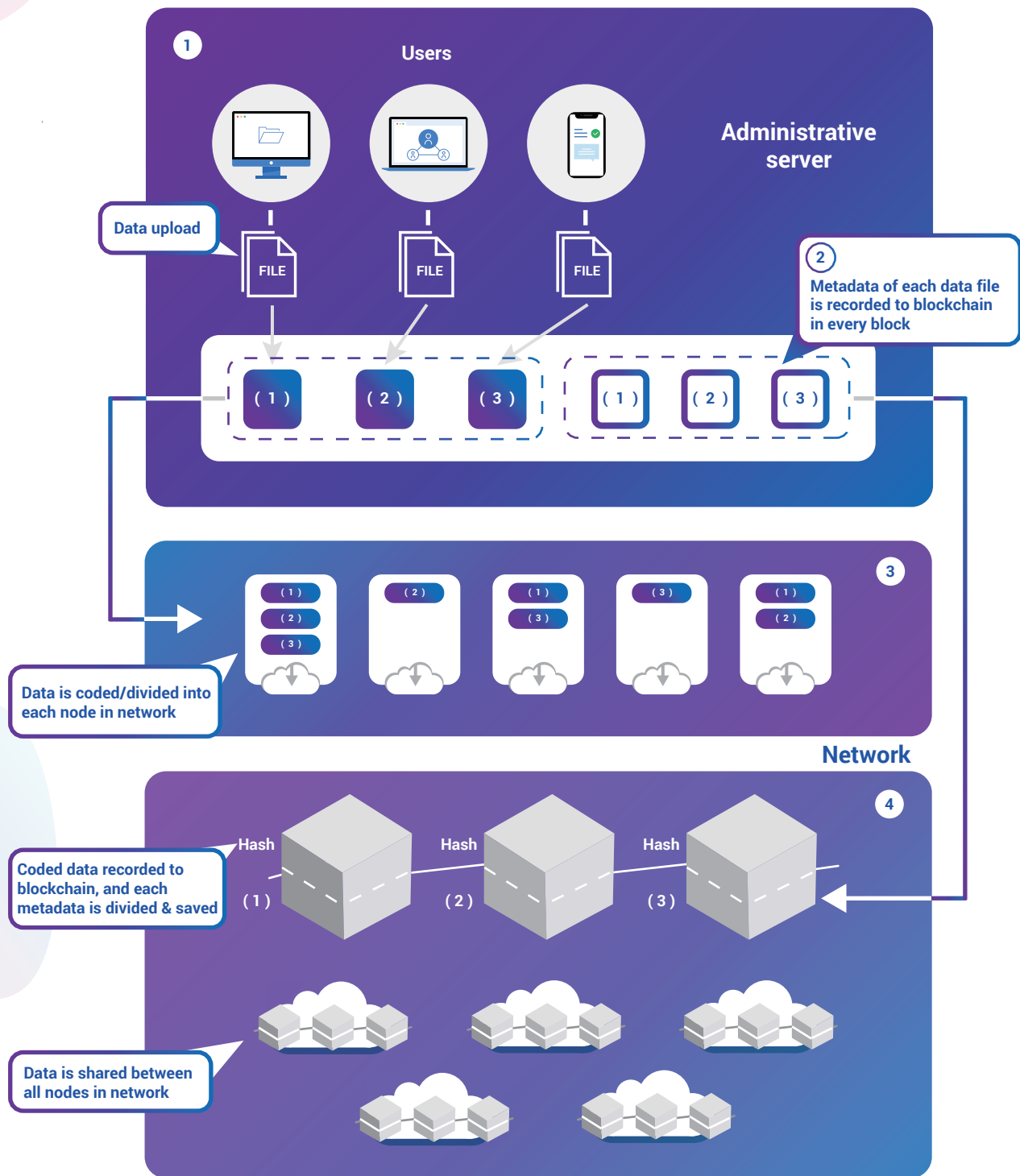
Holonus Network has features that allow the network to be universal when used in complex economic systems requiring high data security.

In the nodes of the network, there is a complete encoding and separation into parts of the stored data. As coded & divided data becomes kB units you can use node capacity efficiently.

At the same time, in the blockchain, each transaction records with metadata of the transmitted information. When the node is hacked, hackers only receive part of the metadata with encrypted information, which cannot be decrypted, as well as to find further use for it. This is urgently needed and applicable to transactions of digital assets and other financial information, which is now stored openly in many blockchain systems and is used by hackers.

Access to files requires a secret private key that provides complete protection against data leakage.

Holonus Blockchain Decentralised File System



Holonus blockchain uses the RSA method to generate public and private keys. The RSA advantages - the algorithm is safe and secure for its users through the use of complex mathematics. RSA algorithm is hard to crack since it involves the factorization of prime numbers which are difficult to factorize. Moreover, the RSA algorithm uses the public key to encrypt data and the key is known to everyone, therefore, it is easy to share the public key.

Modern blockchain systems are very loaded with data as of full data transmission. In Holonus Network, metadata transfer is used, so a very large amount of metadata can be placed in one block.

The metadata itself is not constant, and the transaction area size of one block is about 33 kB, and if calculated from that, a maximum of 3,000 transactions can be stored per block.

The Holonus blockchain processes a large amount of metadata in 1 block, thereby the entire blockchain and storage are processed at an increased speed.

When using mining in an application, blockchain users reduce the speed of block generation several times compared to Ethereum.

The block generation time of the first edition Holonus blockchain is about 5 seconds/block.

High system performance makes blockchain management cheap and significantly reduces costs. The low cost of use makes it possible to use the Holonus network in completely different categories from ordinary individuals to large companies and millions of transactions per day. The data written to the block is supported by all nodes in the blockchain, even if in some nodes the data is falsified, other nodes contain the correct data. As a result, data transfer is uninterrupted and data is duplicated in other nodes. This feature of the Holonus Network is unique.

4. Industry Problems and Solutions by Holonus Network

Now the world is faced with the main problems of the modern economic system, which are reflected in low trust in highly centralized systems and the high monopoly of large enterprises, which impedes the development of small and medium-sized companies, as well as individuals.

The Holonus network seeks to introduce into the development market of private enterprises, small and medium enterprises an element of free business development around the world. Thanks to decentralized blockchain technologies, we want to simplify the creation of online businesses as much as possible and create an accessible environment for developers, business owners - DApps, and their end-users.

Currently, the main highly centralized players in this market are the App Store and Google Play. These are private marketplaces owned by giant companies that act strictly in the interests of these giant companies and have one goal - to continue the monopoly in this market and dictate for users' own policy.

We intend to offer a more efficient decentralized and free platform for hosting DApps and developing businesses around the world.

There are many advantages to using the Holonus blockchain network compared to other traditional technologies:

- With blockchain, your business process will be better protected with the help of a high level of security
- The hacking threats against your business will also be reduced to a greater extent.
- As blockchain offers a decentralized platform, there is no need to pay for centralized entities or intermediaries' services.
- Enterprise blockchain technology enables organizations to use different levels of accessibility.
- Organizations can do faster transactions with the help of blockchain.
- Account reconciliation can be automated.
- The transactions done are transparent and hence, easy to track.

Greater transparency

Transaction history is becoming more transparent through the use of blockchain technology. Since blockchain is a type of distributed ledger, all network members use the same documentation, not separate copies. This general version can only be updated by consensus,

which means everyone must agree to it. Changing one transaction record will require changing all subsequent records and conspiring the entire network. Thus, the data on the blockchain is more accurate, consistent, and transparent than when it is pushed through paper or even other electronic processes. It is also available to all members who are allowed access.

In the Holonus network, data management is carried out by the network users themselves, who own data transfer nodes. They have the ability to send data, receive it, and simply process blocks with information from other users. The whole process has absolute transparency and the entire history of transactions and transmitted data automatically remains online without the possibility of change.

Enhanced security

Information is stored on a network of computers, and not on a single server, which makes it very difficult for hackers to crack transaction data.

Also, in the Holonus network, data is hashed before sending and is compressed metadata, which makes it almost impossible to decrypt it, and even if attackers take possession of the data, it will be encrypted with the private key of its sender. Only the recipient can decrypt them with his private key.

In any industry where the protection of confidential data is critical - financial services, government, healthcare - the blockchain has the ability to really change the way critical information is exchanged, helping to prevent fraud and unauthorized activity.

Improved traceability

If a company deals with products that are traded through a complex supply chain, you know how difficult it is to track an item to its origin. When the exchange of goods is recorded on the blockchain, you receive an audit trail that shows where the asset came from and its every stopover. These historical transaction data can help verify the authenticity of assets and prevent fraud.

The Holonus network allows to record any data, including product data from any store or production at a very high speed. Users can have transparent network data and use it for reports and control the enterprise.

Increased efficiency and speed

When traditional, labor-intensive processes are used, trading is a lengthy process that is prone to human error and often requires third-party mediation. By optimizing and automating these processes using the blockchain, transactions can be completed faster and more efficiently.

Since the recording is carried out using a single digital register, which is used by the participants, you do not need to coordinate several registers, and as a result, less interference is obtained. And when everyone has access to the same information, it becomes easier to trust each other without the need for numerous intermediaries.

Due to the transmission of compressed metadata, the Holonus network has a speed of 5 seconds/block. This allows you to exchange data very quickly, especially when transferring digital assets when there are fluctuating exchange rates of coins and coins on the market. Thus, clearing and settlement can be much faster.

Reduced costs

For most enterprises, cost reduction is a priority. With the Holonus blockchain, you do not need so many third parties or intermediaries to give guarantees, because it does not matter if you can trust your trading partner. Instead, you just need to trust the data on the blockchain. You will also not need to look at so much documentation to complete the transaction, because everyone will have access to one unchanged version.

Since the system is unchanged and its work is provided by the users themselves, there is no reason not to trust this network, because it is highly automated and does not have a main body that would control everything and the possibility of changing the network working conditions is small.

The Holos network has all of the above features and solves very significant problems in the DApps industry and the industry behind it for any business that is engaged in online activities. The principles of Decentralised Autonomous Organisation allow the network to have the highest trust in the market, and its availability and ease of use will encourage many existing companies to create DApps to conduct business on the Holonus platform. And of course, the platform will provide an influx of individuals and small businesses to work in this market.

5. Project Tokenomics Explanation

【Premise】

The user (individual) and DApps owner are different.

Validators are not prioritized to issue coins.

Validators reduce the number of coins issued to DApps, which often generate blocks.

An algorithm that allows coexistence with several DApps.

By default, the validator is the default value. As you move, it will be automatically adjusted from the block generation frequency.

The Holonus Network team produces a ready-to-use product, the development of which has been made entirely at their expense. Holonus company does not use any financial schemes that involve obligations to users (ICO with guaranteed income, PreSell, pre ICO, etc.).

Initially, the team owns 100% of the project share, but for the successful promotion and improvement of the product, the following distribution of the shares of coins issued is planned:

Total Volume : 10,000,000,000 Holon (provisional)

6. Holonus Network Perspectives

In the future, decentralized applications will handle many aspects of everyday life, cutting costs, and eliminating third parties. These inventions will enable peer-to-peer interaction and exclude monopolistic suppliers of goods and services.

This is due to the fact that even more DAOs will appear on the market and confidence in them will increase exponentially, as will the number of users.

Because people and companies will see the obvious benefits and capabilities of decentralized systems over legacy centralized systems and platforms.

Each year, there are more and more decentralized platforms and DApps that appear on them, and, in 2020, we should expect more applications to be released, which will increase resistance to web censorship, restrictions within one country, and a group of countries. These innovations in the blockchain do not have static IP addresses, so they are not easy to block. Of course, locks are useful for preventing criminal acts, but they are also used to pursue personal commercial interests in order to eliminate competitors.

The Holonus network enters this market as a game-changer that gives equal rights for any business and company to work freely within one country or around the world.

In addition, higher-quality applications will be created to improve user experience and convenient navigation features.

The current world situation during the period of the coronavirus pandemic and the general global isolation of all people proves that old systems are not able to cope with the realities of the development of people and businesses.

Absolutely the whole business has shifted to the online sector. Existing sites are not sufficiently developed to ensure ease of business migration and to ensure convenient use of systems by both entrepreneurs and their customers.

DAO in the form of the Holonus network is the optimal solution to all the main problems existing in the market:

1. Ease of creating applications through the use of API
2. Low costs and costs of using the network and the creation of the DApps itself
3. A high degree of trust due to decentralization and automation of the system without the intervention of third parties.
4. Free operations within the network without barriers and unreasonable barriers.

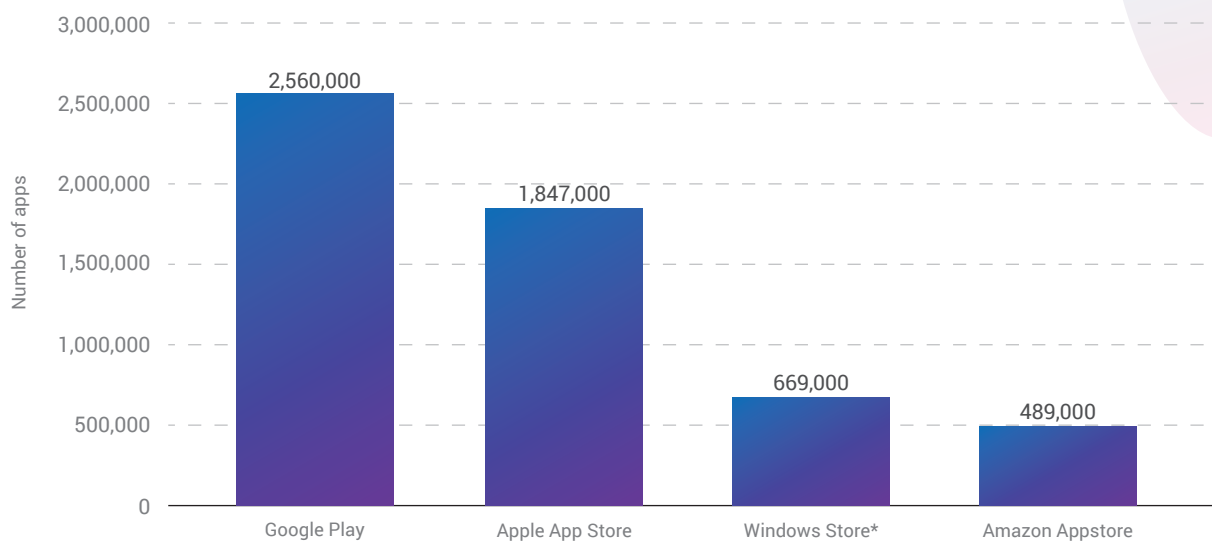
These are just a few of the advantages that the Holonus network provides for users and makes the use of the platform a dozen years ahead.

While it is true that most DApps had a lackluster performance in previous years, the DeFi sector has been the shining glory, thrusting DApps into the limelight for all the good reasons. The success of DeFi is the reason why critics cannot easily sweep these inventions' achievements under the carpet.

This new financial ecosystem devoid of third parties runs on trusted, immutable, and distributed networks that allow anyone, anywhere in the world to access a wide range of financial products. People can, for instance, access lending, payments, investing, portfolio management, or borrowing services with fewer barriers and more autonomy than what the traditional finance sector has to offer.

DeFi apps are blockchain-powered solutions that eliminate the need for financial intermediaries. These applications are part of the DApps system, meaning that a single authority cannot control them. Using smart contracts-- irreversible agreements can be forged between two parties, a transparent, new age and resilient financial system is being built. It, therefore, does not come as a surprise that the DeFi protocols are proliferating the DApps market. They are so popular with users and investors alike that over \$660 million is locked. This is clear proof that DeFi apps have a use case in the world's financial system, and the world has yet to enjoy the many benefits of DApps.

The release of the DeFix index (DEFX) by Nasdaq, and the entry of decentralized finance (DeFi) assets into the mainstream has pushed them into the limelight. The New York-based stock exchange firm, in partnership with EXANTE, a brokerage firm based in London, is now streaming real-time data of these promising blockchain projects.



Number of apps available in leading app stores as of 1st quarter 2020

Centralized Platforms with classic applications such as App Store, Google Play, Windows Store, and Amazon Appstore together have more than 5,500 thousand applications as of Q1 2020.

The Holonus team expects that by 2023 the migration of such applications to the DAO will be about 20% and that the Holonus network has prospects to occupy 15% of the market share due to innovation and ease of migration to the Holonus platform.

Conclusion

Forecasts for the growth of the DeFi space and all DApps in 2020-22, inter alia, are associated with the diversification of a stable coin sector. Stablecoins perfectly facilitate cross-border trade and therefore are gaining mass distribution around the world. Exchange tokens will continue to strengthen as more and more traders accept them. The DAO development environment will further accelerate the pace of DeFi innovation, and more and more large players will take advantage of the platform's cost-saving, disintermediation, and operational efficiencies.

In 2020, the whole DApp industry continued to thrive and evolve. 1,955 new DApps were added to DappReview, making the total number of DApps over 4,000. The total value of on-chain transactions reached 23 billion USD.

The Holonus team expects that by 2023 the migration of centralized applications to the DAO will be about 20%. Migration of the DApps from other decentralized platforms to the Holonus network will be 15% and that the Holonus network has prospects to occupy an estimated 15% of the market share due to innovation and ease of migration to the Holonus platform.

Resources

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