TECHCOIN

THE FUTURE OF CRYPTOCURRENCY

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CRYPTOCURRENCY

WHITEPAPER V2.0

TECHCOIN

THE FUTURE OF CRYPTOCURRENCY

VISION

To develop a unified blockchain platform with a complete ecosystem for the masses, which will eventually become a one-stop solution for all financial services including trading and exchange, payment solutions, and merchant solutions.

Fully Featured Cryptocurrency Wallet

TechCoin includes a multicurrency wallet that stores both private and public keys and interacts with various other blockchains. The wallet is available as a web application, a mobile app supporting both Android and iOS and a Windows desktop app, which makes it accessible from almost any device.

Fast and Secure Payment Solution

A payment solution is an essential part of any crypto software, and TechCoin has built one that enables sending of funds seamlessly from across the world. TechCoin's blockchain technology allows merchants to use this facility as a payment gateway for various e-commerce transactions with almost zero fees.

Cashless Payment Platform with a Debit Card

TechCoin features a cashless payment platform with a debit card linked to its wallet, which allows worldwide cashless transactions without charges. The debit card supports both cryptocurrencies and flat currencies with automatic conversion.

Support for both B2B and B2C

Whether a user is dealing with another business or a direct client or consumer, TechCoin is a great business solution. It is built with both B2B and B2C users in mind, making sure that each business is given the platform to improve its efficiency and profitability.

TechCoin overview

TechCoin is a new cryptocurrency with its own custom blockchain protocol. It features many integrated components including an exchange, a wallet, and a payment solution, which makes it a complete and sustainable cryptocurrency ecosystem closely connected with the fiat currency world. The TechCoin ecosystem offers many advantages over the existing solutions in terms of scalability, speed, security, performance, and additional useful features.

Topnotch Scalability

The TechCoin blockchain is designed to enable significantly higher processing speeds compared to many existing blockchain protocols. The protocol can perform around 10,000 transactions per second, which makes it one of the most scalable protocols available on the market.

Utmost Speed

TechCoin runs on a technology that takes mere five seconds to generate a block on average. This is definitely a much faster rate than other popular blockchain protocols such as Bitcoin and Ethereum.

Secure Smart Contacts

Custom smart contacts can be coded and deployed using the TechCoin's blockchain technology. It is designed to provide a secure yet user-friendly environment for smart contact setup and implementation.

High-Performance Exchange

TechCoin's exchange platform is built based on the state of the art ultra-low latency aggregation, smart order routing and reporting engine that is capable of sub-millisecond order processing. It supports many cryptocurrencies as well as fiat currencies.

AI-Powered Technology

Artificial Intelligence (AI) is not a new concept to the crypto industry, as such machine learning algorithms have been incorporated into several forex and crypto trading software for a long time. This AI-powered technology is seamlessly consolidated in TechCoin's ecosystem, especially on its trading platform, which provides various AI-based signals for traders and investors.

ABSTRACT

TechCoin is an advanced blockchain platform that aims to shape the future of cryptocurrency. A complete ecosystem is built around the program, including an exchange, a secure wallet, a marketplace, and a payment solution.

The team behind TechCoin has been involved in the development of hundreds of different successful blockchain frameworks in the cryptocurrency industry. Aiming to build a stronger and more sustainable crypto platform, its team of award-winning developers has established a promising breakthrough with TechCoin, addressing the major flaws and apprehension in already existing blockchain systems.

The crypto space is a rapidly expanding industry and it is expected to do so continuously in the future. Currently, there are over 1,300 cryptocurrencies on the market and enhancements are being constantly added, such as new exchanges, wallets, and payment solutions with the hopes of improving their functionality. However, many existing systems and solutions are flawed and run on unstable formula, which makes them prone to manipulation and debacle.

With TechCoin's cutting-edge innovation, it targets to overcome these common limitations, aiming to provide a system that is scalable, faster, and user-friendly. Its one-of-a-kind blockchain protocol, alongside with an integrated ecosystem that features the co-existing and sustainable components of the system, is designed to take the crypto space to the next level.

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WHY BLOCKCHAIN

With the many inherent advantages of the blockchain, TechCoin uses the technology as the basis of its solution. Here's why blockchain technology is the best choice for running a project as extensive as TechCoin.

- ⊙ **IMMUTABILITY.** Nothing on the blockchain can be changed without the consensus of the network. Any confirmed transactions on the blockchain cannot be changed.

- ⊙ **PERMANENCE.** What happens on the blockchain stays on the blockchain. A public blockchain acts as a public ledger, meaning that as long as it remains operative, the data on it will be accessible.

- ⊙ **REMOVAL OF INTERMEDIARIES.** The P2P nature of the blockchain does away with the need for intermediaries and allows users to interact directly with one another. Without these "middlemen", the distributed ledger is updated real-time by the miners, which ensures that any data inputted on the blockchain is transmitted and stored automatically.

- ⊙ **DECENTRALIZATION OF CONSENSUS.** With no central authority acting as a clearinghouse for transaction validation, the effort required to reach consensus is shared among the miners.

- ⊙ **TRANSPARENCY AND PSEUDONYMITY.** Public blockchains can offer full transparency of the transactions carried out on the network while safeguarding the privacy of its users through pseudonymity. Blockchain only shows transacting addresses and none of the user's personal and confidential details.

- ⊙ **SPEED.** Blockchain results in a much faster process than a centrally controlled ledger.

- ⊙ **LOWER COSTS.** The removal of intermediaries results in lower overall transaction costs.

- ⊙ **SECURITY.** With the encryption through cryptography, no one other than the sender and recipient can access the data sent across the blockchain.

https://bitmalta.com/transactions/
Miner is a participant in the blockchain who provides computing power for transactions to be verified and added to the public ledger.
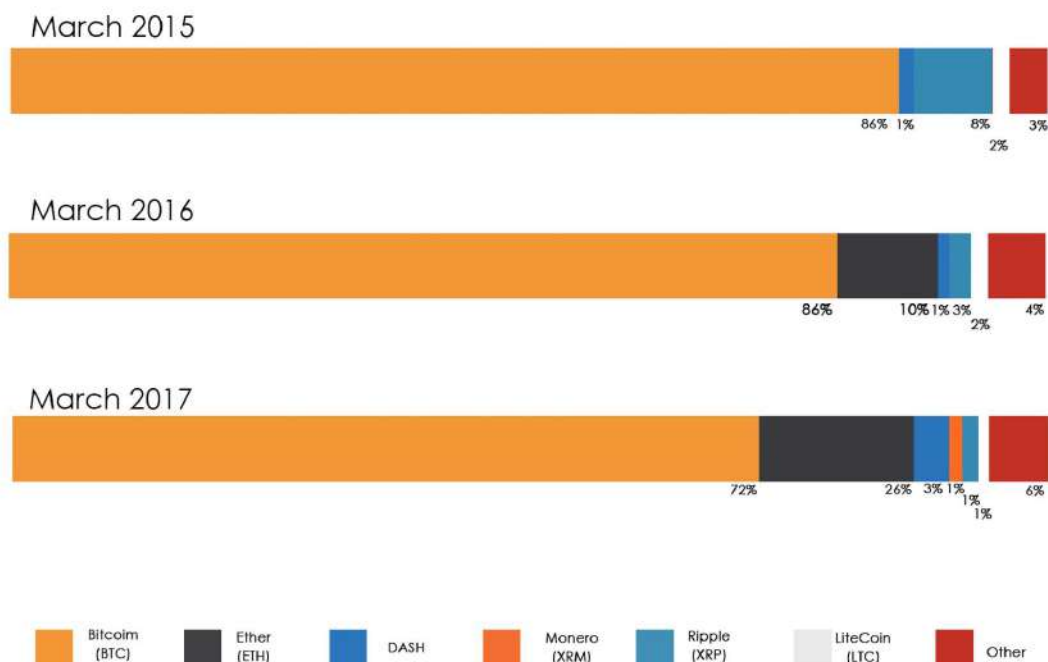
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MARKET ANALYSIS

Cryptocurrency market

The cryptocurrency market at present consists of more than 1,300 different digital currencies and has a market capitalization of more than $300 billion as of November 2017, and this number is rapidly increasing by the day.

Although Bitcoin remains to be the dominant cryptocurrency in terms of market capitalization, others are increasingly cutting into Bitcoin's historically dominant market cap share. For instance, Bitcoin's market capitalization accounted for 86% of the total cryptocurrency market in March 2015 and it dropped to 72% two years later. Ether (ETH), the native cryptocurrency of the Ethereum network, has established itself as the second largest cryptocurrency. The rest of the cryptocurrencies, also known as altcoins, has doubled its share of the total market capitalization from 3% in 2015 to 6% in 2017. Privacy-focused cryptocurrencies, such as DASG and Monero, (XMR) have become increasingly popular and currently constitute a combined 4% of the total crypto market capitalization.

% of total Crytocurrency market capitalisation

March 2015

86% 1% 8% 2% 3%

March 2016

86% 10% 1% 3% 2% 4%

March 2017

72% 26% 3% 1% 1% 1% 6%

| Bitcoin (BTC) | Ether (ETH) | DASH | Monero (XRM) | Ripple (XRP) | LiteCoin (LTC) | Other |

Data sourced from coinmarketcap.com

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EXCHANGES

Exchanges provide services to buy and sell cryptocurrencies and other digital assets for fiat currencies and other cryptocurrencies. Exchanges play an essential role in the cryptocurrency economy by offering a marketplace for trading, liquidity, and price discovery. Although there are hundreds of companies providing cryptocurrency exchange services, fewer than a dozen exchanges dominate Bitcoin trading.

Bitcoin Trading volume market share of major exchanges

Average market share (february - March 2017)

Data sourced from Bitcoinity[2]
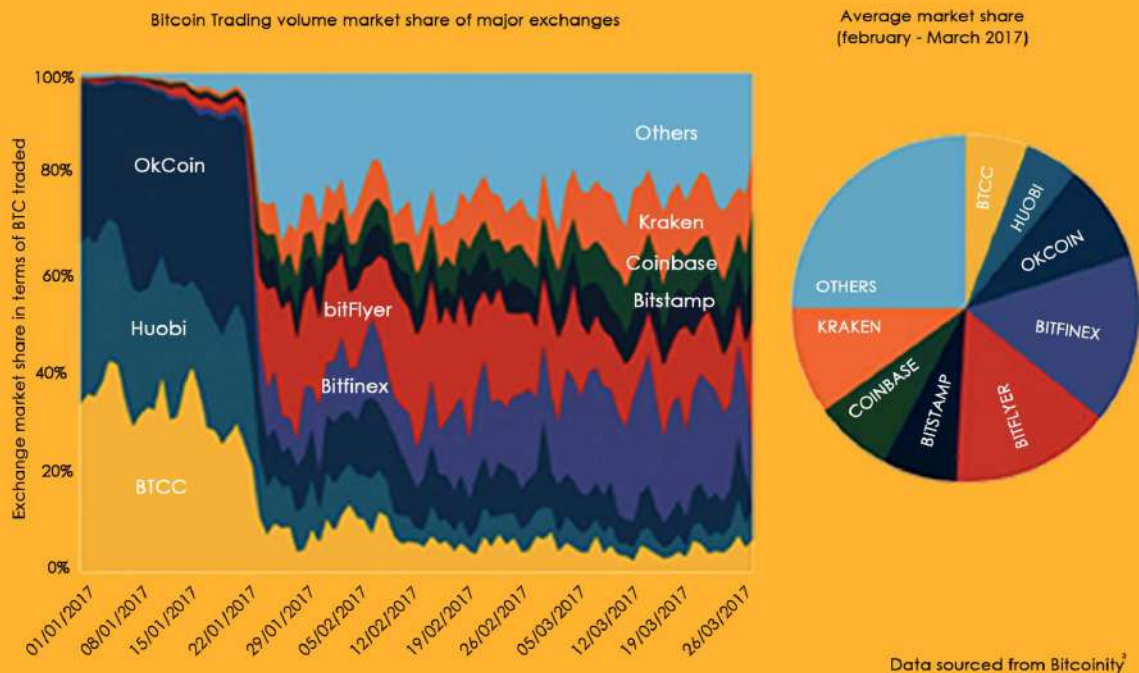
The Global Cryptocurrency Benchmarking Study in 2017 has further found the following facts with regards to exchanges:

- ⊙ The exchanges sector has the highest number of operating entities and employs more people than any other crypto industry sector. Also, a significant geographical dispersion of exchanges is observed.

- ⊙ About 52% of small exchanges hold a formal government license compared to only 35% of large exchanges.

- ⊙ On average, security headcount corresponds to 13% of total employees and 17% of the budget is spent on security.

- ⊙ Bitcoin is the most widely supported cryptocurrency among the exchanges, wallets, and payment companies.
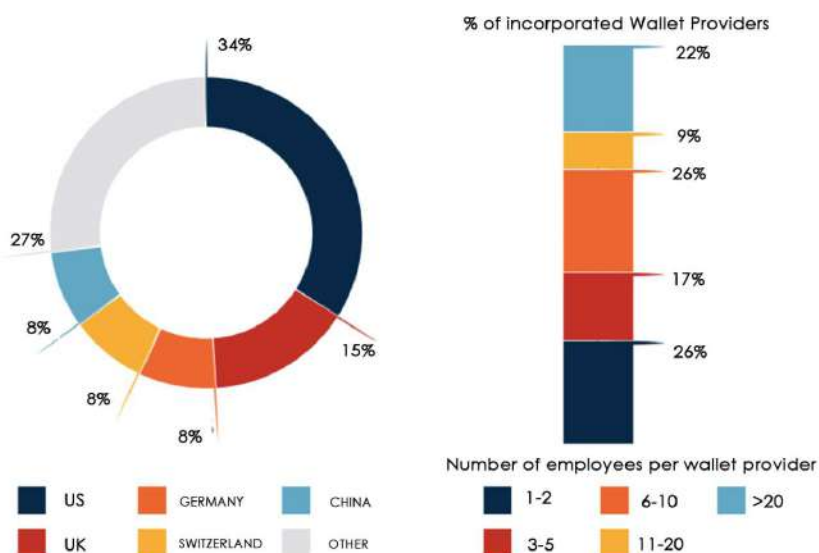
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WALLETS

It is estimated that the total number of wallets has increased more than 4 times from 8.2 million in 2013 to nearly 35 million in 2016. However, only about 7.5% to 30.9% of this number is considered an active wallet.

The same study conducted in 2017 found the following facts about wallets:

- ⊙ The lines between wallets and exchanges are increasingly blurred, as 52% of wallets provide an integrated currency exchange feature, of which 80% offer fiat to cryptocurrency exchange services.

- ⊙ About 81% of wallet providers are based in North America and Europe, but only 61% of wallet users are based in these two regions.

- ⊙ Almost 73% of wallets do not control private keys, which means that they do not have access to the users' funds. On the other hand, 12% of wallets let the users decide whether to have sole control over private keys.

- ⊙ According to the study, 39% of wallets already offer multi-cryptocurrency support, while the rest do not. Surprisingly, nearly 1/3 of those wallets without the multi-cryptocurrency support have the feature on their roadmap.

- ⊙ The average IT security headcount for wallet providers amounts to 37% of the total number of employees, and the average IT security cost constitutes about 35% of the total budget.

Figure: Wallet providers by location

% of incorporated Wallet Providers

Donut chart: US 34%, UK 15%, Germany 8%, Switzerland 8%, China 8%, Other 27%

Legend (donut): US, UK, Germany, Switzerland, China, Other

Bar chart (Number of employees per wallet provider): 1-2 = 26%, 3-5 = 17%, 6-10 = 26%, 11-20 = 9%, >20 = 22%

Legend (bar): 1-2, 3-5, 6-10, 11-20, >20

Source: Source: Global Cryptocurrency Benchmarking Study in 2017

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PAYMENT SOLUTIONS

The use of cryptocurrencies by payment service providers can be grouped into two broad categories:

(A) Payment rail, which is the use of cryptocurrencies as a channel for fast and cost-effective transfer for fiat currencies. It mainly involves cross-border and international payments but also allows intra-country transactions.

(B) Cryptocurrency payment, which provides services to facilitate the use of cryptocurrencies for service providers from category (A). Cryptocurrency is not the primary focus of the transaction but rather a means to an end since transfers are generally denominated in fiat currencies and users are not necessarily aware that a crypto system is being used on the backend. The process, therefore, is fiat currency-focused, which is what is meant when Bitcoin and other cryptocurrencies are described as a 'payment' rail.

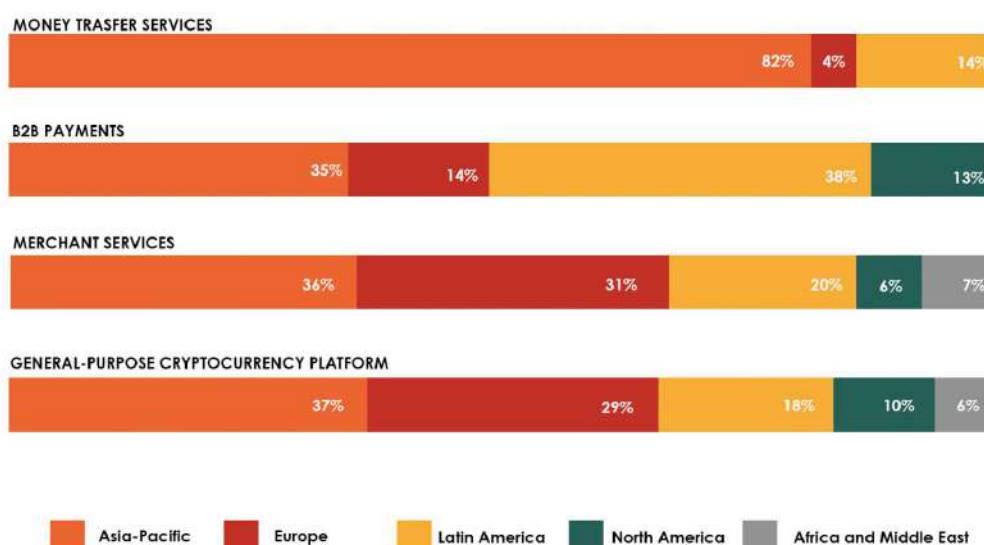Figure: Geographic dispersion of payment companies
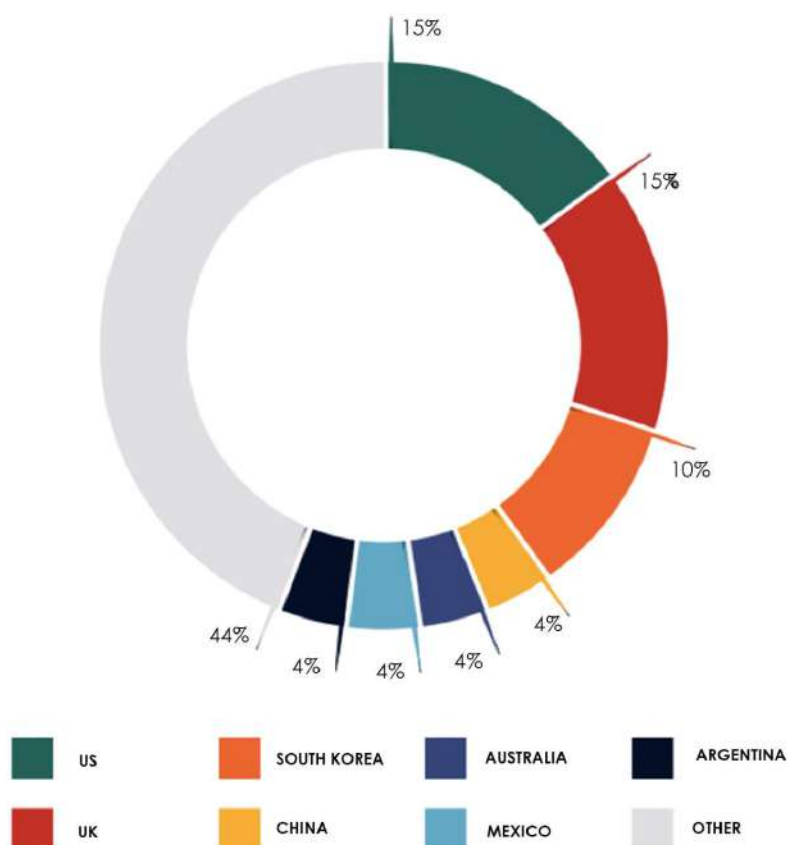
Source: Global Cryptocurrency Benchmarking Study in 2017

The Global Cryptocurrency Benchmarking Study in 2017 has found the following information about payment solutions:

- Nearly two-thirds of payment companies are specializing in a single payment activity (e.g., B2B payments), while 8% are engaged in 3 activities of more.

- Merchant services, which mainly consist of processing payments for merchants that accept cryptocurrencies, are the most widely offered payment service, which constitutes to about 52%.

- About 86% of payment companies perform KYC/AML checks. Internally performed checks are usually the preferred method of these companies.

- Cross-border payments generally have a higher transactional value than intra-country payments. About 46% of all payments have a transaction size between $100 and $1,000, and 34% have a transaction size of above $1,000.

- On average, fiat-to-cryptocurrency payments constitute two-thirds of total payment company transaction volume. On the other hand, flat-to-flat currency transfers and cryptocurrency-to-cryptocurrency payments account for 27% and 6%, respectively.

- The Bitcoin network is used by 86% of surveyed payment companies as their main payment rail for cross-border transactions.

MONEY TRASFER SERVICES

| 82% | 4% | 14% |

B2B PAYMENTS

| 35% | 14% | 38% | 13% |

MERCHANT SERVICES

| 36% | 31% | 20% | 6% | 7% |

GENERAL-PURPOSE CRYPTOCURRENCY PLATFORM

| 37% | 29% | 18% | 10% | 6% |

Asia-Pacific · Europe · Latin America · North America · Africa and Middle East

Source: Global Cryptocurrency Benchmarking Study in 2017

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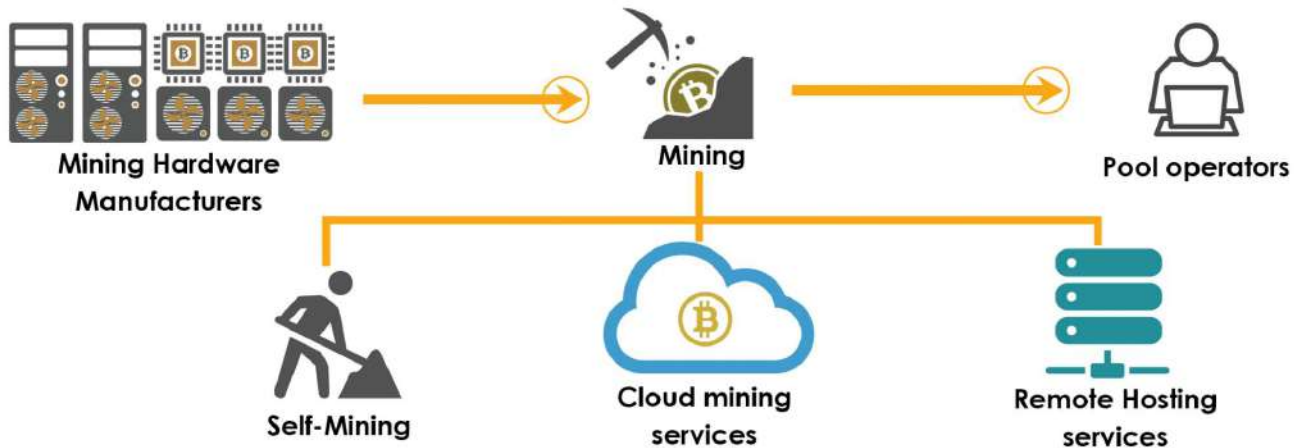THE FUTURE OF CRYPTOCURRENCY

MINING

Miners play a crucial role in any cryptocurrency system, as they are responsible for grouping unconfirmed transactions into new blocks and adding them to the global ledger (which is the "blockchain"). They provide the necessary computing power to secure a blockchain by computing vast numbers of hashes to find a valid block. Each valid block added by a miner to the blockchain generates a reward for the miner and makes it more difficult for an attacker to recognize the ledger and double spend already confirmed transactions.

Figure: The mining industry value chain

Mining Hardware Manufacturers

Mining

Pool operators

Self-Mining

Cloud mining services

Remote Hosting services

A small number of large mining hardware manufacturers supply the industry with the newest and most efficient equipment. Remote hosting and cloud mining services have emerged to offer customers the possibility to participate in the mining process without having to run the equipment themselves. Large mining organizations build and maintain vast mining facilities and data centres all over the world. Individual and corporate miners alike point their hashing powers towards the mining pools of their choice to increase the likelihood and frequency of finding new blocks and 'smooth earnings'. Mining pools have become increasingly professionalized, with some offering customer support phone numbers and additional services to their customers.

Table: Mining pool market shares

Mining pools	Q1 2016	Q2 2016	Q3 2016	Q4 2016
AntPool	26%	26%	21%	23%
F2Pool	25%	26%	23%	20%
BTCC Pool	15%	14%	15%	13%
BitFury	14%	10%	11%	10%
BW.com	7%	11%	16%	13%
Slush Pool	4%	5%	7%	8%
KnCMiner	4%	4%	2%	Closed
BitClub Network	3%	3%	4%	4%
GHash.io	1%	<1%	<1%	Closed
Eligius	1%	<1%	<1%	<1%

The 2017 Global Cryptocurrency Benchmarking Study has concluded the following findings with regards to mining:

- Seventy percent (70%) of large miners rate their influence on protocol development as high or very high, relative to only 51% of small miners.

- Scaling cryptocurrency transaction capacity is cited by small and large miners alike as a significant concern.

- About 82% of large miners perform multiple mining value chain activities (e.g., pool operator, hardware manufacturing, etc).

- Small and individual miners are concerned that mining fees will not be able to compensate for decreasing block rewards in the long run. The data shows that the proportion of transaction fees as a percentage of total Bitcoin mining revenues have significantly increased in 2016 and are projected to reach 10% by the end of 2017.

TECHCOIN ECOSYSTEM

The TechCoin ecosystem includes the following components, which makes it a coherent and sustainable system that facilitates and enriches the co-existence of its different features.

1. Cryptocurrency known as TechCoin
2. Custom blockchain protocol
3. Block explorer to track the transactions
4. Cryptocurrency exchange
5. Marketplace
6. Payment solution
7. Cryptocurrency wallet
8. Cashless payment platform
9. Own mining infrastructure

The exchange, marketplace, and the payment solution is accessible through a single web-based blockchain platform.

The TechCoin – an anonymous and fungible cryptocurrency

The TechCoin cryptocurrency is the primary functional currency of the TechCoin ecosystem. The ecosystem, being backed up by its own custom blockchain, aims to follow all the best practices of the fiat currency world, making it easy and functional for its users. Therefore, even if people are using the TechCoin on the backend, they won't have problems interacting with it because of the familiar general banking user interface.

TechCoin offers a variety of use cases, such as:

- Speculative digital asset or investment
- Medium of exchange
- Payment rail
- Non-monetary use cases such as immutable data store by embedding specific metadata

The whole TechCoin system is formulated in a way that it complies with all the banks and central banking institutions. It can be implemented on top of a swift infrastructure, which most banks currently have.

The following are the key features of TechCoin as a cryptocurrency:

- Minable cryptocurrency
- Dedicated custom blockchain
- Supported by 85% exchanges worldwide
- Can be easily traded into other multiple assets including flat currencies
- High liquid cryptocurrency with support from many liquidity providers

TechCoin blockchain – a fully decentralized custom blockchain

TechCoin works on a fully decentralized blockchain using its own custom algorithm called "Quantumnode". This technology is a hybrid blockchain with private and public access simultaneously, offering a better and a more advanced performance in terms of speed and data synchronization, and providing a reliable framework for individuals, businesses, market makers, as well as regulators.

The TechCoin blockchain is capable of generating blocks much more frequently than any currently available protocols in the market. it can complete transactions as many as 10,000 per second, which makes it one of the most scalable and fastest blockchain protocol ever developed.

Here are the specific TechCoin blockchain details:

Currency Unit	USI
Currency Logo	
Decimal Point	8
Actual Supply	500 Million
Total Supply	500000000.00000000
Minimum Transaction Fee	0.00000001 USI
Peerlist Limit	1000
Block Sync Default Count	100
Algorithm	Quantumnode

The details of the System Ledger Files are listed below:

Public SeedNodes	alphaseed.tech-coin.io
	betaseed.tech-coin.io
Web Wallet	wallet.tech-coin.io
Initial Mining Pool	pool.tech-coin.io
Blockchain Explorer	explorer.tech-coin.io
Downloads	explorer.tech-coin.io/downloads

Figure: TechCoin features

SCALABILITY

USI allow enormous potential for scalability performing more than 10,000 transactions per second that is thousands times more transactions than Bitcoin.

Techcoin Full Node
>10k tps

Techcoin Light Android
>300 tps

Ethereum
>15 tps
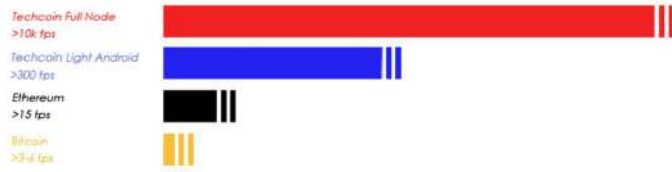
Bitcoin
>3-6 tps

SPEED

If we're talking speed, digital asset is 24 times faster than Ethereum not to mention Bitcoin which allows extensive use.

Techcoin

Ethereum — 120s

Bitcoin — 60min

The TechCoin blockchain is hosted at its own TechCoin infrastructure, which is runs in a snapshot and automated backups. All sensitive nodes run with load balancers and the whole system is networked and internally linked inside VPC.

Behind Techcoin Blockchain Infrastructure
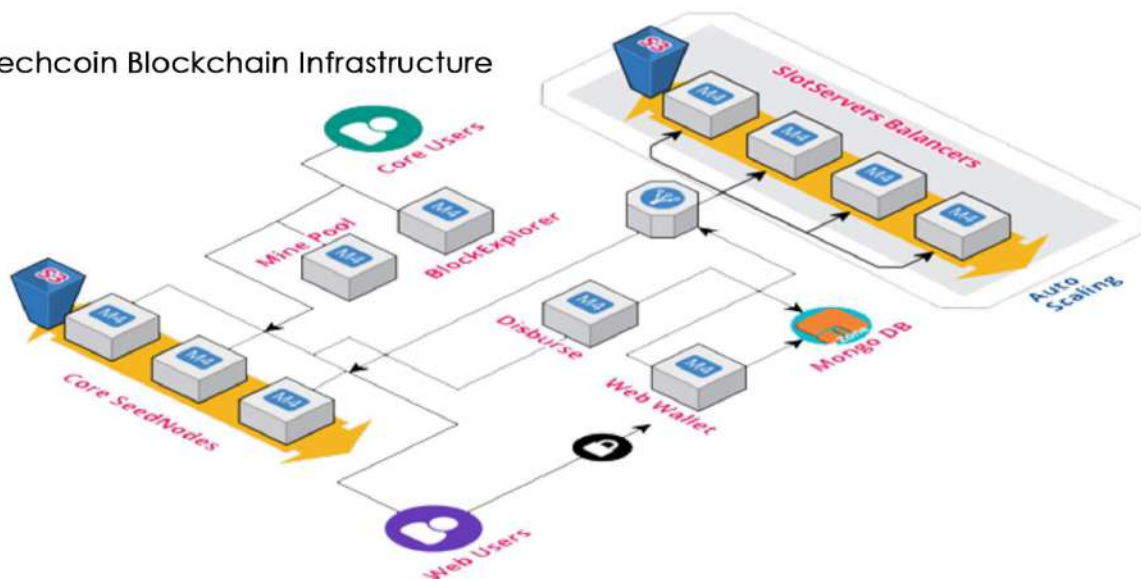
SeedNodes, the main nodes of the blockchain, are responsible for sync up of all TechCoin public ledgers. There are a total of three (3) seednodes, two are mentioned above (see table) and the other one is used privately by TechCoin servers. The addresses of these seednodes are hardcoded in TechCoin binaries. Considered as world ledger blocks, the block explorer contains a node that is connected to the third (private) seednode to tag the latest block status as aprivate node when in sync with another seednode.

A mine pool is also available for a regular user who wants to mine without having any geeky mess. TechCoin's CPU-friendly app connects to this node, which helps users quickly get blocks and mine from CPU-based resources.

TechCoin's web wallet is a simple node-based wallet simulating users blockchain in private environment at SlotServers. This node is talking to slot-servers via RESTful API's while their data is secured and backed at the Storage Server. Every verified TechCoin member will have access to their wallet, and a blockchain environment is created when a user logs on to the e-wallet for the first time. TechCoin's wallet is secure and follows the OWASP security guidelines.

TECHCOIN ARCHITECTURE
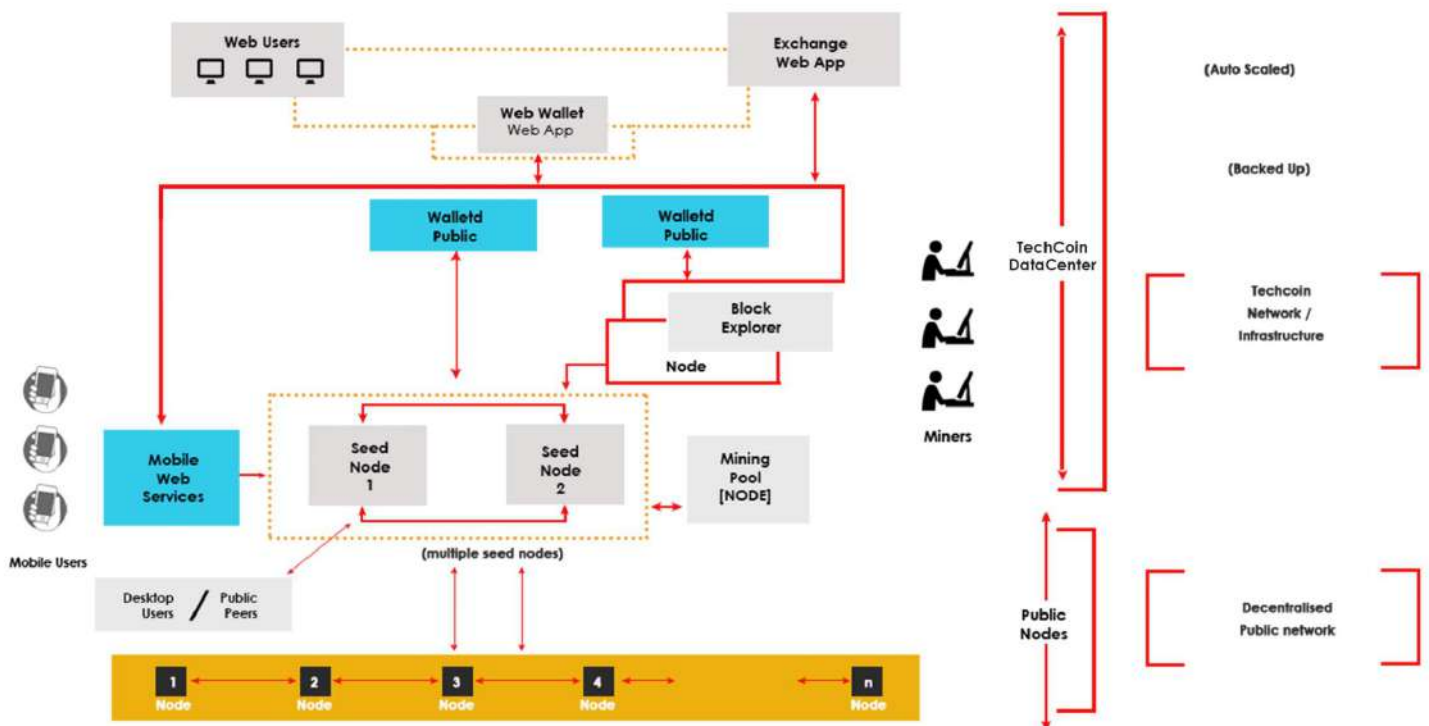
Increased security

TechCoin blockchain has enterprise-level security standards by performing multiple security measures and (Vulnerability Assessment and Penetration Testing (VAPT). AI-based algorithms will also be utilized in identifying potentially risky user behaviors.

Fully decentralized

TechCoin blockchain is fully decentralized with no central party having control on the blockchain including its own mining infrastructure. With no central authority acting as a central authority for transaction validation, the effort required to reach consensus is shared between the numerous miners. This ensures that TechCoin blockchain preserve the inherent features of the blockchain technology such as immutability, permanence, speed and security.

Secure smart contracts

Smart contact security is a top priority of TechCoin's team if expert developers. TechCoin blockchain will facilitate coding and deployment of custom smart contracts free of bugs and errors. TechCoin expert team will ensure that the protocol provides the most secure yet user-friendly environment for smart contract setup and implementation.
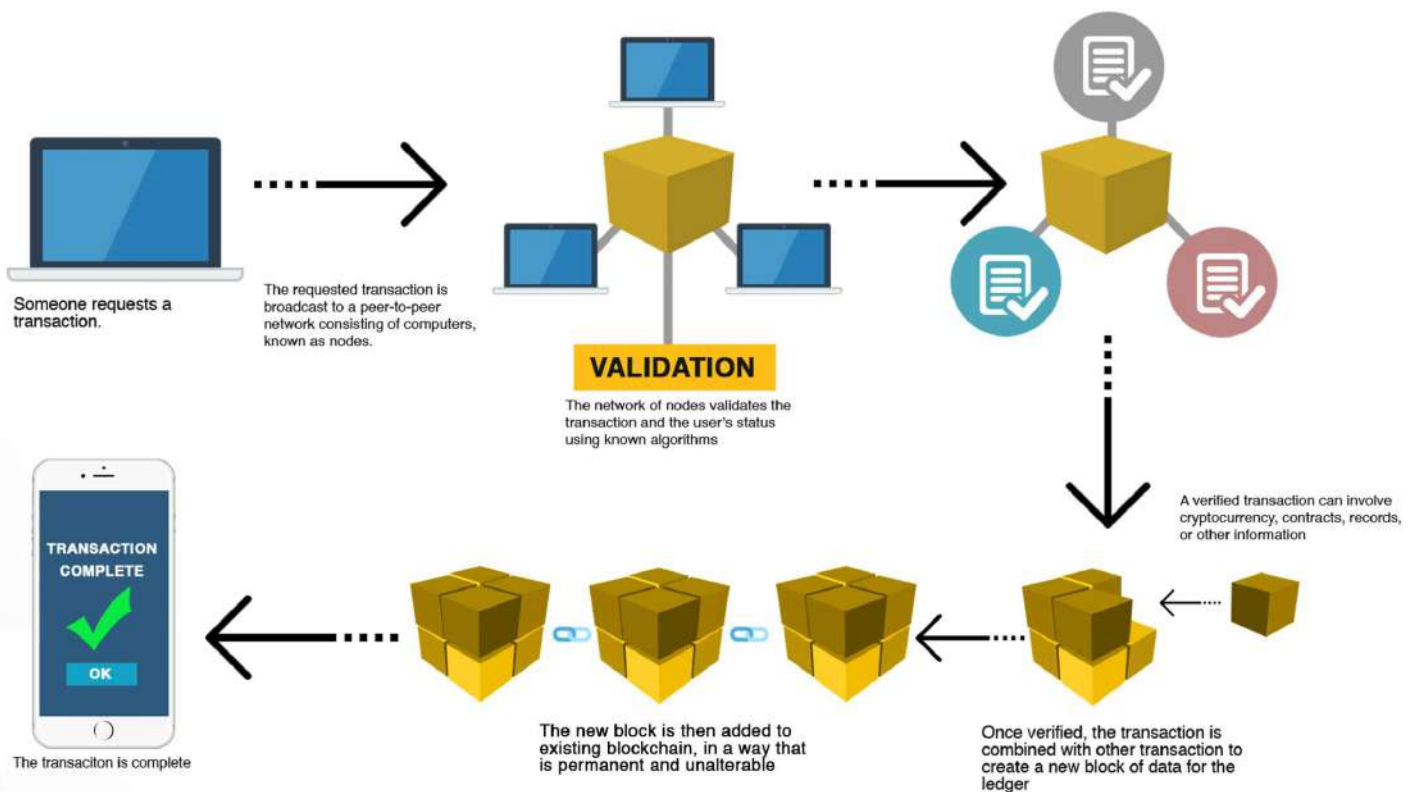
Difficulty levels and genesis block

The difficulty level of TechCoin will be controlled by a mathematical formula, once TechCoin is launched, it cannot be changed manually; crypto binaries will change this level automatically. Custom genesis block would be developed after public pre-mining, which makes the currency independent of other hashes and will have its own root hash.

Block explorer

A web-based responsive explorer will be developed which tracks and reports the digital tokens in circulation. The users can view the details of the digital tokens in circulation and the transactions using this web interface.

Figure: How TechCoin blockchain works

Someone requests a transaction.

The requested transaction is broadcast to a peer-to-peer network consisting of computers, known as nodes.

VALIDATION

The network of nodes validates the transaction and the user's status using known algorithms

A verified transaction can involve cryptocurrency, contracts, records, or other information

Once verified, the transaction is combined with other transaction to create a new block of data for the ledger

The new block is then added to existing blockchain, in a way that is permanent and unalterable

The transaciton is complete

TRANSACTION COMPLETE

OK

TechCoin wallet – a secure, multi-currency wallet

The TechCoin wallet provides a secure storage of private and public keys as it interacts with various blockchains. It is a multicurrency wallet with support for most of the cryptocurrencies and fiat currencies as well.

The wallet is accessible on the web, or as a mobile and desktop app. Users are able to send funds to other users' wallet addresses, as well as receive funds into their wallet address from other users in a fast and secure user interface. Receiving funds into a wallet can be done through the use of barcodes, as well as an encrypted public key. The TechCoin wallet works on a P2P protocol and all transactions are fully encrypted.

What makes the TechCoin wallet unique is its simple and intuitive user interface. The wallet can display account balances of both crypto and fiat currencies in a single interface.

Key features of TechCoin wallet:

- Provides a simplified Buy, Sell, and Convert options inside the wallet
- Supports almost all cryptocurrency and fiat currency
- Available on all major platforms – Windows, Linux, MAC, iOS, and Android
- Seamlessly send and receive from other wallets in the market
- An international debit card linked to wallets issued at no cost
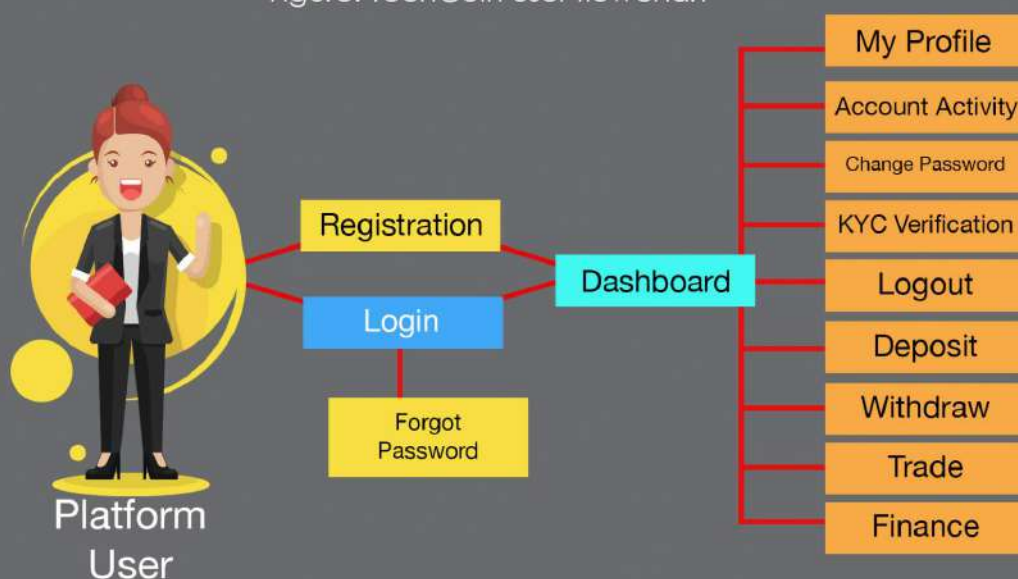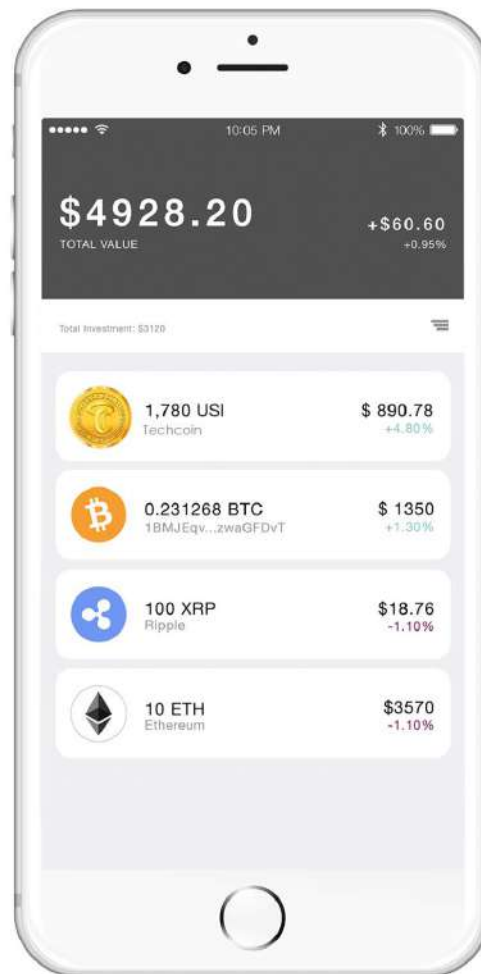

Figure: TechCoin user flowchart

Figure: TechCoin wallet interface mockup on iPhone

$4928.20
TOTAL VALUE

+$60.60
+0.95%

Total Investment: 53120

1,780 USI Techcoin	$ 890.78	+4.80%
0.231268 BTC 1BMJEqv...zwaGFDvT	$ 1350	+1.30%
100 XRP Ripple	$18.76	-1.10%
10 ETH Ethereum	$3570	-1.10%

TECHCOIN PLATFORM – AN ALL-IN-ONE CRYPTO PLATFORM

A highly secured web-based platform running on custom blockchain technology incorporates these three main functionalities:

- A cryptocurrency exchange
- A cryptocurrency payment solution/gateway
- The TechCoin marketplace

TECHCOIN Exchange

The TechCoin Exchange is an advanced state of the art ultra-low latency aggregation, smart order routing and reporting engine that is capable of sub-millisecond order processing. A trading solution that is fully scalable, the TechCoin Exchange is supported by more than a hundred liquidity providers in the market. It facilitates a transparent service level while operating with no conflict of interest to the traders and partners, ensuring long-lasting and mutually beneficial relationships.

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The cryptocurrencies supported on the TechCoin's Exchange at launch include Bitcoin (BTC), Litecoin (LTC), and Ethereum (ETH). It also supports fiat currencies including EUR, GBP, and USD, making it 6 currencies and up to 12 currency pairs. The supported currencies and pairs are to be increased over time.

The Exchange includes the following features:

- Fully featured dashboard with quick access to key matrix
- Real-time margin and position views
- Decentralized cross-chain exchange
- Advanced bespoke charting and AI-powered trading signals
- Complex order routing capabilities to level account symbols, order types, etc.
- Advanced ultra-weight servers for plug-ins
- Full market watch features with market depth
- Full support for large parallel processing
- Capable of processing thousands of trades per second
- Sophisticated synchronization system
- Comprehensive real-time reporting
- Allows fast and reliable trading 24/7
- Provides many helpful options to deposit flat currency and cryptocurrency for buying other cryptocur rencies. This is possible through credit or debit card or internet banking.
- Able to redeem cryptocurrency on the exchange for fiat currency
- Able to make direct fund transfers to local banks with escrow facility

Figure: Techcoin Exchange interface mockup

The TechCoin's exchange platform is designed with a modular architecture, making it highly scalable and user-friendly, from signing up to actual trading. It is equipped with a security-extensive vulnerability assessment, decentralized ledger, two-factor authentication and alerts, and simple or advanced know your customer (KYC) process. It supports multiple fiat and cryptocurrencies, and there is a reliable ticket and support system.

TechCoin payment solution

The TechCoin payment solution enables end users to submit and transfer funds across the world. Users are able to register on the platform and send funds to other users across the globe via their Unique Identification Number (UID), mobile number, or e-mail. Once registered, users are then able to get funds into their wallet and take advantage of this feature. In addition to this, the funds can be withdrawn against fiat currencies at any time. The TechCoin's payment solution can also be utilized by merchants as a payment gateway for their e-commerce transactions. This advantage opens the merchant's business to a larger available market.

The key features of the TechCoin payment solution include:
- Fund transfer across the globe is seamlessly possible for both B2B and B2C users
- Allows quick account setup with UID, mobile, or e-mail
- Quick merchant registration
- Easy integration with many popular e-commerce platforms such as Magento, WordPress, Big Commerce, etc.
- Ultra-fast and secure check out process
- Allows withdrawal of funds into local banks in flat currencies with almost zero fees

TechCoin marketplace

The marketplace in the TechCoin ecosystem enables end users to buy and/or sell products and services via a web-based platform. The users can register as a buyer to obtain products and services, or as a seller/retailer to provide them to the buyers. Online payment for the product and services in the marketplace is done using the TechCoin.

Its key features include:

- Quick account setup as a buyer or seller with UID, mobile, or e-mail
- Use of both cryptocurrency and fiat currency for transactions
- Integration of TechCoin payment gateway
- One click payment with the use of TechCoin wallet
- Transfer of sale proceeds to local bank accounts with almost zero charges

Figure: Potential E-commerce transactions at TechCoin marketplace

TechCoin Payment Platform – Equipped with a Multicurrency Debit Card

A cashless payment platform with a multicurrency debit card is incorporated in the TechCoin ecosystem. It enables users to perform cashless transactions worldwide with no additional fees. The debit card supports both cryptocurrencies and fiat currencies that are automatically converted.

The key features of the TechCoin payment platform:

- Secured cashless payment for everyone
- Worldwide acceptance
- No card issue charges or annual fees
- No transactional fees
- Real-time transaction processing that is available 24/7
- Multicurrency support
- No minimum balance to maintain
- Reward point system that can be converted into monetary value

Figure: TechCoin Cashless Payment Platform

SECURITY MEASURES

The following security measures are incorporated into the TechCoin platform, where applicable:

- Two Factor Authentication (2FA). The 2FA is an added layer of security that requires confidential information only known to a specific user. This unique data, along with a user's username and password, is used to get into their accounts securely. A one-time password (OTP) facility on registered mobile numbers is also available as an additional measure.

- Know Your Customer (KYC) in place. KYC is a process of identifying and verifying the customer's details to avoid fraudulence.

- AES Encryption Prevention. The AES is an algorithm used to decrypt encrypted data in order to obtain the confidential texts. The TechCoin solution avoids this function, making sure that all confidential information is safe and secure.

- Missing Secure Header on HTTP Request/Response such as the following are incorporated:
  o X-Frame-Options
  o HTTP Only
  o Secure Flag

- Errors in debug mode are enabled.

- Mail ID encryption

- Hot/Cold wallet system integration

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HIGH-TECH MINING INFRASTRUCTURE

TechCoin's team of phenomenal developers and IT experts manage the mining data centres of the system. These data centre facilities are in a climate controlled environment 24/7 with a special cooling system, which enables the efficiency of their GPUs and Asic's. Currently, TechCoin has five mining facilities in various strategic locations all around the globe. For security and information sensitivity, the exact locations of these centres cannot be disclosed.

In order to further expand TechCoin's mining infrastructure, it aims to reach 1% hash rate of Bitcoin and 2.5% for Ethereum. A portion of the funds to be raised from the token sale will be used to improve and augment these data centres.

The core technology of the mining data centres are developed solely by TechCoin, from circuit boards to middleware to application software layers based on the following set of guidelines:

MODULARITY. For the sake of scalability, modularity is a fundamental design strategy used by TechCoin. A modular environment is an essential contributor to the success of the mining units.

COST-EFFICIENCY. The technology that runs the mining infrastructures has been studied to the core and carefully developed. With the ultimate goal of creating devices with the highest ROI at the lowest overall risk, TechCoin ensures that its well-engineered solutions are focused on improved ROI over the unit's lifetime.

MAINTAINABILITY. Keeping operational costs low is an obvious key to success. Automation approaches are therefore preferred over manual processes.
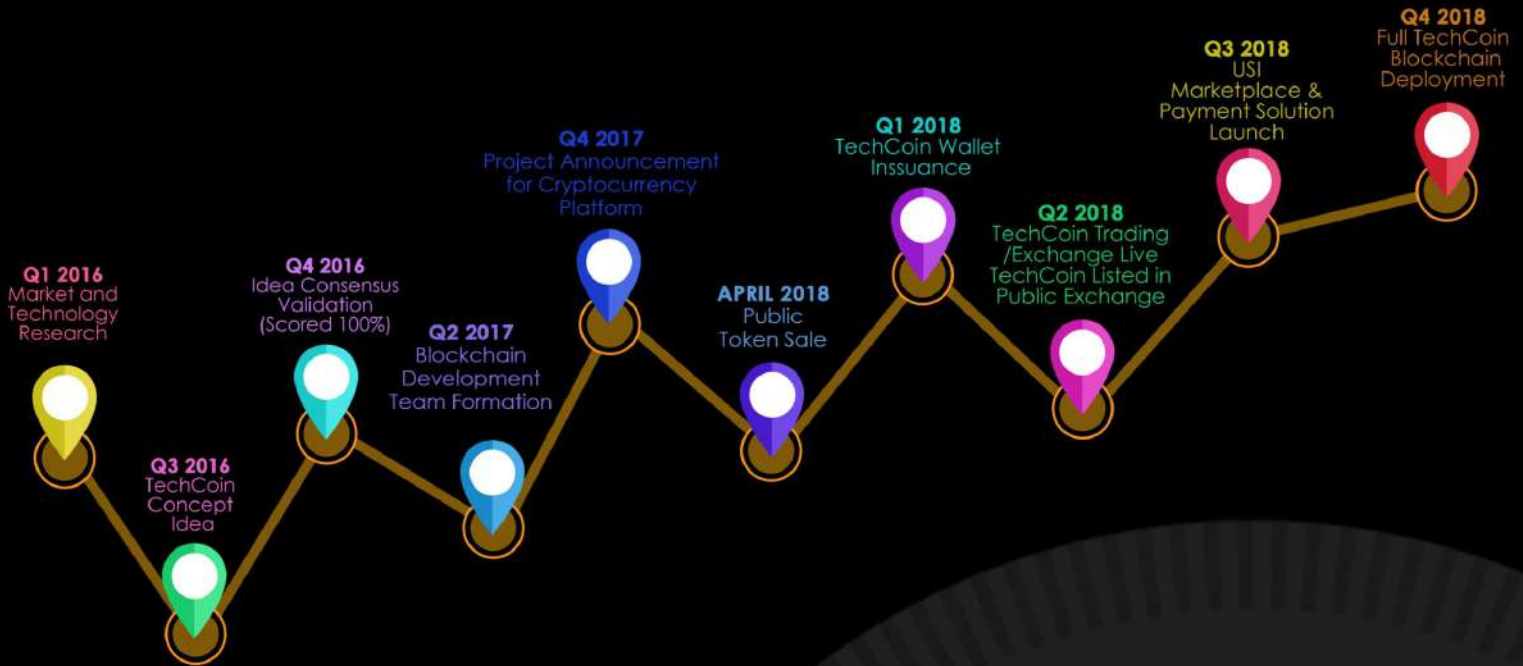
PLUG 'N PLAY. Replacing, removing, adding, and transferring units and devices do not affect the system's operation. A sophisticated plug 'n play system is designed to track and balance connected components quickly.

GREEN ENERGY. TechCoin prefers to use green energy resources, as part of its sustainability goal. The major part of the system's energy requirement is met via green energy solutions such as solar and wind power sources.

COOLING OPTIMIZATION. Any data centre requires cooling, as the environmental climate determines the system's efficiency. A maintainable and error-proof system is the key to an autonomous mining operation. TechCoin has therefore developed a largely passive and highly-efficient cooling system that keeps the mining units running even when the outside temperatures are high.

THE ROADMAP

Given below are the key past and planned milestones in the implementation of the TechCoin Ecosystem.

Q1 2016
Market and
Technology
Research

Q3 2016
TechCoin
Concept
Idea

Q4 2016
Idea Consensus
Validation
(Scored 100%)

Q2 2017
Blockchain
Development
Team Formation

Q4 2017
Project Announcement
for Cryptocurrency
Platform

APRIL 2018
Public
Token Sale

Q1 2018
TechCoin Wallet
Inssuance

Q2 2018
TechCoin Trading
/Exchange Live
TechCoin Listed in
Public Exchange

Q3 2018
USI
Marketplace &
Payment Solution
Launch

Q4 2018
Full TechCoin
Blockchain
Deployment

TECHCOIN TOKEN

Structure

After the ICO period, all contributors will receive the TechCoin tokens in their TechCoin wallet. The token is a core component and primary driver of the TechCoin ecosystem, as it is designed to facilitate all kinds of operations within the platform. It is fractionally divisible, transferable, and fungible. All token-based transactions are tracked within the TechCoin platform, so in any case of force majeure, such as a large token theft or contract compromise, the system may opt to freeze token transfers and issue a new token contract with balances replacing that of the original token registry by a certain date.

Use of TechCoin

How to get TechCoins	How to spend TechCoins
Purchase pre-mined coins at ICO	Exchange for other crypto currencies
Purchase at exchanges	Exchange for local fiat currencies
Exchange for fiat currencies	Buy products/services with the debit card
Acquire by TechCoin mining	Buy products/service at the marketplace

Adoption

TechCoin features many integrated components, including an exchange, a wallet, and a payment solution. This makes the platform comprehensive and sustainable while being closely connected with the fiat currency world. The system aims to further expand its function beyond the crypto community so it can reach a broader audience. Given their extensive industry experience, the TechCoin development team knows exactly what the consumers need. The team makes it very simple and straightforward for consumers to buy, earn, and use their TechCoin tokens. The complexities of opening and maintaining a cryptocurrency wallet are made seamless and hassle-free using the TechCoin's website and web or mobile app.

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TOKEN SALE

With the goal of building a socially responsible ecosystem, TechCoin established a token sale as a reward-based crowd sale campaign. In the tokens sale, contributors will receive TechCoin tokes for their contributions.

ICO Structure

TechCoin will issue 1 billion TechCoin tokens at €0.50 each. The initial value of the token will be one (1) token for one (1) TechCoin. Fifty percent (50%) of the total token supply will be issued initially to members with the following bonus structure.

Table: Token bonus distribution for existing Techcoin members

First Bonus	125 Million
Second Bonus	250 Million
Third Bonus	375 Million
Fourth Bonus	500 Million

Once the 500 million tokens have been issued to the members, the remaining 50% of the total tokens will then be issued to the public with the following bonus structure.

Table: Token bonus distribution for the public

First Bonus	TBA
Second Bonus	TBA
Third Bonus	TBA
Fourth Bonus	TBA

Listing on exchanges

Once the ICO is complete, TechCoin will be listed on most of the major exchanges. It will then be available on its own exchanges when the development is complete.
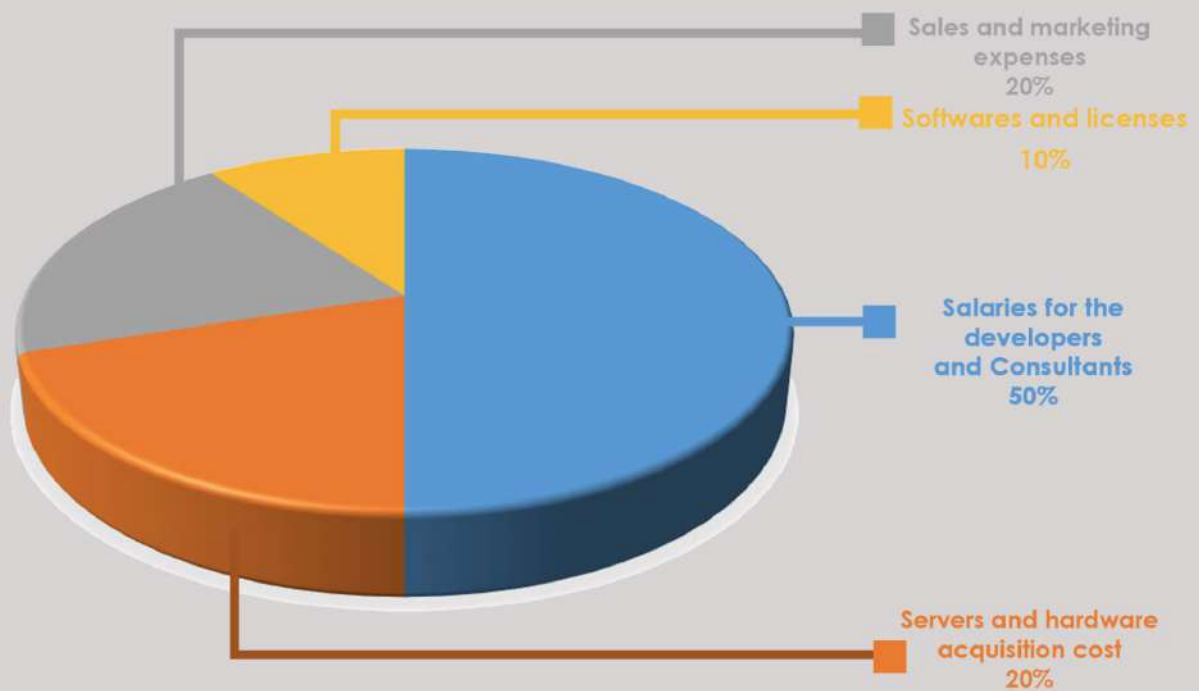
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USE OF FUNDS

The funds collected through the ICO will be used to cover the project expenses until the project starts making profits and sufficient cash flows to function on its own.

The key expenses where the funds collected will be used are given below:

- Salaries for the developers and consultants
- Servers and hardware acquisition costs
- Sales and marketing expenses
  Software and licenses

Chart: Use of funds – composition

Sales and marketing expenses
20%

Softwares and licenses
10%

Salaries for the developers and Consultants
50%

Servers and hardware acquisition cost
20%

CONCLUSION

With the rapidly expanding cryptocurrency market, it is evident that any new project that can address the current market weaknesses would become the next big thing in the crypto world. TechCoin, with its own blockchain protocol and complete ecosystem, is equipped with all the necessary ingredients to become viral and capture a large market share in a short period. It is even expected to double its current user base soon after its launch.

TechCoin aims to achieve a revolutionary cryptocurrency platform. With its team of industry veterans who possess all the essential skills and expertise, this vision is definitely within reach. The team is dedicated to creating a crypto software that incorporates advanced features and technologies, ensuring its sustainability and function. These factors contribute towards creating a strong cryptocurrency with a highly liquid market where both short and long-term investors could expect a higher return on their investment relative to other existing cryptocurrency or ICO investment options.

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