



# **STARCR**

**WHITEPAPER**

**Version 1.3**

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## Disclaimer

The sole purpose of this whitepaper is to introduce the Starcro platform and Starcro coin XSC to assist potential Starcro coin holders in making decisions in regards to the purchase of Starcro coin XSC. This whitepaper was written to provide useful information, a thorough overview of Starcro and background on its developer for potential Starcro coin holders.

This whitepaper is NOT a solicitation for investment or any kind of persuasion. This whitepaper is not an offer of securities or a collective investment scheme IN ANY TERMS OR CONDITIONS. This whitepaper shall NOT be subject to any regulations or restrictions in any jurisdictions.

The recipient acknowledges, understands, and agrees that Starcro coin XSC shall not be traded or transferred in any jurisdictions where trades or transfers of cryptocurrencies are banned or restricted.

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The origin of official information on Starcro coin XSC (hereafter referred to as “XSC”) and the Starcro platform is a whitepaper written in English. The information contained herein may be translated from time to time into other languages or used throughout the course of written or verbal communication with potential XSC holders. In the course of such translation or communication, some information contained herein may be lost, corrupted, or misrepresented. The accuracy of such alternative communications cannot be guaranteed. In the case of a conflict between the English and translated versions of information or communication, the provisions of this English-language original document shall prevail.

## Summary

The key points of the Fourth Industrial Revolution are “sharing” and “connection.” Starcro dreams of a hyper-connected society whereby all human beings are networked together through blockchain technology. Starcro is prepared to serve as a platform where the creation of wealth is democratized rather than redistributed. Consequently, Starcro’s main objective is fair distribution through a reasonable reward system for its participants.

Starcro is a payment interface and blockchain platform that supports live transactions and trading based on rapid transaction confirmation times achieved by incorporating Starcro into daily life via a card payment system. Starcro hopes to standardize its proof and reward system in order to engage more participants.

Starcro uses Proof-of-eXpansion(PoX) as a consensus algorithm, and any node in possession of 1XSC can run the PoX system; however, a supernode and transfer chain structure provides network services, and only service providers can execute supernodes and transfer chains to ensure Starcro’s platform stability. Only service providers have authority over supernodes to 1) stabilize the Starcro platform, 2) clarify liability, and 3) make providers responsible for compensation whenever a problem occurs.

A referral link and referral ID are given to each participant. If participating PoX nodes are connected via the referral link and referral ID, rewards from the referred node increase depending on the tier of the participant.

Starcro distributes a maximum of 20,000 XSC and a minimum of 0.1 Ethereum(ETH) to each participant during Initial Coin Offering(ICO) periods.

# Background

## Cryptocurrency

Cryptocurrencies utilize hash functions to generate new coins and verify trade transactions for security purposes. Since the birth of Bitcoin in 2009, many other cryptocurrencies including Ripple, Dash, Ethereum, and Monero have made their mark as distinct altcoins in the cryptocurrency world.

Cryptocurrencies, strictly speaking, are distinct from virtual currencies (hereafter referred to as “VC”). The main difference between VCs and cryptocurrencies is currency dependency. Most VCs have been issued through a certain centralized monetary system with rational economic structures, and thus should be controlled by a central authority. Therefore, VCs can fall prey to irrational management, unreasonable regulations, and even the unexpected disappearance of their central systems, which has led many to experience a loss of assets or to declare insolvency. However, cryptocurrencies do not structurally depend on a central authority; thus, the decentralization of cryptocurrencies prevents the disreputable consequences that have been prevalent with VCs.

An unknown person or group of people designed Bitcoin under the pen name Satoshi Nakamoto through a Proof-of-Work (PoW) system, incorporating the SHA-256 hash algorithm in the system’s mining mechanism to verify trade transactions. All of Bitcoin’s encrypted codes were revealed through open source, which contributed to the rapid germination and improvement of other altcoins that have revamped some of Bitcoin’s existing fundamental problems.

## Blockchain

Cryptocurrencies are created based on blockchain technology, which is a type of distributed ledger that is open and decentralized. As a decentralized database, blockchain continuously updates transaction records and is, by design, inherently resistant to modification of data by a specific node. Blockchain imposes a consensus algorithm that saves all updated data on each node's shared public ledger. This allows nodes to participate in the network with anonymity, poor connection, or even lack of credibility.

Further, blockchain does not need a centralized database, and contrary to a typical ledger (which records every transaction of promissory notes, receipts, or checks) blockchain represents both a storage and trade verification platform that is secure and transparent.

Blockchains are categorized under two main classifications: public and private. Public blockchains are completely open and anyone can participate in these networks. On the other hand, private blockchains are decentralized peer-to-peer networks that limit participants, allowing entry to the network by invitation only.

Public blockchains have known issues. The main problems are as follows: 1) lots of input is required to maintain and control a network consisting of unspecified individuals, 2) any shared information is disclosed throughout the network, and 3) processing time is extremely slow.

Private blockchains, on the other hand, automatically process live transactions in a secure network without massive computing power, which demonstrates the advantages of blockchain technology while compensating for the problems of public blockchains. However, the centralization of the consensus structure and control system causes credibility issues.

## PoW(Proof-of-Work)

Proof-of-Work (PoW) is typically known as “mining,” and technically speaking, PoW is defined as searching for a hash value that must be less than the target value through continuous hashing. All miners compete in the search for this target, and a block is issued to the miner who find a hash value less than the target. Transactions can then be processed on that block. For being issued a block, the miner is rewarded and is given all the transaction fee(s) processed within that block. Mining consists of a persistent search for hash values, and massive computing power allows more rapid hash rates. Thus, greater computing power is top priority to reap rewards in this competitive environment. As mentioned, since large computational resources are required to gain high rewards, the initial investment cost to participate successfully in a PoW algorithm structure is high, and due to the presence of Application Specific Integrated Circuits (ASIC), rewards for miners with typical CPU and GPU are relatively less.

## PoS(Proof-of-Stake)

Unlike PoW, Proof-of-Stake (PoS) is more cost-effective in the sense that it is not dependent on computing power. In other words, rewards increase relative to the stakes put forth in cryptocurrency, making computing power irrelevant. While PoW legitimizes blockchains, mining requires suitable hardware to expend enough energy within a physical space and capacity. A PoS network can be accessed by anyone who possesses a stake in cryptocurrency, allowing more dispersion among a distributed consensus so more people can easily participate in decision making.

## **PoI(Proof-of-Importance)**

Proof-of-Importance (PoI) is a blockchain consensus algorithm introduced by NEM and is fundamentally different from PoW and PoS. PoI allows users to participate in a network with every account on the NEM blockchain given an importance score that influences how individual users can harvest the blockchain. Not only does PoI reward users who have acquired more stakes in cryptocurrency, but it also affects all aspects of the trading process such as who participants trade with and how many people are involved. The primary purpose of PoI is to provide agency to individuals throughout the process.

# Starcro

**Starcro is a global content service platform that provides a live payment and transaction interface.**

## Anonymity and Transparency

A well-known feature of cryptocurrency is anonymity. Unlike with bank transactions, where account and routing numbers are directly linked to individuals, cryptocurrencies are either mined or acquired through electronic wallets without the use of private information. Further, transactions do not require much private information, as one only needs to open an account on a web trading platform, which then provides an account and private key.

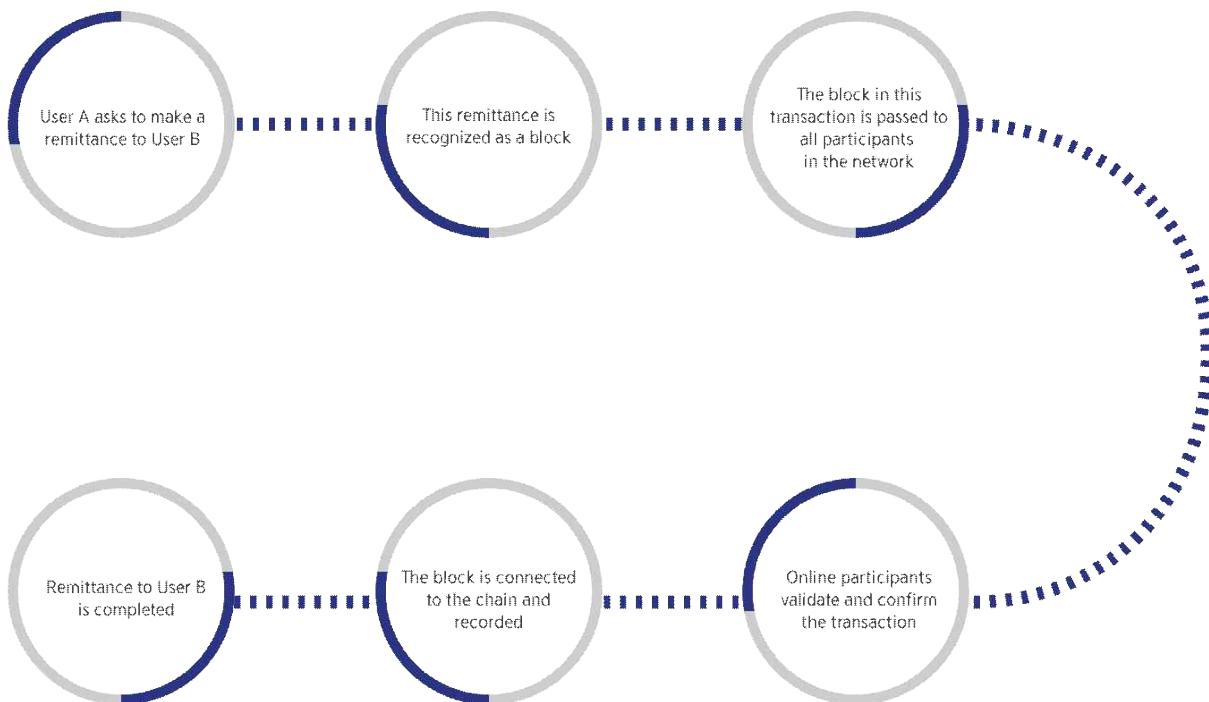
However, this does not mean that user anonymity is fully guaranteed because cryptocurrency transparency is also considered an essential feature. Trades and transactions are stored on a blockchain platform, which is an open, distributed ledger revealed to all users within the network. Therefore, if a user uses a feature on a blockchain platform that requires identity verification, all his/her information and transaction records become traceable.

In order to secure participants' information and counteract any malicious attacks, Starcro allows only identity-verified individuals to participate as Starcro provers, who provide referrals to others. Through this process, Starcro 1) establishes credibility for blockchain technology, 2) makes blockchain interactions upright by requiring moral participation, and 3) stabilizes blockchain technology.



## Transaction Confirmation Time

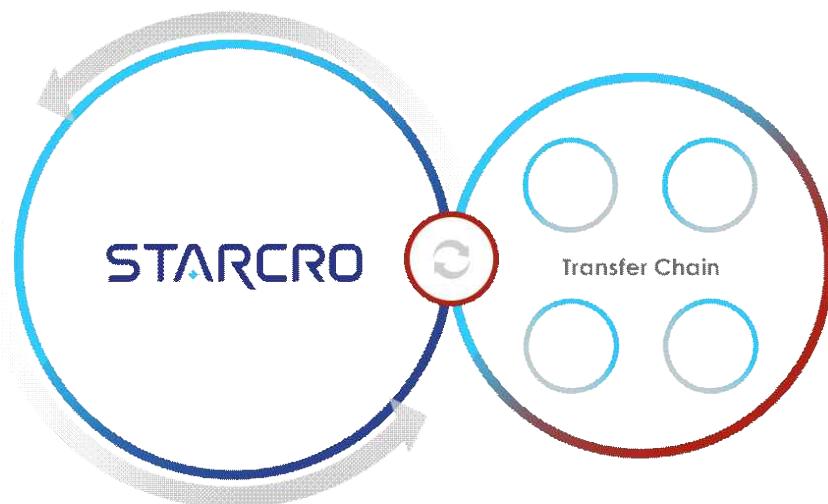
Block time and transaction confirmation time are closely linked. For instance, a successful Bitcoin trade is designed to undergo a 6-step procedure (in 60 minutes), which is nearly impossible to incorporate with real-time payments or trades in daily life. A fraction of users modify and manipulate these 6-step procedures to shorten trade times at their own risk.



To ensure Starcro's live payments and transactions, supernodes and transfer chains have been implemented. This enables Starcro payments and transactions to be successfully processed in under 3 seconds.

## Supernodes & Transfer Chain

All nodes activated within a blockchain network experience high traffic and require significant resources. To maintain a stable blockchain environment, there is no way to avoid an increase in the cost of nodes and the spread time of blocks. The spread time of blocks directly corresponds to trade confirmation time, and the increase in cost should not be neglected; thus, through the utilization of supernodes, transfer chains have been implemented to forestall the aforementioned issues.



To operate a supernode, network service levels within a blockchain network are used as constant collateral, and the supernode is rewarded for providing this collateral. Only a qualified(must have at least 50,000 XSC) service provider can offer a supernode, and when a supernode is in an active state, it provides service to a network's clients and receives a dividend. This dividend is calculated according to a set ratio, meaning rewards will be divided among all supernodes. Further, a supernode has the right to develop and improve the Starcro platform.

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While a supernode provides network service as collateral, it also executes a special transfer chain at the same time. Unlike general blockchain transactions that are done under a distributive consensus leading to slower confirmation times, Starcro's transfer chains only require collaboration between the sender, recipient, and a supernode for independent transactions and payments. In other words, there is no need for approval from all nodes within a network on the Starcro platform, allowing Starcro's transaction confirmations to be processed in under 3 seconds.

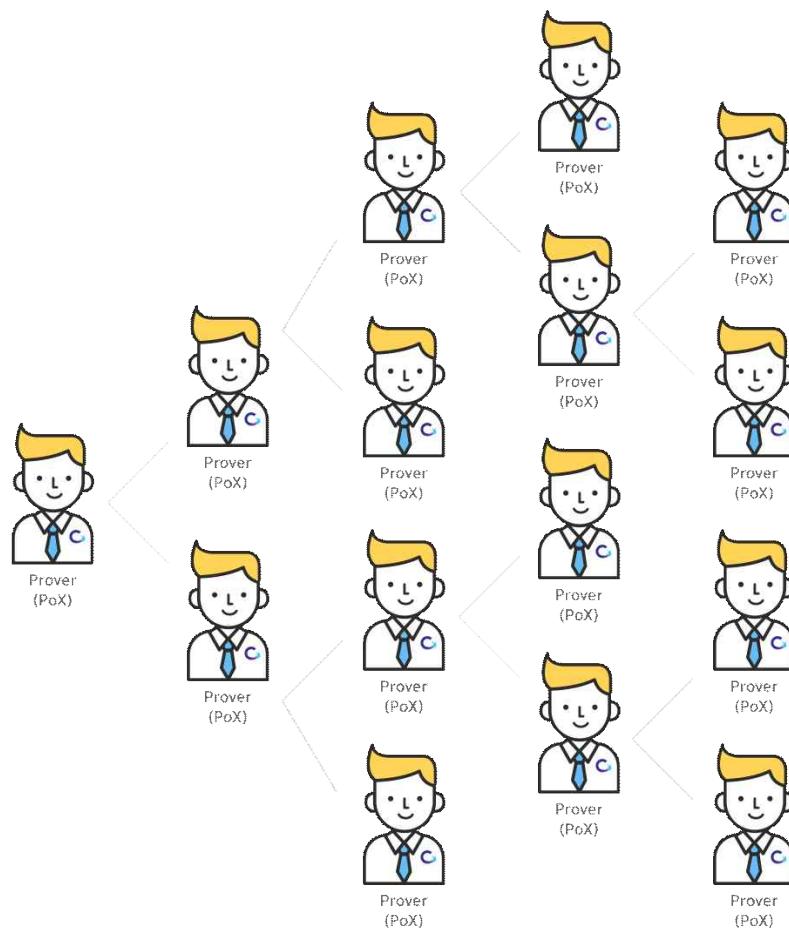
Trading on a transfer chain supports 1:N and N:N transactions, and to prevent any cases of cyber-fraud, an extra, separate private key is used. This technology in turn represents a more decentralized trading platform, ensuring the safety and security of trade and transactions through the separate private key feature.

The rights mentioned above are only given to certain qualified network providers/agencies to ensure the stability and safety of the Starcro platform, with such providers holding liability and responsibility.

## Consensus Algorithm

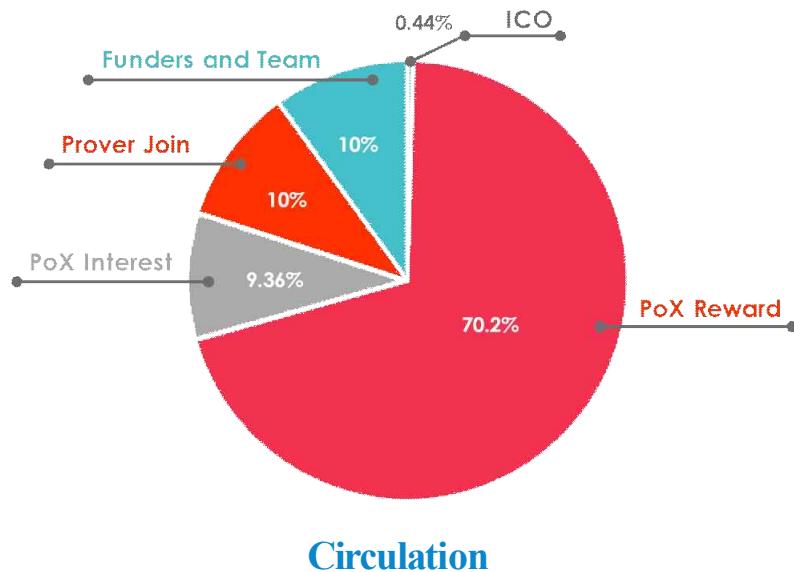
Starcro's blockchain consensus algorithm employs Proof-of-eXpansion (PoX). PoX is a proof of expansion or proof of relationship defined by the Starcro platform. Any node in possession of 1 XSC can participate in PoX. PoX does not require high computing power like PoW, bearing more similarity to PoS, where users with higher stakes are more highly rewarded. PoX provides referral rewards to easily engage more people in decision making.

In other words, a node executing PoX can introduce the Starcro platform to others with a given referral link and referral ID. A new node can join the Starcro platform via the referral link or enter the referral ID and execute PoX afterwards. The referred node is rewarded with a referral bonus.



## Stable Issuance and Rewards

The total supply of XSC is 10 billion (10,000,000,000 XSC). Some are distributed through ICO. XSC distribution is shown below.



Issuance of PoX rewards is limited to 19,500,000XSC per month for stable circulation. Prover joining rewards, ICO, and PoX interests are paid regardless of volume of monthly issuance. PoX rewards, which is the core of XSC issuance, are paid monthly, and the full amount is guaranteed until reaching a limited number of people of each tier. Prover joining rewards and PoX rewards will be adjusted when the number of provers exceeds the limit. However, if the number of provers does not reach to the limit, the remainder, except for the XSC rewards that were paid, will be carried forward to when the 30-year issuance period is over.

Prover joining rewards are affected by the number of Tier Cronus. For example, if the number of Tier Cronus is 9,751, the rewards for Cronus will be  $975,000\text{XSC} \div 9,751 = 99.98974464$  XSC, so the amount of Prover joining rewards will be adjusted to 0.99989744 XSC.

- PoX issuance percentage per tier and maximum number of provers per tier

Prover Tier	Issuance Rate (%)	Monthly Rewards (XSC)	Maximum Recipients (person)
Star	40	7,800,000	7,800,000
Planet	30	5,850,000	1,950,000
Galaxy	10	1,950,000	390,000
Universe	10	1,950,000	195,000
Cronus	5	975,000	9,750
Service Provider	5	975,000	975
<b>Total</b>	<b>100</b>	<b>19,500,000</b>	<b>10,345,725</b>

- PoX rewards and criterion per tier

Prover Tier	Prover	Star	Planet	Galaxy	Universe	Cronos
Referral node (Prover)	1	2	50~249	250~999	1,000~9,999	10,000
Monthly Referral reward (XSC)	-	1	3	5	10	100
Yearly Interest (%)	5% (in effect until 2028)					

User A initiates PoX and provides its own referral link and referral ID via the network. Then, User B uses that referral link or referral ID and activates PoX. The system starts to count a referral node. We use the term “prover” for referral nodes that proceed with the use of PoX. As the number of provers linked to User A increases and reaches 10, 50, 250, 1000, and 10,000, User A is given monthly assigned rewards. Furthermore, User A can get an additional 5 percent annual interest for owning coins. The annual interest reward program will be in effect ONLY for 10 years from the first day of XSC issuance. If User A gets 1 XSC for initially activating the PoX program and connecting 10,000 provers in a month, the XSC given for a year is as follows.

Month	1	2	3	4	5	6
Own XSC	1	101.00	201.42	302.26	403.52	505.20
XSC Interest	0.004	0.421	0.839	1.259	1.681	2.105
Total XSC	1.004	101.42	202.26	303.52	405.20	507.31
Month	7	8	9	10	11	12
Own XSC	607.31	709.84	812.80	916.18	1,020.00	1,124.25
XSC Interest	2.530	2.958	3.387	3.817	4.250	4.684
Total XSC	609.84	712.80	816.18	920.00	1,024.25	1,128.94

## Transaction Fees

The Starcro platform charges a 0.01 XSC fee per transaction. Out of 0.01 XSC, 0.005 XSC is discarded and excluded from the total supply. The remaining 0.005 XSC is invested in the foundation to be used as shown below.

- **50%: Donations for the socially disadvantaged and charities**
- **30%: Rewards for Starcro service providers**
- **20%: Support for project development via Starcro contests**

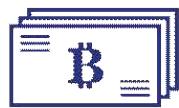
## Currency Exchange

Hundreds of cryptocurrencies are being traded on trade exchange platforms, and many users already have cryptocurrencies of various kinds. These cryptocurrencies can also be exchanged into XSC on the Starcro platform.

Many cryptocurrencies aim to develop this type of exchange via side chains. However, Starcro is taking things to the next level by publicizing its API and linking all cryptocurrencies under our platform.



BITCOIN



BITCOIN CASH



LITECOIN



MONERO



ETHEREUM



DASH



Zcash



QUANTUM



EOS



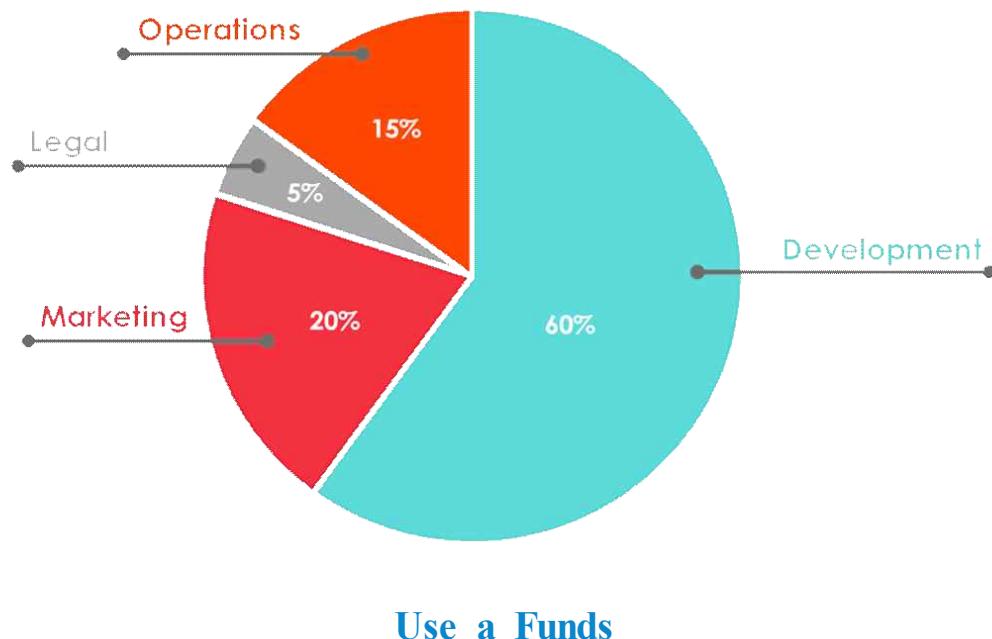
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Starcro's cryptocurrency exchange process is as follows:

- Client transfers specific cryptocurrency, as verified through account and private key
- Specific cryptocurrency is transferred to Starcro platform
- The specific cryptocurrency asset is frozen
- An XSC amount equivalent to the transferred cryptocurrency is issued to client
- Client approves the XSC deposit
- The frozen cryptocurrency is either owned by the Starcro platform or provided to a client who requested a relevant exchange on the Starcro platform

## Use of Funds

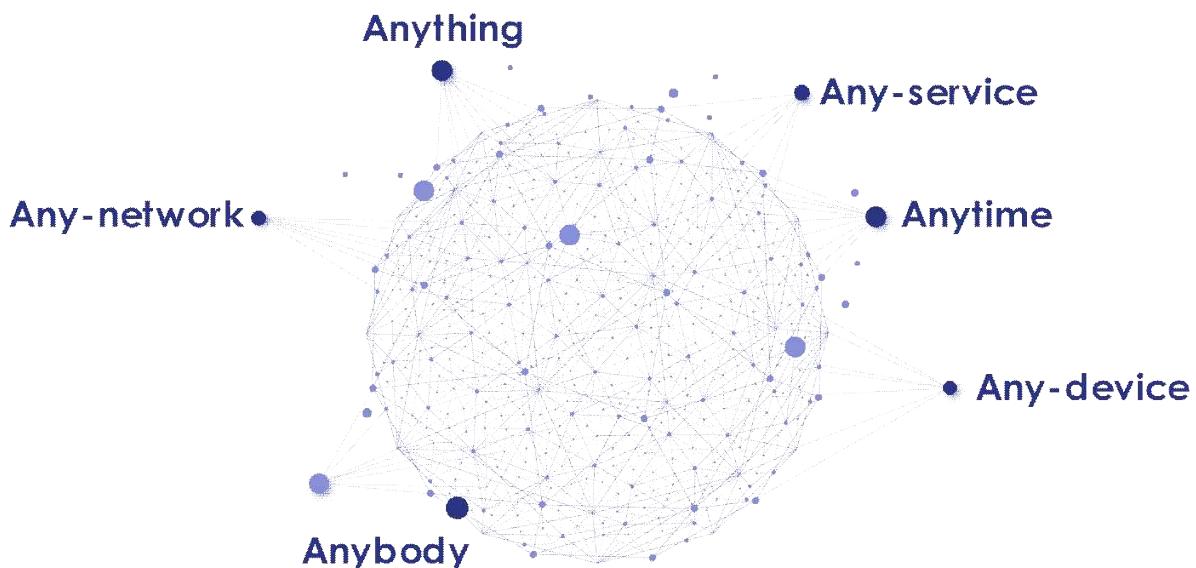
Starcro raises a total of 87,500 ETH through ICO. These funds are used as shown below.



Before and after ICO, details on the process of Starcro's registration and Know Your Customer (KYC) are updated on Starcro's official blog and website, showing how your information is securely registered and verified.

## The Change Starcro Will Bring

Starcro is a blockchain platform that provides a variety of services that can be accessed on any device, anytime, anywhere, by anyone.



First, Starcro has changed the typical proof system. The core values of blockchain include connection, sharing, and expansion. Blockchain mechanisms such as consensus algorithms, joining methods, programs, mining pools, etc. appear complicated to the public. Users can easily participate in the system if the joining process can be completed through a messenger application or smart phone/PC game. They only need to send texts, voice messages, and files without Googling for a manual written by previous participants. Likewise, an understanding of algorithms such as PoW or PoS is not needed.

Second, Starcro has changed the reward method. Normally, it is essential for users to be directly involved in verification or consensus processes to get rewards and/or they must receive these rewards via trade exchange platforms and P2P transactions. Starcro, on the other hand, offers a content distribution platform that provides XSC without direct involvement in the consensus process or any significant costs. Starcro's live payment and transaction platform provides a space for content creators or curators to manage content, distribute their work, and get XSC rewards accordingly. Therefore, in addition to direct participation as required for block mining and consensus mechanisms, the Starcro platform implements a rewards system that allows many users to understand and actively take part in its program.

Now, people and things around the world are becoming connected at a different level. It is important to emphasize that things can connect to each other independent of human involvement. Strengthening and fostering this connection is the core value of the Fourth Industrial Revolution, and these connections and associations are at the heart of Starcro's platform.

Starcro provides a decentralized, democratic platform for rewards and service sharing through top-notch blockchain technology.

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