

# **POWERING THE KARMACONOMY**

## **KARMASHIP TECHNICAL BRIEF**

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# **I. PREFACE**

The goal of this paper is to give a brief explanation into the technical aspects behind Karmaship and what ideally in the end we aim to achieve with this new technology. This is not an official white paper by any means nor is anything in here concrete or set in stone. This is merely conceptual in design and written for the developing Karmex blockchain and the Karmaship team as well as any private investors seeking more information about the projects. As development matures, aspects of this document will change and grow per the needs of the development teams, with the end goal focused on creating the first successful dApp for the emerging Karmex distributed ecosystem.

## **VISION**

### **WHAT DOES KARMASHIP AIM TO BE?**

The Karmaship team aims to create a truly decentralized peer-to-peer (P2P) community-based blockchain protocol and ecosystem that incentivizes good community behavior through karmic Proof Of Experience. This ecosystem, called Karmaship will reside on the Karmix blockchain, a decentralized and open-source protocol designed specifically for this new experience-based fair economy - or Karmaconomy.

## **II. THE KARMACONOMY**

An economy based on rewarding positive interactions and experiences, the Karmaconomy is the core philosophy behind Karmaship. In this new experience-based economy, positive interactions & experiences in the real-world have economic merit and are what drive the market vs the current capitalistic economy model which is completely controlled by supply and demand and access to capital.

Because the Karmaconomy relies on personal interaction and real-world engagement, it stimulates community activity and financial inclusion. It serves as a powerful foe to the ever-increasing technocracy that divides & separates mankind into a isolated state, with a virtual reality-driven Matrix world as its goal. With blockchain technology, cutting-edge mesh

networking, DAO governance and the Proof Of Experience protocol, Karmaship will allow humans to embrace open-source technology for the good of their communities and for the evolution of the species.

## **KARMEX**

In the Karmaconomy every user's positive activity and participation generates opportunity in the form of Karmex (KMX). KMX are the token for the economy and serve as its transactional currency as well. Later in this paper the initial distribution strategy for Karmex will be explained in full detail. As of now, no ICO is planned.

Because the Karmaconomy will be using Karmex to transact on a daily basis, the coin must be easily accessible and fast with near zero fees while maintaining the right amount of inflation to spur commerce. With deflationary coins like Bitcoin and Litecoin, users are more apt to hold on to the coin as a long term investment. The goal of Karmaship is to motivate community activity and growth into the Karmaconomy which means the coin needs to be spent. This is why Karmex is both mined and 'gathered' and has an infinite supply with a set annual inflation rate of 4%.

## **THE KARMASHIP DAPP**

The Karmaship dApp will work on top of the Karmex blockchain and be the central ecosystem for the new Karmaconomy. While the initial focus market will be the lifestyle event space, the core technology will be beneficial to any experiential market with opportunity to disrupt everything from live events of any kind to instructional classes, movie premiers, video gaming, shopping, amusement parks and so much more. Really, anything that can be deemed an 'experience' can be used with the Karmaship dApp!

The vision for decentralized social engagement within Karmaship is powerful and expansive. The dApp is being built with social interaction as one of the forefront priorities, implementing new technologies and a revolutionary new decentralized blockchain infrastructure to ensure privacy and security while at the same time allowing for the freedom to share and transact in an open and honest way. Most importantly though, Karmaship is being engineered to be highly entertaining and fun to use.

The driving factor of social media platforms like Facebook and Instagram is the endorphin rush of social engagement. Receiving likes and comments for posts as a sign of social acceptance has become a daily reality in the new social media-driven world we live in. While often times shallow and conceited, this system has been criticized by its own founders as a caustic addiction that can degrade its users and denigrate the culture. Karmaship aims to reach higher by using the core tenants of the Karmaconomy as its backbone for social engagement. By setting value to positive social engagement, Karmaship strives to bring the culture back into positive real world interactions. Social media is here to stay, lets take it higher!

## **THE SHARED EXPERIENCE ECOSYSTEM**

Since the entire Karmaconomy is based on experiences, there needs to be a vehicle and defined rules in which these experiences are created and engaged with. This is where Karmaship comes into action. Within Karmaship, there are 2 designations of individuals: Creators & Experiencers.

### **EXPERIENCERS**

Each Karmaship account is limited to 1 public address and its coinciding public profile Experiencer alias. Each Experiencer alias is unique and is used to perform all Experiencer functions within the blockchain ecosystem. The state associated with each account includes the following items:

- Account balance (in KMX)
- Number of gathered blocks
- Current number of Karma Experience (KEX)
- Current Open Experience tickets (multisig accounts)
- Current Node status (online or connected to online node)
- Friend Address Book
- PoCX Mining Attributes Time Of Inception and Block Generation Count
- PoCX Mining Plot Encryption Key

Experiencers can buy into or access free Experiences and receive Karma Experience or KEX through the new protocol, Proof Of Experience. There is no limit into how many Experiences a user can buy into however there are limits pertaining to how many times they can buy into one specific Experience. This is to protect the ecosystem against ticket fraud or event manipulation.

Karmaship may implement some sort of referral system down the road where any Experienter who refers a new user who ends up buying into an Experience gets a KMX percentage.

An Experienter is defined by their public profile ID and alias so everyone is an Experienter but not everyone is a Creator. Karmaship allows for only one address per wallet, thus promoting the use of a single profile within the ecosystem. While users can setup multiple wallets they are not incentivized to spread out their Karma Experience so if interested in benefiting in the Karmaconomy will be focused on building their singular wallet profile. This profile of course can be used across multiple wallets and devices. By maintaining this approach, an ecosystem based around trusted actors is more approachable, since identity will matter, even if it is an alias. Furthermore, the Karmaship community will incorporate a number of social mandates and operations that will further the Karmaconomy infrastructure and growth.

## **CREATORS**

Creators are any user who has created an Experience on the blockchain. We will get into Experiences shortly but basically Creators are defined by the Experience issued to the community. The only gateway into creating an Experience is cost in KMX. Currently the cost to create a new Experience is 100 KMX but that is likely to change as we define and finalize the Karmaconomy KMX token supply. Creators cannot buy into their own Experience.

## **TRUSTED CREATORS**

Any Creator can also become Trusted Creator if they meet the minimum number of created validated Experiences and use a VPS to run a specific kind of Masternode. The benefit to becoming a Trusted Creator is that there is no cost to create Experiences. Furthermore, Trusted Creators can be used to authenticate Mining nodes time on the network. (More on Nodes In The Network Section)

## **EXPERIENCE ASSETS**

When an Experienter decides to provide an Experience to the Karmaconomy, they must create an Experience Asset which is represented in the form of an Experience Ticket that they can give a custom name. This is done within the Karmaship application or KarmaLite Wallet and requires 100 KMX to initiate. Once the Experience creates this asset they become a Creator and have power to set the parameters for the Experience. Karmaship will allow Creators to define the value of the asset ticket in terms of a local currency or precious metal like gold or

silver. (They can even make the Experience Asset free.) By pegging the asset ticket to one of these currency classes, the Creator can maintain a relative price and value no matter the fluctuation of KMX price. This is crucial for something like a large scale event where many actors are involved. It allows for a consensus on value that is more grounded in traditional terms vendors and partners can understand while also allowing the KMX market to breath and fluctuate in a way that is attractive to crypto investors who enjoy volatility.

When an Experience Asset is created and launched by a Creator, it is either publicly or privately available on the Experience marketplace. This marketplace is accessible to all Experiencers where, based on the ticket value set forth by the Creator, Experiencers can buy into the Experience Asset with their KMX. As Experiencers buy, the value of the new asset ticket can go up or down based on supply and demand (or the Creator can choose to keep the cost 'flat'.) This traditional free market system is essential to the growth opportunity for Creators but is also balanced by the fact that KMX is used as the purchasing currency. Since KMX is gained through Proof Of Experience and fair mining protocols open to all, it allows for even and equal access to these Experiences in a way not currently available in traditional fiat-based or other alternative capitalistic markets.

## **CREATOR MULTISIG VALIDATION - THE KARMA TICKET AGENTS**

Creators are also defined as a multisig account which will play into the validation of Proof Of Experience. Whenever a new Experience Ticket is purchased it is also wrapped within a multisig transaction. This has a multitude of purposes. For one, this allows larger institutions or groups the ability to democratically run and manage Experiences. Before an Experience is initialized into an asset by a group of Creators, a  $\frac{3}{4}$  majority must sign off on it.

Most importantly though, the use of multisig and unique Experience Ticket QR codes gives Karmaship the ability to validate physical presence at an experience by having a cosignatory multisig account scan the unique QR ticket codes at the event. Cosignatory accounts serve as an additional layer of security against subversive Creators gaming the system. These 'Ticket Agents' provide an important role in servicing the Experience economy and are rewarded for processing each ticket. When the QR code is scanned the ticket Agent signs off on the multisig transaction, completing the proof of Experience and adding a specific quantity of tokens called Karma Experience or KEX to the user's account on the blockchain. This can only be signed off on and added to the blockchain if the original corresponding multisig transaction from the initial purchase is on the blockchain as well, thus making it 'multi-sig'. As a reward, the Karma Ticket Agent receives a small fraction of the KEX for being a part of the multisig validation experience.



## THE KEX TOKEN

Any time an Experencer buys into an Experience Asset they receive the asset's ticket which has specific value based on the Experience market or price set by the Creator. This asset can be traded or sold by the Experencer but since each Experencer is limited to only one purchase into any single Experience they will only be able to trade or sell once. Besides avoiding various forms of system gaming, this policy aims to make scalping and other forms of ticket price manipulation more difficult to perform.

Once the Experience Ticket is owned by an Experience it is stored in the wallet and is associated with a unique QR code. This code will need to be scanned by a Ticket Agent to validate Proof Of Experience. Once this is done, the ticket is converted to Karma Experience tokens or KEX. The amount of KEX earned is decided upon a number of factors related to the Experience.

KEX amount factors are not finalized yet but here are the current parameters related to the Experience:

1. Cost in KMX of Experience ticket
2. Quantity of Experiencers purchased within Experience asset
3. Cumulative Quality of Experiencers who have purchased into the Experience asset (calculated by their PoX score)
4. Percent of change in value of Experience ticket vs initial purchase, negative or positive.
5. Quantity of Previous Experiences created by same Creator

The goal with the KEX token is to both qualify and quantify the value of the Experience in a way that will properly reward the correct amount of 'Experience points' for the Experencer. In essence, KEX are the tokenized representation of the Experience itself. The more KEX an Experencer receives the greater valuation of that particular Experience. KEX is purely used for the Proof Of Experience protocol and not to be sold or traded. Once processed as a transaction on the blockchain it is used to compute the most up to date PoX value of the Experencer and then burned.

### **III. THE PROOF OF EXPERIENCE PROTOCOL**

The central driving force behind Karmaship & the Karmaconomy is the Proof Of Experience (PoX) protocol. Without this, centralization would be required to achieve the rewards and consensus mechanisms needed to connect real-world experience validation to a virtual marketplace and shared economy on the blockchain. What Proof Of Experience does is allow for the blockchain alone to validate and reward actors for engaging in an experience in person.

#### **PROOF OF WORK**

By using the validation of an experience, PoX attempts to solve a lot of the issues established distributed consensus mechanisms currently face. Proof of Work, as created by Bitcoin founder Satoshi Nakamoto, was the first way in which the public ledger consensus could be maintained by relying on the computational processing power of machines, called 'miners'. A brilliant design of its time, it held on to the concept that the energy expense needed to out-perform 51% of the network's miners would deter any type of attack. For the most part, as in the case of Bitcoin, this has worked but at a great expense. The mining cost has had its repercussions including environmental impact and centralization via mining consortiums who now hold most of the 'hash power' which determines consensus. Still, even with these issues, PoW continues to be a dominant and reliable form of consensus and has been tweaked and altered over the years to make it more fair and less energy dependent.

#### **PROOF OF STAKE**

Around 2013, blockchain 2.0 came about with the emergence of Proof Of Stake, a new protocol that factored in the quantity of currency 'staked' by full nodes to generate new blocks and maintain consensus. The theory here was that those who hold a lot of coin have it in their best interest to maintain true consensus and keep the chain honest since they have the most at stake. Furthermore, it would typically require someone with over 51% ownership of the entire currency to fork the chain or double spend so as long as the economy is distributed it is safe. However, like its PoW successor, PoS also has issues with centralization as it tends to reward the upper percent who own most of the coin and it has a number of security issues (like the nothing at stake problem) that in some ways make it more risky than its predecessor, PoW. A lot of fabulous research has been done on this with many new variations on PoS coming out.

We highly recommend reading this paper on the Ethereum Github which covers all aspects of Proof Of Stake:

<https://github.com/ethereum/wiki/wiki/Proof-of-Stake-FAQ#what-would-the-equivalent-of-a-51-attack-against-casper-look-like>

## **PROOF OF IMPORTANCE**

Proof of Importance (PoI), as developed and used by the NEM blockchain in 2015, was an evolution of PoS to factor in a more holistic picture of who the useful users on the network are for maintaining consensus. Besides quantity of coin, PoI also factors in the amount of coin spent by the user and a 'trust score' as determined by a separate purpose-designed system to factor in how much weight a node has to harvest blocks. PoI is unique in that it rewards users that actually spend the coin. It also provides additional security with its trust factors and answers many of the issues that come with PoS's nothing at stake problem. We will be using aspects of PoI within the Proof Of Experience protocol to strengthen these very things.

## **THE KARMA-CONSENSUS: PROOF OF EXPERIENCE (PoX)**

We believe that Proof Of Experience will solve many of the environmental, security and centralization issues of both PoW & PoS. Through a complex algorithm that factors in the user's current KEX quantity, node trust score and Proof Of Importance, PoX plays the biggest factor into how the Karmex blockchain maintains consensus. Every time a user validates the Experience they accessed or purchased in the Experience market, they receive a matching amount of KEX. As mentioned above, the amount of KEX can vary depending on a number of factors regarding the size and weight of the specific experience. This is all computed within the algorithm and then applied to the Experiencers' profile blockchain address. As the amount of KEX increases, the greater the weight of the Experiencer on the chain, thus increasing their probability to both Gather and Mine KMX. In this way, PoX forms the basis for heuristic evaluation of the most experienced and qualified accounts in the Karmaconomy.

## **CUMULATIVE KEX AMOUNT - TEQ**

Every time a new PoX mined block is Gathered, all current cumulative KEX amounts are added to the Total Experience Quantity or (TEQ) of the Experiencer account and then burned. TEQ is responsible for 60% of total PoX score.

## **TRUST SCORE**

Karmaship will implement a P2P reputation system made popular by the NEM network which is similar to the EigenTrust++ algorithm. Through this reputation system, the network can assign a trust value to each user. This will count as 20% of the overall PoX score calculation. This Trust score alone has faults because malicious nodes could collude and report low trust values for honest nodes and high trust values for dishonest nodes. However, thanks to PoX validation at Experiences, malicious nodes would be lacking any real KEX unless acting through an actual malicious actor at the Experience. Due to the nature of the Experience validation which requires physical presence or real-time activation, there is little incentive to expend the energy needed to game the validation through live human actors. However, in case of malicious actors working within the ecosystem, incentive or not, the trust score system acts as a secondary level of security

For more detailed info on NEM's Trust Score please see their technical brief here:  
[https://nem.io/NEM\\_techRef.pdf](https://nem.io/NEM_techRef.pdf)

## **PROOF OF IMPORTANCE**

As mentioned above, aspects of PoI are used within PoX to both increase consensus fairness and overall network security while adding a component of transaction stimulus to the Karmaconomy. One of the main factors in PoI is the amount of coin spent by the user account. The benefit of this is that it rewards using the KMX currency for things besides buying into Experiences. Because Karmaship aims to be its own fully enclosed economy with KMX as its transactional currency, this is an important stimulus for the growth of the economy.

NEM requires 10,000 vested XEM to qualify for PoI. This is done to secure the economy from spam nodes while driving economic growth through purchase of its coin. Like most Proof Of Stake blockchain networks, the biggest criticism of this vested interest is that it maintains a degree of centralization by rewarding those with large caches of coin. Karmaship counters this with its KEX token which can only be gained through validated Experiences.

PoI will count as 20% of the overall PoX score.

## **CALCULATING FINAL EXPERIENCE SCORES**

The Experience score is calculated as follows:

100% Score = 60% TEQ (cumulative amount of KEX) + 20% Trust Score + 20% PoI score

Calculated together, the cumulative Experience points, overall network trust score and evaluation of activity through spending KMX form the basis for total evaluation of the overall 'experience weight' of accounts in the Karmaconomy. The end goal here is to validate that real human actors are the ones deciding the consensus. This takes out a lot of the potential for automated hacks and attacks by bots and fake wallets. Also, since experience cannot be arbitrarily manipulated or gamed, experience scores are useful for more than just consensus. Because they all sum to unity, they represent a finite quantity that forms the overall trust factor for the community at large which is, in effect trustless in nature. This allows for anonymous actors to safely and securely interact and transact with each other without fear of spam or malicious bots as it is very difficult to create multiple pseudonymous identities.

## **CONSENSUS HARDENING WITH PoCX**

Besides the standard PoX consensus mechanism built into the Karmex blockchain, Karmaship will also engage miners doing a form of PoW called PoCX to add more security, decentralization and interest into the Karmaconomy. Creating a hybrid of the evolved PoW protocol made popular by Burst Coin called Proof Of Capacity (PoC), Karmaship plans to implement one of the most fair and energy-efficient mining algorithms the world has yet to see. Using PoX & PoI as an added security feature, PoCX will allow for those users with experience and transactions to mine the most blocks and create new KMX for the growth of the economy. PoCX is so lightweight and energy efficient it can be done with something as simple as a Raspberry Pi.

PoCX is conceptually proof of capacity mining of the blockchain. By proving your wallet is in consensus with all trusted clusters (Supernodes) which serve the entire blockchain to help load balance the entire network. Requiring miners to hold the chain and be a node the network will be more robust. This will also help clusters defeat any warp time across the network due to latency as new clusters bond to a Julian Date that will measure ping vs code and sync as an atomic automation.

A plot will be created for a wallet and the wallet will encrypt the plot at the specified block of inception. There is no pool mining yet the encryption is like setting your wallet as reward

recipient in Burst. The miner will always need to refer to this encryption on the chain which acts as an encryption zipper to open their plot and submit a timeline for their mining at any specific block in the future. If the miner can't hit the 10 minute timeline they won't be able to submit Karma Time. This encryption also holds their starting point to show how long they have been mining, it will be used as a variable.

All miners will need to have downloaded the entire blockchain which will contain Nonces that equal 10 minutes or the network timeline consensus, then they can submit Karma Time which would be how long it would take them to find a block over 10 minutes. The miners submit in this 10 minute round and the best Karma Time on the network is taken at 10 minutes exactly. This also turns the blockchain into an Atomic clock and calendar for helping smart contracts execute.

A plot will have free Nonces that are available to be sent to the chain if the wallet should win a block. As the wallet finds a block it gives the Nonce and now is short one Nonce which will not allow a winning wallet to mine the next block since it can not hit the 10 minute timeline. Now the network can not be forked by an individual or team of miners.

As its Nonce is confirmed it will be allowed to make another Nonce only to sync to the next block and then submit again. This next submission will have a very high Karma Time since it had just found a block. This is another variable to be combined into the PoCX expression. All of these factors will be within a wallet address and not encrypted so that Masternodes could also do the math and confirm that this wallet was online submitting and held the best timeline compared to all other miners on the network at that specific time. Again a miner can only submit if they hold all of the Nonces that equal 10 minutes which are embedded in the blockchain.

Block rewards can follow any type of coinbase payment and could mimic Bitcoin to now give miners the "Experience" of Mining Bitcoin. Many people never had the chance to mine Bitcoin and now Karma may endear itself to people as a chance. Since they can get their miner synced before others and get in line. It will be compared to very high difficulty with millions of people mining simultaneously. There are only so many blocks to win per day, but as people may turn off their miners or internet outages, there will always be other variables introduced that may benefit those who keep their miners online constantly.

## IV. KARMEX BLOCKS & BLOCKCHAIN

The central backbone to every cryptocurrency is a public ledger called the blockchain which links blocks together. Each Karmex block can hold up to 200 transactions and stacks on top of each other in an immutable way that is unforkable after every 10 minutes. Karmaship calls the first block in the chain the genesis experience block.

Each block consists of the following:

1. The block number
2. The block time stamp
3. The public key of the gatherer or miner
4. The signatures of the block data
5. The previous block hash
6. The current nonce for PoC mining
7. The generation hash
8. The block height
9. The list of transactions

### EXPERIENCE GATHERING - KARMA STAKING

Experience Gathering acts as one of 2 main consensus mechanisms on the Karmex blockchain. Based on their PoX score, Experiencer nodes are rewarded for hosting the entire blockchain through gathering. The chosen account to gather all the current transactions into the next block gets the fees from those transactions. This incentivizes them to add as many transactions to the block as possible. They are also rewarded 1 KMX

Any account with a PoX score greater than 0 is eligible to gather. To check if an account is allowed to create a new block at a specific network time, the following variables are calculated:

$h = H$  (generation hash of previous block, public key of account)

$t$  = time in seconds since last block

$e = 8999999999 \times$  (experience score of account)

$d$  = difficulty for new block

(And then math here...)

The target block time is 15 secs or 4 blocks per minute.

## **DELEGATED EXPERIENCE GATHERING**

For those Experienter accounts that choose not to run a full node (have the entire blockchain downloaded on their device) they can still gather via Delegated Experience Gathering. Trusted nodes on the network that have passed a certain threshold of experience and importance can be connected by offline experiencers. This allows for gathering via the mobile Karmaship dApp so users can use their experience to earn KMX while at events.

## **V. THE KARMASHIP NETWORK**

The Karmaship network is a peer-to-peer trustless network of anonymous nodes that are validated and continually evaluated via the Proof Of Experience protocol. In order to strengthen network security and scalability, it employs a number of different specialized nodes to verify transactions, run consensus and perform other important tasks for the Karmaconomy. Each node type has different rewards settings and on-chain responsibilities.

### **EXPERIENTER NODES**

Any KMX holder running a wallet with the full blockchain who has earned enough Experience Points to qualify as an Experienter. Experienter nodes compete to earn the most experience points (via Proof Of Experience) so they can Gather the most KMX. These nodes play a crucial role in decentralization and network stability, especially leading up to and after large events when a great majority is back home running their full Experienter Node on their desktop.

Any other users not qualifying as an Experienter Node can still Gather transactions via Delegated Gathering. Any user running the KarmaLite Wallet on their phone or computer can connect to a local Experienter Node or Event Supernode and get their place in line for Gathering transactions and winning fees in KMX.

Experienter Nodes also act as the central nervous system for the entire experience-based network. They are incentivized to attend experiences and transact KMX, propelling the Karmaconomy forward.



## **CREATOR MASTERNODES**

Creators who qualify for a masternode have performed to certain standards set by the community and are rewarded for being harmonious and beneficial to the Karmaconomy. In order to qualify for a Creator Masternode and become a Trusted Creator, a Creator must validate over 1 million in KEX through the experiences they have created, stake 500 KMX and, after these prerequisites, run a VPS hosting the blockchain. The benefit of running a Creator Masternode is that there are no fees to create new Experiences. Larger enterprise Creators will find great value in this and also help support the network by running a super stable full node that is always on and capable of validating PoCX node's network times as well.

## **EVENT SUPERNODES**

Karmex understands that certain event organizers would like to gain higher returns of KMX in exchange for their heavy investment into the ecosystem. In light of this, we will be creating the Event Supernode. This node will require a higher initial deposit and specific hardware to run, creating a robust backbone of support for the network, especially for when large scale events are in remote areas where Experiencer Nodes won't be as active. In exchange for this cost and service, Supernodes will act as central hubs for Delegated Gathering, where they will receive payouts from all the transaction fees in the ecosystem. The more experiencers that attach to them, the more rewards they can earn. Event organizers can also choose to market and highlight these hardware nodes with artistic designs and make them a visual 'totem' for the Karmaconomy at their experiences.

In exchange for the ability to do Delegated Gathering, there will be a 30 day delay before the node can be broken. Furthermore, the creation of a supernode will result in a permanent burn of the coins used to establish the node. This means that after the purchase of the Supernode, it will take an extended amount of time to make back the initial deposit once the event is over. These two innovations will prevent the opportunistic dumping of high token volumes when price targets are reached. This feature will essentially limit Supernodes to those who believe in the project and are willing to support it with their continual service of network security.

## **KARMA TICKET AGENT SERVICENODES**

Providing the important task of validating user experience, Karma Ticket Agents must run a simple app on their mobile device to act as a servicenode for the network. Their only task is to validate the multisign transaction and send to the blockchain for Proof of Experience. In doing

this they receive rewards in the form of KEX and thus a lot of experience points for gathering or mining.

## **ATM SERVICENODES**

Essentially static running nodes at events or places of business, these provide a number of systemic tasks including possible validation of Proof Of Experience (if no Karma Ticket Agent is avail) as well as increasing liquidity at events through atomic swaps of other major cryptocurrencies including Bitcoin, Litecoin and Ethereum. ATM Servicenodes receive small fees for providing their services.

## **THE KARMAMESH NETWORK**

Karmaship believes that the future success of distributed networks will rely on the ability of the community to independently connect without the need of a ISP or telecommunications company providing the connection. Through mesh networking, we can achieve that thanks to low energy bluetooth technology. The development of this network will play a massive role in the success of Karmaship in the long run as it will allow for more remote communities and events to utilize the Karmaconomy, even without typical internet connectivity.

Besides bringing the freedom of independent network functionality, KarmaMesh will strengthen the overall blockchain security for PoX. In a mesh network, we can verify physical presence due to the nature of the weak bluetooth signal and thus can use this data to further validate the experience of a user. Karmaship plans on updating the PoX algorithm to include the mesh networking data once the network has been fully tested and implemented.

## **VI. THE FUTURE OF KARMASHIP**

Karmaship will act as the flagship product for the Karmex blockchain but its future really lies in the growth and stability of the community embracing it. As a fully open-source public blockchain utility, Karmex will be open to any developers interested in using the Proof Of Experience system for their own application needs. There will be a public git accessible to all and multiple avenues of support and communication including Discord and Telegram channels.

As the community and user base grows, Karmaship will look towards embracing additional new technologies to support the growth of the DApp and the ecosystem at large including virtual and augmented reality, offline transaction processing, clean energy integration and so much more. The ability to take Proof Of Experience to more virtual and digital worlds is a goal as well as pushing cutting-edge clean energy technologies for the mining side.

## **VII. FUNDING & LAUNCHING THE KARMACONOMY**

In today's cryptocurrency market, there is an unfortunate negative stigma surrounding the launch of new technologies thanks to the ICO boom and its inherent flaws. While we support the philosophy behind the concept, we are also aware of the realities and corruptive nature of this fundraising process. In light of this and thanks to the nature of the Karmaconomy, Karmaship is taking a different route to fund and launch the new economy.

### **Initial Private Funding**

As a testament to the founder's belief in Karmaship, they are funding the initial project scope themselves. In exchange for this, each founder will receive coin during the Genesis Event for a Supernode. Because coin is burned when buying a Supernode, the founders initial investment returns are going directly back into the economy. Furthermore, as an added assurance, all employee coin will have a vesting period of 36 months with a maximum withdrawal of 10% per quarter.

### **The Karmaship DEX And Third Party Exchange Policy**

Karmaship plans to build its own DEX (decentralized exchange) directly into its dApp, allowing users to freely exchange between major cryptocurrencies like Bitcoin and Ethereum for KMX. Karmaship has no plans to use any third party exchanges for trading KMX. By keeping the coin out of the hands of day traders and bots, the Karmaship team hopes to create a more stable coin for daily transactions. Furthermore, ATMs will be made available at major Karmaship experiences, allowing for fiat to KMX exchange. Karmaship is also open to work with payment partners for facilitating fiat gateways inside the DEX.

## **The Genesis Event - Launching The Karmaconomy**

To launch the initial block for the Karmaconomy, the Karmaship team will host a “Genesis Event” where a certain number of KMX will be minted and 5% airdropped to attendees of the event. The remaining KMX will be reserved for future experience airdrops. This VIP event will be for all Karmaship team members, community leaders, cultural experience producers, artists, influencers, creatives and fans of the project. This will be an evenly distributed free airdrop to every attendee who validates their attendance of the event on Karmaship. This genesis event will allow for the initial economy to take off in the hands of those individuals who care about its growth. They can start PoCX Mining and Experience Gathering if they choose to run an Experienter Node and can become creators of new experiences.

After this initial private Genesis Event, Karmaship will host 3 public airdrop events culminating in a large public crowdfunding event hosted by Karmaship. This large event will most likely be a 2-3 day festival and will be the major public funding round for the Karmaconomy. With these first few public events, attendees will cover the event ticket cost and receive airdropped coin upon ticket validation. Tentatively planned, the first public event will airdrop another 5% of KMX from the initial minting fund and the second event, 10%. The final public funding event will airdrop 50% more, leaving a final 30% of KMX for future airdrop events.

## **VIII. THE KARMACONOMY FOUNDATION**

The Karmaconomy Foundation is a non-profit organization set up to manage and run the public Karmex blockchain. Specific profits from the mining of Karmex will be set aside for the Karmaconomy Foundation as well as for specific non-profit charities and causes as voted by the community. The goal is to turn the Foundation into a full functioning DAO run by a council of public representatives. These reps will be voted in by the community once a year. Polls will be taken within the Karmaship community on a monthly basis and voted on by the council. These will cover everything from bounties for Karmaship improvements and new dApp development to marketing strategies and events.

You will find the foundation website at [www.karmaconomy.org](http://www.karmaconomy.org).