Revolutionizing Telecommunications: Karrier One - A Blockchain-Based Carrier-Grade Mobile Network for a Decentralized Future

Karrier One Global Networks Ltd.
Whitepaper v.1.0 (August 4th, 2023)

Abstract - In this whitepaper, we position blockchain as a groundbreaking innovation, reshaping the telecommunications sector and elevating it to a foundational element of society. We illustrate how the development of an adaptable, dependable, and functional decentralized telecom network contributes to a versatile landscape of connectivity, something we deem a critical necessity in our contemporary world. This document introduces Karrier One, an global carrier-grade mobile network that collaboratively functions with a blockchain. Importantly, this blockchain is managed by a Decentralized Autonomous Organization (DAO), a key determinant in the decision-making process for major factors like changes in network topology and protocol enhancements. The merger of Karrier One's novel governance structure with its decentralized characteristics uncovers a myriad of opportunities for a more sophisticated and sustainable telecom infrastructure.

1. Introduction

At present, there is an absence of a blockchain solution that aligns with telecommunication regulations, thereby creating a gap for forthcoming and existing Decentralized Wireless (DeWi) initiatives to leverage.

The current state of the DeWi landscape is characterized by fragmentation and suboptimal integration. Current DeWi networks are marred by inactive zones and limited utilization. To establish a globally relevant, carrier-grade telecommunications network, there is an imperative for different telecom equipment and providers to engage in seamless, smart contract-enabled communication. This proposition parallels traditional telecom providers utilizing roaming agreements to engineer efficient, comprehensive networks void of signal dead zones and exorbitant costs.

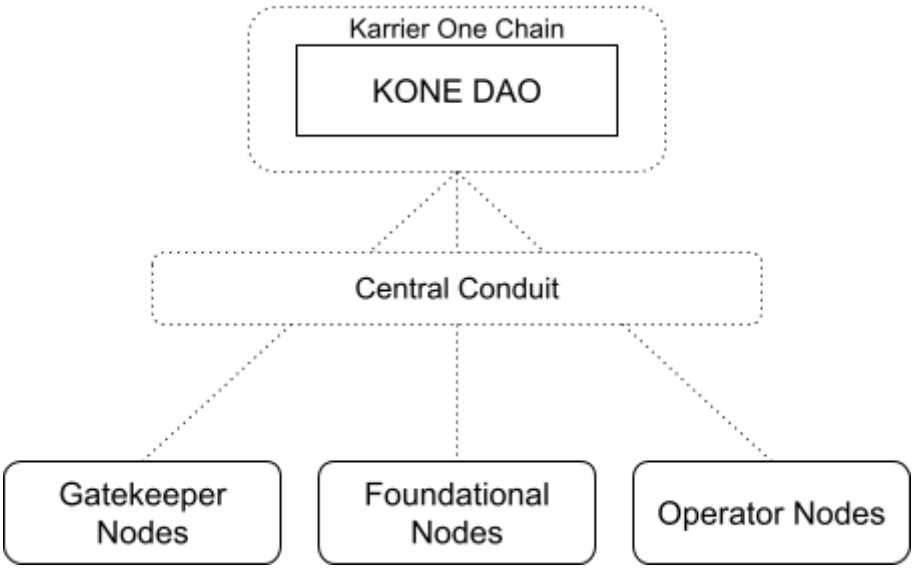
Incorporating a blockchain solution that is compliant with telecom regulations and compatible with the Ethereum Virtual Machine (EVM), other DeWi initiatives can access and leverage Karrier One's telecom equipment and infrastructure via smart contracts, mirroring the essence of roaming agreements.

Any project can explore the possibilities of developing, migrating, or bridging their token or solutions onto the Karrier One blockchain.

Note: This whitepaper signifies an ongoing project. Our commitment is to continually update this document to reflect our most recent developmental progress. Given the evolving and iterative nature of our development process, it's expected that the final code and implementation may not exactly match the representation in this document.

2. Network Overview

In order for Karrier One Chain to operate, a distributed network is established according to the following architecture.



Karrier One Protocol Architecture

2.1 The KONE DAO

The KONE DAO serves as the decentralized autonomous organization (DAO) that governs the Karrier One Chain. The KONE DAO acts as the essential logic storage for the Karrier One system, functioning like the system's central nervous system that ties all diverse types of nodes together. This decentralized system is charged with initiating protocol-level upgrades to consistently improve the Karrier One Chain. It achieves this through a model of liquid democracy where KONE ticket holders cast votes on proposals that guide the development of the Karrier One Chain. Once a proposal secures approval, it's implemented autonomously or through the central conduit.

The KONE DAO manages communication among all nodes and subsystems across the network. This DAO acts as a go-between and translator for the PNS module, telecom module, and blockchain. It also facilitates communication between Foundational Nodes, Gatekeeper Nodes, and Operator Nodes while interfacing with third-party applications. The primary responsibilities of this module include:

- Processing user registration and proposals

- Voting in and assigning Foundational Nodes, Gatekeeper Nodes, and Operator Nodes to the network
- Managing and recording different quality metrics in the blockchain
- Simplifying the complexity of the business logic for the rest of the system
- Enforcing rules and contracts set in the blockchain by the telecom module

The KONE DAO operates by allowing users to stake KONE governance tokens to create voting “Tickets”. Any user can create a Ticket, collectively representing the community's will, steered through algorithms. Tickets are similar to accounts where advance notice for withdrawals must be provided, with the duration of this notice period known as the "withdrawal delay". The voting power of Tickets and their claim to voting rewards is proportional to the amount of staked KONE. Tickets can vote either manually or automatically by following other tickets, illustrating the concept of liquid democracy. Tickets are considered Foundational Nodes.

The KONE DAO assures no single company, small group of developers, or node operators has undue influence or control over the network.

Ticket holders are engaged in a crypto economic game, where they are incentivized to vote for the approval or rejection of proposals, or to set up ticket followings that lead them to vote automatically in a manner most likely to increase the long-term value of the Karrier One Chain network.

2.2 Types of Nodes

The proposed network model is composed of three distinct node layers:

- Foundational Nodes - These nodes serve multiple functions including user identity, blockchain maintenance, inter-node communication, and facilitation of telecommunications services.
- Gatekeeper Nodes - These nodes supply comprehensive coverage and wireless access to end users.
- Operator Nodes - These nodes create a bridge to traditional telecommunications operators, ensuring seamless integration.

2.3 Foundational Nodes

The Foundational Nodes comprise multiple software modules that interact through a central conduit controlled by the KONE DAO. Other modules contribute various layers, including

- a identity (Phone Number System (PNS) module)
- a ledger (blockchain module)
- a communication (telecom module) layer

The Phone Number System (PNS) presents a mechanism that enables users to connect their phone number to their web3 wallet, thus generating a digital ID. This ID paves the way for users to send and receive funds, or even establish an identity anchored to their phone number ownership. While this service adds a fresh layer of functionality, it concurrently ensures that personal details about a specific user remain secluded from the Web3 Layer.

The blockchain module maintains a decentralized EVM compatible ledger that records all network transactions. For efficiency, privacy, and cost considerations, some transaction data is split between a public, anonymized ledger that connects to a private component housing all transaction details in an encrypted, distributed ledger.

The telecom module oversees the network's communication functions. Although Foundational Nodes can be located anywhere around the globe, the network's traffic routing tends to be biased towards nearer nodes to boost service quality and performance.

The PNS module interfaces with the decentralized digital identity solution to oversee user digital identities, including

- identity registration
- credential management
- authentication.

The blockchain module provides security, immutability, transparency, and privacy. Key functions of the blockchain include:

- Managing financial ledgers that record user account balances and transactions
- Overseeing reward mechanisms for nodes to ensure automatic payments once smart contract conditions are met
- EVM (Ethereum Virtual Machine) Compatibility

The Telecommunications Module plays a crucial role within the comprehensive architectural design, taking charge of several vital operations:

- Call Signaling - Facilitates the setup and teardown of calls within the signaling layer.
- Media Routing - Handles the media layer for voice and video communications during calls.
- Message Routing - Manages the messaging layer for the transmission of Peer-to-Peer (P2P) and Short Message Service (SMS) messages.
- Service Management - Processes service requests.
- Quality of Service (QoS) Monitoring - Conducts analysis and real-time tracking of network quality, including metrics like Mean Opinion Score, jitter, packet loss, etc.
- Self-Healing Network - Applies analysis and algorithms for network operation and updates of distributed routing tables.
- Distributed Hash Tables for Nodes - Maintains node address tables essential for routing.

2.4 Gatekeeper Nodes

Gatekeeper Nodes are characterized as the nodes providing the access layer, thereby facilitating network access. Depending on capacity and location needs, Gatekeeper Nodes can be deployed in various hardware configurations, serving anything from a single user to an entire community. Regardless of the hardware configuration, the software module provides the same fundamental functionality.

Each user seeking to connect to the network must first pass through a Gatekeeper Node. In an ongoing manner, Gatekeeper Nodes relay critical information to the mobile core, enabling real-time evaluation of performance metrics and facilitating instantaneous accounting for each active session. Gatekeeper Nodes provide coverage for a specific area and are positioned in places where connectivity is needed.

2.5 Operator Nodes

The Operator Nodes function as a bridge to traditional telecommunications networks, managing protocol translations, media transcoding, and directing traffic to these networks. A minimum of one Operator Node per country is required to ensure service provision. Operators of these nodes must comply with local regulations and possess the requisite licenses to administer the service.

3. Tokenomics

The token economy has been thoughtfully constructed with a variety of incentives to stimulate participants to expand the network and deliver coverage in regions where it's currently inadequate or the service is subpar. Our approach deploys an incentive model where operators garner rewards for offering high-quality services and enhancing coverage, which aligns with the sought-after outcomes.

Central to this incentive model is a utility token known as KONE. This digital token is distributed with the intent of enabling network participants to offer a service on the network, and to be appropriately rewarded for their contributions.

The fundamental function of the KONE Token is to stimulate node operators that run their own nodes and token holders interested in backing the network operation through its decentralized governance model. There's a capped total supply of 3 billion KONE tokens, with only a fraction expected to be in circulation at the network's inception.

The network incentives can be broken down as follows:

Transaction Fees: These are charged in KONE and are remitted to node operators. The cumulative revenues of node operators will correspond to the aggregate network fees on Karrier One Chain. Stakers will have the option to delegate their tickets to their preferred node operators and, in return, receive a portion of the transaction fees.

Gatekeeper Rewards: A designated 8% of the overall KONE supply is reserved specifically for initial Gatekeeper Rewards, which are meant to stimulate the deployment of Gatekeeper nodes during the early stages of the network. During this period, rewards from coverage and usage might be considerably lower. The amount of KONE allocated to Gatekeepers will be a fixed sum, determined by The KONE DAO and based on a range of factors, such as the type of radio and the area of deployment. This setup aids in preserving a balance between risk and potential rewards for Gatekeeper Nodes throughout different stages of network maturity.

Inflation Rewards: A significant portion, 20%, of the total KONE supply is earmarked for inflation rewards, which will be divided between node operators. The rate of inflation will gradually decrease over time, ensuring that rewards are more substantial during the early stages of the network. The system is designed to reach zero inflation by the 20th year. This structure helps to maintain a balance between risk and reward for node operators at various stages of network maturity.

Other use cases of the KONE token include:

Governance: Token holders of KONE are empowered to cast their votes on Karrier One Improvement Proposals, which are instrumental in ensuring the enduring success of the Karrier One Protocol. Forthcoming proposals encapsulate a wide array of matters: introducing a service fee for transactions conducted within the protocol, altering the rate of the service fee, modifying the list of acceptable tokens for payments, broadening the protocol's reach to new blockchains, and setting the budget for a developer grant program, community contributor program, as well as both virtual and physical community events to foster ecosystem growth.

Supernet/Blockchain: Karrier One Supernet functions as an EVM-compatible chain, which facilitates a plethora of blockchain solutions, including smart contracts for billing agreements. Although the primary aim of Karrier One is to cater to DeWi/DePIN projects and solutions that will be developed on and make use of the Karrier One supernet, it is accessible to all. Activities related to the Karrier One Supernet, such as deploying smart contracts, NFTs, tokens, and managing fees, will necessitate the usage of KONE, akin to other layer 1 blockchains.

Payment for Creating PNS Profiles: KONE is designated as the default currency for transactions involving the purchase of PNS profiles that come with a premium phone number.

Payment for Transaction Fees in Karrier One Dashboard: Users can leverage KONE to settle charges and fees incurred within the Karrier One Dashboard/Wallet.

Leveraging a circular token economy, our platform increases in value as adoption widens and use-cases diversify

3.1 Incentives for Foundational Nodes

Foundational Node operators must obtain approval from The KONE DAO and need to lock a specific quantity of tokens to engage in the network. This initial quantity, determined as 100,000 tokens, is a variable embedded in the blockchain's inaugural parameters. Any anticipated modification to this parameter will be coordinated through The KONE DAO. KONE DAO votes in Foundational Node Operators, creating a global governing council of participants. Foundational Node Operators provide necessary resources to run the Karrier One Public Chain in exchange for tokens.

Token holders who are deficient in the necessary number of tokens or the requisite technical ability to run a node can delegate their KONE to a Ticket. Tickets are considered

Foundational Nodes that can vote on proposals to proportionately share in the rewards based on their stake. Each Foundational Node in the network proportionally distributes the network's rewards according to a range of factors.

Initially, rewards are accrued by creating blocks and committing them to the blockchain. These blocks not only contain the financial settlements associated with diverse network services but also metadata derived from these transactions.

Second, Ticket holders are compensated for their involvement in the KONE DAO and voting on proposals. Claim to voting rewards is proportional to the amount of locked KONE.

Third, node operators are compensated for their involvement in providing services to network users, like routing communication traffic (voice, SMS, etc.).

At scale, we anticipate thousands of public nodes joining to support the network's decentralized consensus and growth.

3.2 Node Selection

Foundational Nodes can be selected to perform two different types of operations, each with its own selection criteria:

Blockchain Operations: For blockchain-related tasks, selection is purely algorithm-based. The specifics of this consensus algorithm will be defined in a subsequent technical paper.

Telecommunications Operations: The selection criteria for these operations are dependent on the type of service being provided, as this determines which nodes are available for the service. Foundational Nodes declare the services they offer to the rest of the network. Initially, Foundational Nodes provide services such as:

- voice and SMS services.
- internet access services.

In the future, additional services may be offered following the same incentive structure.

3.3 Foundation Nodes Rewards

Foundation Nodes will receive appropriate rewards for each type of service they provide, as well as for block production. rewards will be distributed among the nodes selected to execute the service, with additional rewards allocated to those performing a more significant workload.

Block production rewards will comprise a fixed amount of KONE tokens.

3.4 Incentives for Operating Gatekeeper Nodes

The primary objective of providing incentives to Gatekeeper Node Operators is to facilitate mobile services in regions currently lacking this service. These incentives are directly tied to

the network's usage volume. Gatekeeper Nodes can also supplement capacity in areas that already have service, an action that benefits the network and thus, should be rewarded.

Each Gatekeeper Node on the network proportionally shares the network's rewards based on several factors. Rewards are determined based on the volume of users and traffic processed by the node. Additional rewards are secured based on the Quality of Service (QoS) gauged using metrics defined under the Node Quality Grading System. These QoS metrics are fine-tuned with a quality score provided by network users. This allows for more adaptable service provision, as some users may tolerate lower bandwidth services or intermittent services if it means they can access the wireless services in remote, otherwise restricted areas.

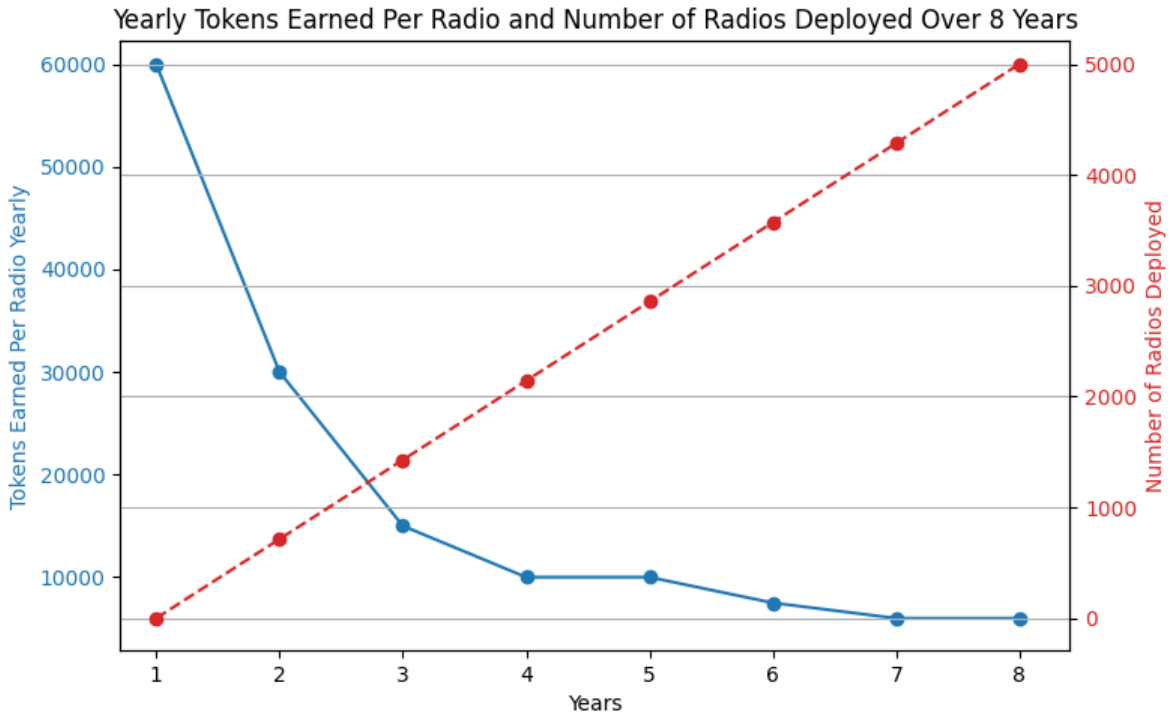
Besides the reward mechanism grounded in network utilization, an additional 240 million KONE tokens, constituting 8% of the total allocation, are earmarked for distribution over the first eight years, at an annual rate of 30 million tokens. This allocation strategy is designed to galvanize the initial deployment of 5000 radio installations.

On an annual basis, 30 million tokens will be systematically disbursed to gatekeepers, the reward being calculated on a fixed KONE rate predicated on the radio equipment's service provision. Should there be a surplus of tokens from the annual disbursement, these will be strategically allocated towards incentive rewards, the specifics of which will be decided in due course.

Example Revenue Model (Highest Tier)

Total Tokens (Yearly)	Radios Deployed	Total Tokens Unlocked (Daily)	Tokens Earned Per Radio (Daily)	Tokens Earned Per Radio (Yearly)
30 Million	0-500	82 191	164.38	60 000
30 Million	501-1000	82 191	82.191	30 000
30 Million	1001-2000	82 191	41.095	15 000
30 Million	2001-3000	82 191	27.397	10 000
30 Million	3001-4000	82 191	20.54	7500
30 Million	4001-5000	82 191	16.438	6000

*Earning based on highest tier radio - lower tier radios can earn less tokens
**Unused tokens will be transferred over to incentive rewards
***If the # of nodes exceeds the given years projections then token earnings daily will be calculated based on total tokens for earnings daily/# of nodes



3.5 Gatekeeper Node Rewards

Gatekeeper Node rewards are distributed using the KONE token.

Like the method used for Foundation Nodes, the rewards are disseminated to the Gatekeeper Nodes in proportion to the service provided by each node in the delivery of the service. For instance, in a village node that has provided mobile to its users, there may be a large Gatekeeper Node in a nearby town and multiple mesh Gatekeeper Nodes between the village and town cooperating to deliver the service. Each node earns a share of the rewards according to their role in service delivery.

3.6 Incentives for Operator Nodes

Operator Nodes accumulate rewards corresponding to the volume of traffic handled by the node. These rewards are allocated using the local stable currency, in compliance with the regulations of the country where the node is situated. The initial blockchain parameters stipulate a minimum token requirement of 1,000,000 tokens to operate an Operator Node. Any prospective modification to this parameter will be deliberated in collaboration with the token holders through a vote in the KONE DAO.

4. Node Quality of Service

The network employs a node quality grading system, serving as a core source of information to regulate quality control and motivate node operators through incentive mechanisms.

This grading system relies on historical quality and health check parameters, such as local latency between nodes, jitter checks, packet loss, upload and download speed tests, node

uptime, and a variety of other metrics, coupled with mean opinion scores. These quality grades, detailing aforementioned parameters for each node, will be made publicly accessible to node operators and the general public.

Nodes that fall below a specified grade threshold will be excluded from the selection pool for ongoing communication handling until an improvement in their grades is noted. This improvement is based on enhanced performance during automated background health checks.

5. Users on the Network

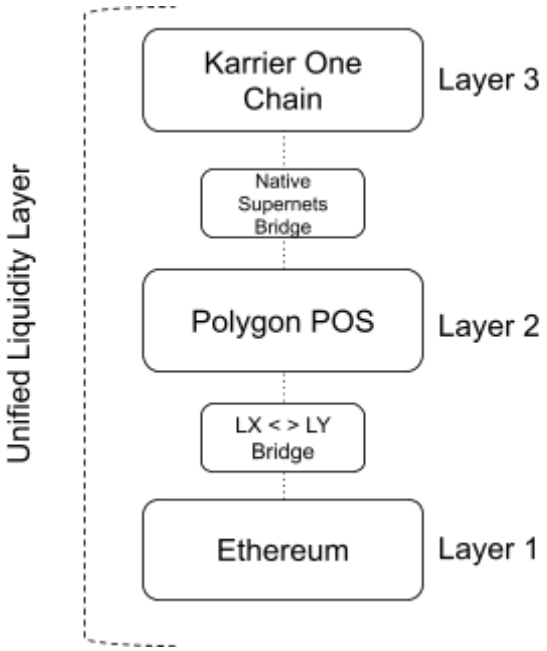
A network user is characterized as an individual who employs the services offered on the network. These services, which initially comprise a range of communication services such as wireless access, multimedia, and messaging, are diverse. Using these services necessitates the expenditure of a transaction fee in the form of a digital token.

Consequently, as the number of network users grows, so does the usefulness of this digital token. The provision of additional services further boosts the demand and utility of the token. Moreover, users have the ability to conduct peer-to-peer transfers of their digital tokens, facilitating the sharing and distribution of this network utility to others.

Establishing mobility through the Karrier One dashboard account offers the advantage of accessing the telecom layer even to those users who lack expertise in Web3, while simultaneously providing them the choice to utilize the full potential of the blockchain along with their service. Users can acquire a Web3 wallet that enables them to delve into every aspect of the blockchain. Our Zero Knowledge web interface simplifies the process of accessing decentralized applications (dApps) at the telecom level, hence making blockchain utilization uniquely straightforward. This is a stark contrast to the conventional adoption of blockchain, which is often hampered by its complex nature.

6. Selection of Blockchain

Our decision to use Polygon Supernets for our solution enables us to harness the combined power of Ethereum and Polygon to attain optimal levels of liquidity, speed, cost, security, and decentralization.



Karrier One Chain Architecture

Although not in the scope of this paper, below is a summary of the key considerations, advantages and benefits of selecting Polygon Supernets:

- Ethereum Compatibility: Polygon Supernets is compatible with existing Ethereum tooling, allowing Karrier One Chain to leverage the robust Ethereum ecosystem while benefiting from the scalability and performance enhancements offered by Polygon.
- Customizable App-Chains: Karrier One Chain can create a customized app-chain tailored to the specific needs of the telecommunications and wireless connectivity industry, ensuring optimal performance and functionality.
- Interoperability: Karrier One Chain can easily bridge ERC-20, ERC-721, and ERC-1155 tokens with native bridges, enabling seamless interaction between various stakeholders and platforms.
- Governance: Karrier One Chain can granularly manage its Supernet with The KONE DAO, ranging from validator selection to bridge transactions, ensuring a secure and well-governed platform.
- Access to Premium Tools and Services: Karrier One Chain can utilize premium third-party tools and services offered by Polygon Supernets, including node providers, RPC providers, smart contract monitoring, oracles, block explorers, KYC providers, and fiat on-ramps.

6.1 Use of Smart Contracts

The integration of blockchain technology and smart contracts presents a significant paradigm shift for established telecommunications providers. This is due to the fundamental disruption of their traditional business models, which have been operating for decades on centralized infrastructures. Our proposed approach necessitates the reimagining of business models, firmly establishing them on an EVM-compatible blockchain with smart contracts forming the bedrock of their operations.

Smart contracts afford us the opportunity to reconfigure conventional practices of executing billing and roaming agreements, as previously established by legacy telecom operators. This sets a fresh precedent for structuring these agreements, using smart contracts as the cornerstone. This innovative approach invites both established and decentralized telecommunications operators to interact with the infrastructure facilitated by Karrier One, fostering novel interactions previously unimagined.

The implementation of smart contracts heralds an array of efficiencies:

- Time optimization – Transactions that once took days can be processed nearly instantaneously.
- Cost efficiency – It significantly reduces or even eliminates administrative overheads and intermediary expenses.
- Data integrity – All transactions maintain high levels of accuracy and consistency.
- Risk mitigation – Vulnerability to tampering, fraudulent activities, and cybercrime is considerably reduced.
- Trust amplification – Shared processes and record keeping are visible to all parties involved, fostering mutual trust.
- Dispute minimization – Absolute transparency establishes a foundation where disputes are greatly reduced or even eliminated.

These efficiencies converge to create a service that is not only less expensive and faster but also achieves improved scalability and increased reliability. The ultimate beneficiaries of these improvements are the end consumers. The service becomes more accessible, promotes expanded coverage, and facilitates connectivity even in more remote locales.

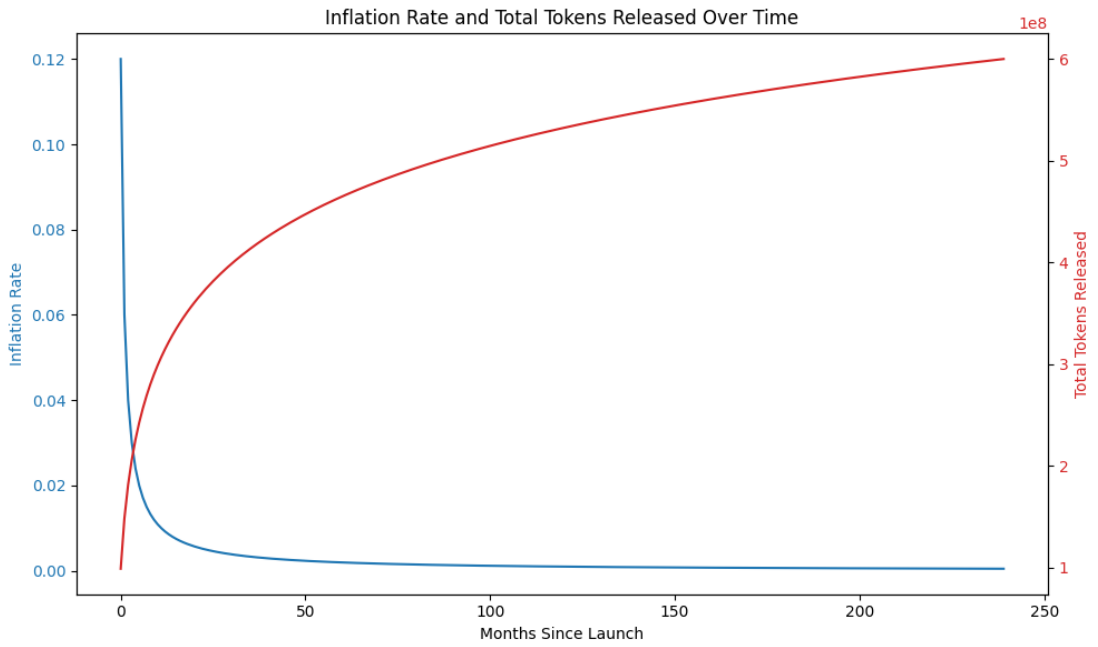
7. PNS/Digital Identity

The Phone Numbering System (PNS) is designed to act as a conduit between the traditional Web2 and the evolving Web3 domains. Conventional communication systems fall short of providing the fundamental attributes that enable digital engagement with financial systems, while Web3 offers enhanced digital access to blockchain ecosystems that have Decentralized Finance (DeFi) as their financial infrastructure. The amalgamation of the two allows users to have a wallet directly associated with their phone number. This simple yet powerful integration enables smooth transactions, facilitating effortless payments and augmenting the potential for peer-to-peer exchanges.

The solution that has been selected for the digital identity is Karrier One Inc. Phone Number System powered by Polygon.

8. Inflation Mechanics

The rate of monthly inflation is calculated as the initial rate of inflation divided by the time since launch + 1. The initial rate of inflation is 12% p.a. (relative to aggregate supply) and set as such to target a 3bn aggregate KONE supply in year 20. Total token inflation over a 20-year period represents 20% of the aggregate KONE supply



MAX 3 BIL TOKENS

Allocation	**Years Vested**	**% of Total**	**# of Tokens**
Team	1 Year Lock + 24 Months	15%	450,000,000.00
Advisor	1 Year Lock + 24 Months	5%	150,000,000.00
Seed	1 Year Lock + 18 Months	5%	150,000,000.00
Private Sale	1 Year Lock + 12 Months	25%	750,000,000.00
Public	45 Days	5%	150,000,000.00
Node Operators	N/A	20%	600,000,000.00
Gatekeepers	N/A	8%	240,000,000.00
Marketing & Operations	1 Year Lock + 12 Months	10%	300,000,000.00
CEX + DEX Listings	Unlocked as needed	5%	150,000,000.00
Incentive Rewards	Unlocked as needed	2%	60,000,000.00
Total Tokens		100%	3,000,000,000.00

Months = vested monthly (e.g 1 year lock + 24 Months means after 1 year monthly unlocks happen for 24 months)

Private Allocation 25%: An exclusive token sale for Karrier One is planned for Q3 2023, targeting a select group of accredited private investors. Tokens from this private sale will be locked for the first nine months after the public sale. They will be automatically staked, making them eligible for early staking incentives and inflation benefits.

Public Offering 5%: An open market sale is set for Q4 2023, intended for those interested in supporting the network either by running nodes or through staking. These public sale tokens aren't subject to any lockup period and are eligible for early staking incentives.

Incentive Rewards 2%: KONE tokens allocated for early incentive rewards are reserved for referral programs and potentially additional early staking benefits, in case of mainnet launch delays.

CEX + DEX Listing 5%: Karrier One has allocated 5% of tokens for listings on both centralized and decentralized exchanges.

Advisory Allocation 5%: Advisory tokens are distributed in recognition of strategic legal, technical, and business contributions made towards promoting Karrier One's adoption. These tokens will be gradually released over two years, following a one-year lock-in period.

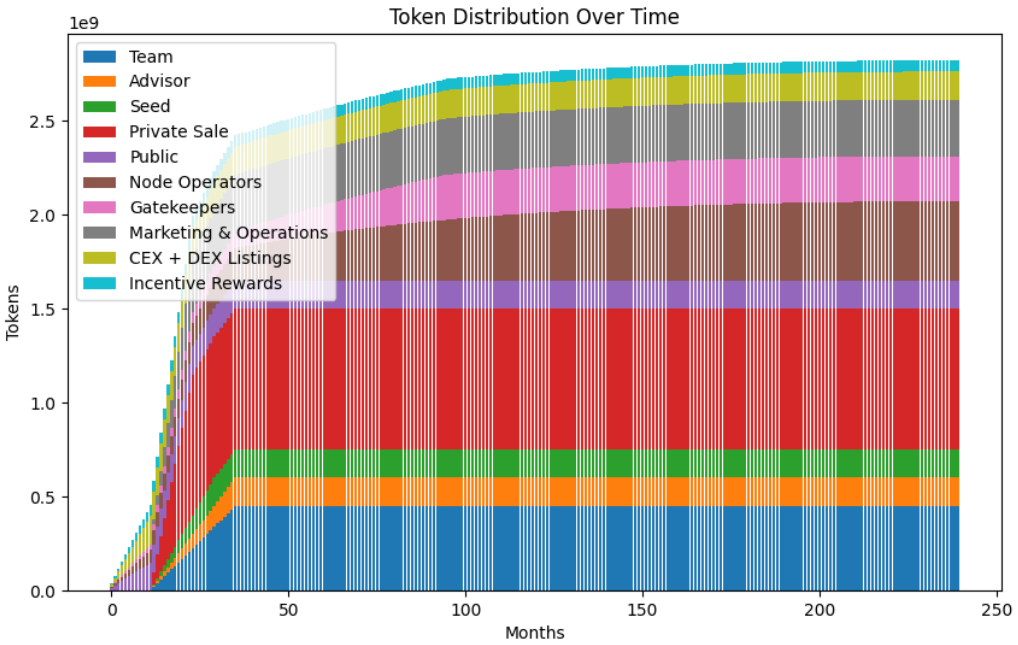
Co-founders & Team 15%: A portion of the tokens is reserved for the founders and key team members of Karrier One. The project, operational for over three years with a successful proof-of-concept in Canada First Nations, owes much to their effort. Their commitment remains pivotal as the mainnet is slated for a Q4 2023 launch.

Seed Round 5%: This portion of tokens has been set aside for early-stage investors who supported Karrier One during its initial phases. These investors, often taking on more significant risk, are crucial to the project's early development and success.

Karrier One Operations and Marketing Fund 10%: These tokens will support future physical network expansions and other operational costs over a six-year timeframe, contributing to sustainable growth.

Gatekeeper/PoC Nodes 8%: Tokens allocated for incentivizing gatekeeper nodes ensure network stability and expansion.

Node Operators/Staking 20%: A significant proportion of tokens is reserved for node operators and staking, underlining the critical role these contributors play in network security, governance, and functionality.



Simulated Token Release Over 20 Years

9. Conclusion

In conclusion, Karrier One will introduce a new mobile network that allows anyone to create connectivity where they need it; seamlessly, securely, with maximum efficiency, and at speeds never thought possible before. Individuals, communities and businesses will be able to connect with one another in a frictionless environment where complete trust is built in, privacy complements transparency and users are empowered owners of their identities.

Karrier One sets out to establish the first commercial grade, community-owned 5G network infrastructure in the world, that will be able to provide services to other network carriers as well as to its own private user base, through a combination of both licensed and unlicensed radio spectrum. Our goal is to decentralize wireless infrastructure and democratize mobile network access by creating a new type of global telecommunications layer, in which consumers can also be service providers and stakeholders simultaneously. We believe consumers all over the world should experience a higher quality of service and should be able to pay lower mobile access tariffs, based on fair pricing principles, without having to stand for unjustified heavy premiums made possible by lack of competition and unfair advantages.