

BitGain

ABOUT THIS PAPER

This is the first white paper from BitGain Labs. he purpose of this document is to define the basic terms and key metrics that will empower the innovative UID System

ABOUT BitGain

Our goal is to give users the power to take back the internet one layer at a time. We want users to have the ability of sharing content and representing their identity/brand without censorship

www.bitgain.ai

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Executive Summary

Every year, millions of dollars are mistakenly sent to the wrong crypto addresses. This is not just an error made by investors; even major crypto exchanges make mistakes.

In 2022 both crypto.com and BlockFi accidentally transferred \$500 million to the wrong addresses. Sometimes users accidentally send funds to exchanges, But recovering them can be incredibly challenging and expensive.

It is vital to address this issue in order to enhance the safety and convenience of transactions for all parties involved.

As we move into the era of Web3, decentralised identities have become increasingly important. Many companies now offer Web3 domain names making decentralised identity an aspect.

However, managing a domain for each address can often be quite burdensome regardless of how domains one owns. This is where BitGain comes into play! BitGain serves as a platform for all your cryptocurrency addresses. Streamlines this process using the Decentralised Unique User Identification (UID) System.

Our main objective is to prevent individuals from sending their cryptocurrency to incorrect destinations. We achieve this by leveraging the UID System. Not does it enhance transaction security and simplicity? It also helps safeguard your assets. BitGain diligently works towards making cryptocurrency transactions more secure and user-friendly.

Imagine a digital identity as robust and secure as a cryptocurrency wallet, safeguarding personal credentials within a blockchain environment. This UID, protected by cutting-edge cryptography, allows you exclusive access to your data, either through a password or biometric keys like fingerprints or Face ID. In the Web 3.0 era, corporations can no longer freely access your data; they must request permission each time. BitGain's UID System enables you to

selectively share information, streamlining processes such as job applications, where you can provide only the necessary data, enhancing both privacy and security.

Our UID System offers five pivotal advantages:

- **Transferable Social Graph:** Users can seamlessly transfer their social networks and digital identities from one platform to another, eliminating the need to rebuild networks repeatedly.
- **Guaranteed Data Ownership:** Users have full control over their data, with the UID system ensuring ownership and authenticity.
- **UID with Zero-Knowledge Proofs:** This cryptographic technique enables users to prove facts without revealing sensitive details, revolutionising privacy and security.
- Avoiding Civil Attacks: BitGain's UID prevents the proliferation of bots and fake identities, enhancing internet security.
- **On-Chain Reputation:** By linking UID to non-transferable tokens and reputation systems, BitGain opens doors to new possibilities, like blockchain-backed credit scores and trust-minimised systems.

Furthermore, BitGain offers practical benefits for applications, including reduced data hosting, enhanced user profiling, direct communication, simplified compliance, and the establishment of trust and transparency.

This summary provides an overview of the capabilities of BitGain. In the following sections, we will reveal everything about our solution, the underlying technology, its applications, and our commitment to making crypto more secure and user-friendly while also protecting your privacy.

Introduction

In the world of Blockchain transactions, users often deal with complex cryptographic addresses—strings of characters that are hard to recognise and even harder to remember. BitGain steps in as a friendly solution, focusing on identity verification and secure crypto transactions. Say goodbye to the struggle and fear of dealing with long, convoluted addresses.

Just like how web users replace confusing IP addresses with user-friendly domain names through DNS, BitGain lets Blockchain users replace their lengthy crypto addresses with easy-to-recall names. Imagine not needing to copy and paste addresses from one place to another anymore.

Getting a name through BitGain is a breeze, giving everyone the perks of convenience and boosted security when interacting with decentralised apps (DApps) and other users.

Simplifying Transactions and Amplifying Security

At the heart of the BitGain project lies the special Decentralised Unique User Identification (UID) system. This ingenious system replaces the need for intricate cryptocurrency addresses with a single UID, streamlining transactions while enhancing security.

Imagine having a digital passport consolidating all your addresses, making transactions a breeze and reducing the risk of errors. With BitGain UID, you can share your identifier confidently, knowing that each transaction is secure and accurate.

Al-Powered Verification for the Modern Era

BitGain goes beyond conventional methods by integrating advanced Al algorithms. This state-of-the-art technology ensures a seamless verification process, eliminating the need for repetitive checks across various platforms. No more frustrating, time-consuming verifications – BitGain's Al-powered system validates your identity swiftly and securely.

Your Data, Your Control

BitGain is committed to placing users in the driver's seat when it comes to their data. Through zero-knowledge attestations and decentralised storage on the Blockchain, your information remains private and secure. You determine what information to share, mitigating the risk of potential misuse.

Global Compliance and Forward-Looking Vision

Navigating global regulatory requirements, BitGain adheres to the utmost standards, including Know Your Customer (KYC) and Anti-Money Laundering (AML) norms. This not only ensures your security but also the project's legal compliance across diverse jurisdictions.

A Glimpse into the Future

The BitGain Project extends beyond transactions. It envisions a world where users can securely interact with Blockchain-based platforms, partake in digital voting, access DeFi services, and contribute to transparent Blockchain operations—all while upholding privacy and avoiding complicated validation procedures.

This whitepaper will dive into the technical architecture, explore real-world use cases, and outline the governance model that empowers the BitGain community.

Our mission is to redefine identity verification, simplifying crypto transactions for security and accessibility.



Mission and Vision

Mission Statement

At BitGain, our mission is to empower individuals by giving them control over their identities and assets in the digital world. We are dedicated to revolutionising the internet and ensuring that people have power in their hands. Our goal is to create an identity for each and every individual on this planet.

Our UIDs serve as your Web3 identity allowing you to authenticate, explore and engage in the world like never before. With BitGain you can effortlessly verify your identity and seamlessly access applications, games and virtual worlds. We also simplify transactions by eliminating all your complicated wallet addresses and replacing them with a simple UID.

What sets BitGain apart is that once you acquire your UID from us, it remains yours forever. No renewal fees or hidden costs are involved. Your UID is more than just a number; it's your key to secure logins, building profiles, making payments, building reputation and endless possibilities.

Vision Statement

Our goal at BitGain is decentralising the internet creating a space that prioritises individuals and gives them autonomy over their presence. We imagine a future where anyone regardless of their background or location can have ownership of their identity. The UIDs we offer, with their capabilities, will be the foundation upon which this vision is built.

We believe that the adoption of BitGain UIDs as the standard for Web3 identities greatly improves the experience for both users and businesses. Our goal with BitGain is to simplify and democratise access to the blockchain making it accessible and understandable for everyone. We are committed to empowering users and eliminating hidden fees ensuring that your BitGain UID truly belongs to you now and in always.



Terminology

UID: Each individual is assigned an identification number (UID) that is associated with their addresses.

Biometric Analysis: This involves analysing characteristics like fingerprints or facial features to verify a person's identity.

Decentralised Storage: To avoid storing all your data in one location, the data is spread across multiple nodes for enhanced security and accessibility. No longer reliant on a server.

UID Management: The process of creating and managing numbers for individuals within a specific online system.

Biometric Verification Score: A score derived from observing an individual's behavior to ensure their claimed identity is genuine.

Authentication Algorithm: A secure method used to verify identity by combining scores.

Zero Knowledge Attestations: This entails performing checks without disclosing details thereby prioritising privacy and safety.

Sequestration: Refers to keeping your information private and concealed from others.

Decentralised Identity Storehouse (DIS): A repository where essential information about an individual is stored across nodes, safeguarding privacy.

Verified Identity Data: Information about an individual that has been thoroughly checked and confirmed as accurate serving as proof of their identity.

Verification Process: The series of steps taken to ensure the accuracy of the information, facts and the individual's identity.

The verification score helps authenticate and ensure the accuracy of information or identity.

UID associations: Linking all your crypto addresses to your identifier (UID).

Decentralised UID verification: Verifying your identity in a manner that enhances safety and transparency.

FAQs

Q1: What is BitGain?

BitGain is a project within the finance industry that focuses on ensuring the safety of transactions in the cryptocurrency realm using identity verification. We utilise cutting- edge technologies such as Blockchain and AI to establish a trusted platform for cryptocurrencies.

Q2: How does BitGain address the challenges associated with identity verification?

BitGain tackles these challenges by implementing solutions like our Decentralised Unique User Identification (UID) system. This system assigns a number to cryptocurrency addresses facilitating transactions and mitigating errors caused by complex addresses.

Q3: What is the UID system? How does it function?

The UID system is an identification number given to each user. Users can link all their cryptocurrency addresses to their UID on the BitGain platform. This decentralised association strengthens security and simplifies transactions by replacing addresses with UID.

Q4: In what way does AI contribute to BitGain's identity verification process?

BitGain utilises AI algorithms for analysis and facial recognition. These algorithms accurately verify user identities eliminating the need for verification checks and enhancing security.

Q5: What significance does a Decentralised Identity Storehouse (DIS) hold?

The DIS securely stores verified identity data on the Blockchain ensuring tamper evidence, transparency and user-controlled access to their information. This innovative approach reduces reliance on databases. Elevates security measures.

Q6: How does BitGain improve user privacy?

BitGain enhances user privacy by implementing zero knowledge attestations, which allow users to share information without disclosing sensitive data. This ensures that user privacy is maintained while still facilitating verification processes.

Q7: How does BitGain ensure compliance with regulations?

BitGain ensures compliance with regulations by following established standards such as Know Your Customer (KYC) and Anti Money Laundering (AML) norms. This commitment to regulatory compliance spans across jurisdictions promoting both user security and the integrity of the project.

Q8: What applications does BitGain enable?

BitGains versatile identity verification system enables real-world use cases, including access to decentralised finance (DeFi) platforms transparent digital voting systems and reliable Blockchain-based operations. This empowers users to seamlessly interact with services built on BitGain technology.

Q9: What is BitGain mission and vision?

BitGain's mission is to redefine identity verification through cutting-edge technologies creating a user-centred ecosystem. The vision is to emerge as a pioneering leader in identity verification enabling interactions with Blockchain platforms and transparent operations.

Q10: How does BitGain help in driving the acceptance of technology?

BitGain plays a role in promoting mainstream adoption by making identity verification and transactions efficient bolstering security measures and eliminating obstacles for users.

Q11: How does BitGain empower users to have control over their data?

BitGain ensures that users have the ability to decide which information they want to share. By implementing user-controlled data participation mechanisms, BitGain prioritises privacy protection. Minimises the risk of misuse.

Q12: What distinguishes BitGain from other methods of identity verification?

What sets BitGain apart is its utilisation of Blockchain technology, AI algorithms and the UID system. With this combination, BitGain offers a UID for all user addresses while eliminating the limitations associated with centralised databases' repetitive verifications and complex addresses. Ultimately it provides a streamlined and user solution.

Q13: What are some possible future developments for BitGain?

BitGain has a vision for the future where users can securely engage with Blockchain- based platforms participate in voting, access DeFi services and contribute to Blockchain operations. The project aims to grow and enhance its services.

Q14: How does BitGain ensure the security of its processes?

To ensure the security of user data and transactions BitGain utilises principles, encryption techniques and secure storage on the Blockchain. This comprehensive approach helps minimise vulnerabilities and potential risks.

Problem Statement

Web 2.0 right now is pretty much the internet that most people use where an email address basically manages their identity, and then you know that email address is connected to a bunch of different websites with passwords and maybe you know you are proving your identity information to those websites whenever you sign up for them, but it's stored across the entire web in multiple different places.

And whenever you visit a new website, or sign up for a new social media platform for the first time, everyone is asking you to accept their cookies, we usually just click accept automatically but what if we'd actually read that long disclaimer, we'd think twice before giving away our personal data.

Our online data is a valuable commodity in fact the big data market was worth a staggering \$162.2 billion in 2021 according to a 2022 report by researchandmarket.com, and it's forecast to grow by \$397.04 billion during 2023-2027.

And while these centralised platforms are selling our data to marketing companies they're generating eye-watering revenue so a user's data is sold and that user doesn't see a dime of the profit now here's where it gets interesting the tide is slowly turning thanks to the ethos of web 3 and blockchain technology.

The cryptocurrency and Blockchain technology industry is rapidly evolving, presenting more challenges, especially for identity verification.

One of the problems associated with identity verification on Blockchain is the idea of having a single weak point. This concern arises because all our personal identity information is stored in a place.

If there's ever a breach of data or a cyber attack it has the potential to jeopardise our identity. This means that individuals, with intentions, could gain access, to information and personal details resulting in identity theft or the malicious misuse of data.

The existing methods of verifying identity, which depend on systems and traditional procedures must be adapted to better meet the requirements of the ecosystem.

These challenges give rise to problems that impede users from embracing and effectively participating in the world of cryptocurrencies.

Challenges

Lack of Privacy:

One major challenge is the risk to privacy. Centralised identity databases have vulnerabilities that can lead to data breaches and unauthorised access.

If a breach occurs at a cryptocurrency exchange for example sensitive user information like passport details and addresses could be exposed, putting users at risk of identity theft, financial fraud and compromised privacy.

Poor Verifications Processes:

One common problem faced by cryptocurrency users is the verification process. It can be quite frustrating and demotivating for users to repeatedly go through the identity verification procedures, on platforms, which ultimately leads to delays in getting started.

Take, for instance, someone who frequently utilises DeFi platforms. Every time they decide to try out a platform they are required to go through the verification process. This constant repetition slows down their immersion within the ecosystem.

Furthermore, the current methods of verification often limit users' control over their data. Users should have the freedom to determine how their sensitive data is handled during the verification process as well.

These challenges highlight the significance of finding solutions that address privacy vulnerabilities while simplifying the verification process and empowering users with control, over their digital footprint.

Information Sharing Raises Security Concerns

There is a concern among people when it comes to sharing information on platforms as it increases the risk of that information being misused or exploited by parties.

For instance individuals may be required to submit personal identification documents on platforms leaving them exposed to identity abuse or fraud.

Absence of Decentralisation:

The need for decentralisation is an issue in identity systems. These systems rely on centralised databases, which makes them vulnerable to failures and manipulation.

However, this centralised structure goes against the principles of decentralisation in the Blockchain industry.

Global Regulatory Challenges:

Another challenge is complying with regulatory requirements. Platforms operating across jurisdictions need help meeting standards such as Know Your Customer (KYC) and Anti Money Laundering (AML).

To illustrate this imagine a cryptocurrency project needing help to adhere to KYC regulations across countries resulting in complications and possible penalties.

Impact

These challenges collectively pose obstacles to the growth and progress of the cryptocurrency ecosystem.

The hesitation of users to share information on platforms due to privacy concerns hampers widespread adoption.

Complicated verification processes impede user involvement thus preventing the realisation of Blockchain-based operations' full potential.

Additionally, with a secure solution for identity verification, the possibilities for DeFi, digital voting and transparent Blockchain operations are unlimited.

It is clear that an urgent need exists for an approach to tackle these challenges and unlock the advantages of a user-oriented and decentralised identity verification system.

Considering these concerns, BitGain has a vision for a solution that leverages state-of- the-art technologies to establish a new era of trust, privacy and ease of use in the world of cryptocurrencies.



Solution: UID System

Web 3.0 has brought about significant changes, particularly in how identity is managed. Now, your identity is tied to a key pair – a public key and a private key – through a blockchain wallet. This transformation has the potential to revolutionise the entire system in several key ways.

Imagine this UID as a fortified crypto wallet, akin to those used for cryptocurrencies like BTC or ETH. However, instead of storing just digital assets, it safeguards personal credentials as well – from identity cards to licenses – within a secure blockchain environment.

The UID, encrypted using cryptography, ensures only you can access your data. This access can be granted through either a password or biometric keys like fingerprints or Face ID.

Companies seeking your data can't freely retrieve it anymore. They're now required to ask for your permission each time. Your wallet will notify you of data access requests, allowing you to choose what to share based on your preferences.

This has real-world implications. Imagine applying for a job; the potential employer wants to verify your credentials. Instead of disclosing all your data, your decentralised UID enables you to share only the requested information, streamlining the hiring process.

Identity remains pivotal in our daily lives and human evolution. As society evolves, identity solutions should naturally evolve alongside, adapting to the changing digital landscape.

The 5 Benefits of UID System

1. Transferable social graph

so if you have blockchain-based social networks and you have connections with other users on those social networks, then your entire social graph could transfer from website to website, and your digital identity can move with you without having to build your entire social network from scratch every single time.

2. Guaranteed Data Ownership

UID's potential for Web 3.0 also lies in granting users ownership over their data. now, blockchain interactions are tied to addresses functioning as pseudonyms, with data limited to on-chain transactions. However, with UID and private key associations, users could control their data. This concept enables data management within personal devices and allows digital signatures to validate and share information. BitGain aids in device setup, ensuring data accuracy. This user-centric approach fosters data autonomy, promoting enhanced security and decentralisation.

3. UID with zero-knowledge proofs.

Decentralised identity empowers individuals to possess their data truly rather than surrendering it to centralised entities like social networks. Another revolutionary aspect is the capacity to provide specific data without exposing the information itself, made achievable through zero-knowledge proofs.

This cryptographic technique allows you to prove facts without revealing the details. For instance, imagine applying for a mortgage to buy a house, one of the common things that they want to know when they lend you money is what is your income, the debt ratio or what is your net worth, so with zero knowledge, you could prove that you satisfied those conditions for that mortgage without actually revealing what that information.

4. Avoiding civil attacks

The potential of identity to transform web3 also includes enhancing internet security against attacks. These attacks involve creating fake identities by bad actors as we often see with the abundance of bots on platforms such as Twitter.

With UID issued by BitGain, we can guarantee the presence and authenticity of humans. This method can effectively prevent the impact of bots strengthening the web and avoiding the hustle caused by civil attacks.

5. On-Chain reputation

The UID has the potential to reshape the capabilities and future of blockchain in a great way. It goes beyond soul-bound tokens. Opens up possibilities by establishing a better on- chain reputation system.

Consider a use case; creating a UID for a non-transferable token. This UID can be used to issue university credentials and facilitate the development of reputation systems.

Imagine having a borrowing history or a blockchain-based credit score directly linked to your identity. In DeFi, where over-collateralisation is common, a blockchain-backed credit score could allow borrowing without needing excessive collateral. This introduces a trust- minimised system for on-chain reputation.

This groundbreaking advancement, made possible by UID unlocks dimensions in technology while ensuring data security and trust in the digital world that surpasses traditional limitations.

Benefits For Applications

Reduced Data Hosting

One advantage of using the BitGain UID system is that it helps applications avoid the need to store databases with user contact information.

Instead, applications can simply request access to identity details when which reduces the risk of data breaches and enhances overall data security.

Enhanced User Profiling

Another benefit is that the BitGain UID system allows applications to ask for user information, such as profiles.

This additional data can be used to personalise services and offers resulting in an engaging experience, for users.

Direct Communication

Moreover, applications can directly communicate with users through the BitGain system.

This communication includes direct access and email service ensuring protected interactions while maintaining user privacy and shielding against spam or phishing attempts.

Simplifying Compliance

BitGain ensures compliance, with requirements making it easier for Applications to operate in various jurisdictions.

This simplification reduces complexities. Allows applications to focus on providing services instead of dealing with complicated regulatory environments.

Building Trust and Transparency

By integrating the UID system Applications can offer their users a verification process that's trustworthy and transparent.

This helps build trust among users and encourages participation and contributes to a secure and dependable ecosystem.

Boosting User Engagement

Streamlining the onboarding and identity verification processes leads to increased user engagement.

Applications can provide a more convenient user experience ultimately attracting and retaining a user base.

Comparison: BitGain vs Competitors

In this comparison, we'll be evaluating the strengths and characteristics of BitGain, ENS and Unstoppable Domains.

By analysing their features across areas we can shed light on the benefits that BitGain offers when it comes to identity verification and managing Digital Identities.

Feature	BitGain	Ethereum Name Service (ENS)	Unstoppable Domains
Domain Management	Introduces UID System, User- controlled UIDs for managing crypto addresses	Human-readable domain name, Domain rented and needs renewal	Cross-chain domain
Ownership and Control	Permanent ownership with User-controlled UIDs	Domain rented and requires renewal	Permanent ownership
Identity Verification	Identity verification integrated with UIDs, and decentralised KYC	No identity verification	Allows personal information in the domain
Use Case	Streamlines identity verification, ensures privacy and security	Ethereum transactions and dApps	Bridging
Governance and Community	Empowers users through UID-driven empowerment	Governance model based on Ethereum	Governance based on token model
Content Ownership	V	×	×
Decentralised	V	V	×
NFT / Metaverse	V	V	V
Staff Recruitment	V	X	X

Detailed Comparison:

• Domain Management

BitGain has introduced the UID System allowing users to have control, over their digital identity.

With this system managing cryptocurrency addresses becomes simpler. Ownership is ensured. Additionally, ENS provides domain names that are mainly designed for readability while Unstoppable Domains focuses on cross-chain domains.

• Ownership and Control

With BitGain users have full control, over their assets through user-controlled UIDs ensuring permanent ownership.

In contrast, ENS relies on rented domains that require renewal and Unstoppable Domains offers ownership without identity verification.

• Identity Verification

BitGain takes an approach by integrating identity verification using UIDs and decentralised KYC.

This not only enhances security. Also protects user privacy. On the other hand, ENS lacks identity verification altogether while Unstoppable Domains allows personal information to be included within the domain.

• Use Case

BitGains main objective is to simplify the process of verifying user identities with an emphasis, on preserving privacy and security.

ENS primarily functions as a facilitator for Ethereum transactions and DApps while Unstoppable Domains serves as a connecting link.

Governance and Community

BitGains' approach to empowering users through UID ensures that individuals have control over their data fostering a sense of community.

ENS governance model aligns, with the principles of Ethereum while Unstoppable Domains relies on a governance system that is token-based. In this comparison, it becomes clear that BitGain distinguishes itself through the introduction of the UID System, which brings together security, privacy and user control.

Its incorporation of identity verification. Decentralised KYC will solidify its distinctiveness in the market.

While Ethereum Name Service and Unstoppable Domains offer their features BitGain's comprehensive approach stands out as a revolutionary development, in identity verification.

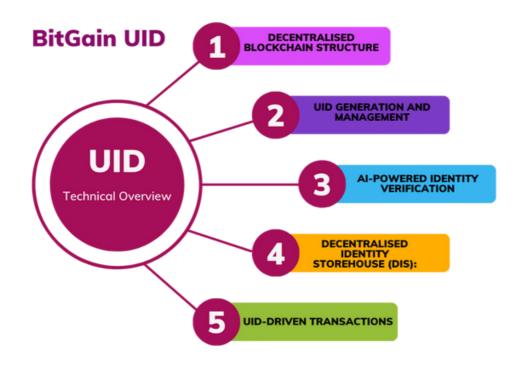
But, technically, how does the UID really work? Let's explore the underlying mechanisms that power BitGain's innovative Decentralised Unique UID system and its intricate workings.

Technical Overview: BitGain's UID

The BitGain Project presents a system that brings a new approach, to identity verification and streamlines cryptocurrency transactions.

Central to this groundbreaking solution is the UID system, which seamlessly incorporates state-of-the-art blockchain technology and AI-powered verification algorithms.

This detailed technical overview provides insights, into the elements and functionalities of the BitGain UID solution.



Decentralised Blockchain Framework

BitGain employs a secure protocol to establish its decentralised structure. This framework ensures the permanence, transparency and security of identity data and UID connections.

By distributing data across a network of nodes, BitGain guarantees the reliability and trustworthiness of its identity verification system.

UID Management

When users register with BitGain, they are automatically assigned a UID. This UID serves as an identifier for their cryptocurrency addresses on platforms. Users have control over their UID allowing them to organise and link their addresses within the BitGain ecosystem.

AI-Powered Identity Verification

BitGain harnesses the power of AI algorithms to analyse data and carry out recognition. The Biometric Analysis Algorithm evaluates information to generate a verification score while the Facial Recognition Algorithm compares submitted images to produce another score.

These scores are then combined using the Authentication Algorithm to calculate a verification score ensuring a process for identity verification.

Decentralised Identity Storehouse (DIS)

DIS is a system that securely stores verified identity data on a blockchain using encryption.

This ensures that the data remains intact and transparent while giving users back control over their information.

UID Driven Transactions

With the UID Driven Transactions feature users can conveniently link their cryptocurrency addresses (such as those from Trust Wallet or MetaMask) to their UID. This eliminates the need for sharing addresses and simplifies the transaction process reducing errors and improving user experience.

Decentralised UID Verification

To ensure the authenticity of UIDs during transactions recipients can verify UIDs on the blockchain through a verification process. This helps prevent funds from being sent to incorrect addresses by confirming that the UID is associated with identity data.

Privacy through Zero-Knowledge Attestations

BitGain incorporates zero knowledge attestations for privacy purposes. These statements allow users to selectively share information ensuring the protection of identity data and maintaining user privacy.

Smart Contracts and Token Relations

Smart contracts are a part of the BitGain ecosystem as they enable interactions like verifying user identities and transferring tokens. The BitGain token has a function in motivating people to participate stake their tokens and contribute to governance decisions. These contracts play a role in simplifying processes. Improving the overall efficiency of the ecosystem.

Decentralised Governance Approach

BitGain adopts a governance approach that empowers token holders to actively engage in decision making processes. This empowers the community to propose and vote on developments ensuring that the projects direction aligns with the vision.

Enhanced Security and User Empowerment

With BitGains UID powered solution, security and user empowerment take the stage. The UID system along with AI backed verification and blockchain technology establishes an environment for managing identities and conducting cryptocurrency transactions under user control.

BitGains UID powered Solution for Cryptocurrency Identity represents an advancement in identity verification and cryptocurrency transactions. By harnessing decentralised technology, advanced AI algorithms and a focus on user design BitGain revolutionises how individuals manage their identities and securely navigate the realm of cryptocurrency and blockchain technology.



UID Technical Architecture

In this section, we will explore the structure of UID focusing on its elements, algorithms and foundational principles.

1. UID Generation Algorithm:

When a user signs up for the BitGain platform, an identifier (UID) is automatically generated for them.

To ensure both uniqueness and security the generation process utilises a hash function. The algorithm responsible for generating UIDs follows this approach:

AssociateUIDWithAddress(UID, Address)

2. UID Association with Cryptocurrency Addresses:

Users of BitGain have the option to connect their cryptocurrency addresses, including those, on Ethereum and Binance Smart Chain to their unique user identification (UID).

This connection takes place within the BitGain blockchain ecosystem enabling efficient transactions. The algorithm in charge of linking UIDs with addresses is:

BiometricVerificationScore = AIProcess(BiometricData)
FacialRecognitionScore = AIProcess(FacialImage)

3. AI-Powered Identity Verification Algorithm:

BitGain utilises state-of-the-art AI algorithms to perform analysis and facial recognition. These advanced algorithms evaluate users' biometric data and facial images to authenticate their identities.

The Biometric Analysis Algorithm processes the data. Calculates a verification score based on it while the Facial Recognition Algorithm computes a separate score for facial recognition. These individual scores are then combined using an Authentication Algorithm to generate a verification score.

VerifyUID(UID) { if (Blockchain.Contains(UID)) {
Return GetVerifiedIdentityData(UID); } return
ErrorKnowlegde; }

4. UID Verification Algorithm:

When individuals conduct transactions on the blockchain using their UID, the recipients can verify the legitimacy of the UID and its corresponding identity information by referring to the blockchain.

This decentralised verification procedure guarantees that the UIDs connection is accurate and minimises the possibility of sending funds to incorrect or malicious destinations.

VerifyUID(UID) { if (Blockchain.Contains(UID)) {
Return GetVerifiedIdentityData(UID); } return
ErrorKnowlegde; }

5. Zero-Knowledge Attestations for Selective Sharing:

BitGain utilises a technique called zero-knowledge attestations to enable individuals to share identity attributes without revealing their dataset.

This privacy-conscious method ensures that users only disclose the information for verification thus protecting their identity data. The process of generating zero-knowledge proofs follows the algorithm:

GenerateZeroKnowledgeProof(IdentityData, SelectedAttributes) {
 Proof = GenerateProof(IdentityData, SelectedAttributes);
Return Proof;

6. Decentralised Governance and Token Relations:

Within the BitGain ecosystem, smart contracts are employed to facilitate governance and interactions among holders.

Token holders have a role to play in voting on matters related to governance thus contributing to decision-making processes and fostering community involvement.

7. Mathematical Foundations:

To generate irreversible UIDs, BitGain utilises an algorithm based on hash functions. The verification algorithms powered by AI employ techniques such as matrices, neural networks and statistical analysis to determine verification scores.

Furthermore, the zero-knowledge process makes use of curve cryptography for the creation and validation of attestations.

8. UID Utility Equations:

The effectiveness of the BitGain UID system can be measured by using a series of equations that take into account factors such as time saved decreased errors, improved security, privacy protection, seamless transactions and compliance with regulations.

Utility=Savings_in_timeReduction_in_errorsEnhanced_securityPrivacy_
preservationFrictionless_transactionsRegulatory_compliance

The unique identification (UID) system is the foundation of BitGain's groundbreaking strategy for verifying cryptocurrency identities.

Through the integration of functions, AI algorithms and zero knowledge attestations BitGain offers a secure and user-friendly platform for managing identity operations and conducting cryptocurrency transactions. This innovative approach aims to transform how users interact with the crypto

ecosystem.

THE BitGain ECOSYSTEM

The BitGain ecosystem will be a dynamic and expansive playground, With four principal products: a Metaverse, NFT Marketplace, DApps, and a Wallet.

The ecosystem we have designed is well suited to address the changing needs of users focusing on innovation, security and secure transactions.



BitGain Metaverse

The potential of the BitGain Metaverse is enormous as it has the ability to revolutionise how Web3 users engage with the world.

To determine which Metaverse Ecosystem we should establish our platform on we will rely on community voting.

Within the BitGain Metaverse users can explore virtual meeting spaces and home theaters that greatly enhance interaction. This innovative layer transforms user controls, navigation methods, communication protocols and integration, with trusted third-party tools.



BitGain also incorporates an interoperability layer that facilitates data exchange between systems and enables cryptocurrency transactions on the blockchain. Through this approach, BitGain Metaverse aims to redefine user experience.

BitGain Wallet

Similar to a wallet that holds fiat currency and credit cards for easy access to funds in the bank.

A crypto wallet operates similarly, without storing any assets. Instead it securely holds the essential credentials required, private keys. And With BitGain wallet, we will safeguard your user UID.

DApps

DApps are the Web3 applications (and websites, or "Web apps") that make up the decentralised Web.

Most Web3 DApps look and feel just like Web2 websites and apps On the front end (the part you see and interact with) you most likely won't be able to tell the difference between Web2 websites and apps and Web3 DApps, until you get your UID.

NFT Marketplace

BitGain NFT Marketplace simplifies the storage and sale of types of NFTs. These tokens will be available for purchase or auction at a price.

To use the BitGain NFT marketplace you will need a wallet to securely store and trade your NFT tokens.

BitGain keeps up with the fast-changing crypto world.

Our system connects Metaverse, NFTs, DApps, and Wallets. We do this by using the BitGain UID system, making sure you're safe and confident when you're interacting with crypto.







BGN Token

The BGN token is the native currency of the BitGain Ecosystem. It is used to transfer value between users and creators, and to vote in community voting.

Token Name: Bitgain

Ticker: BGN

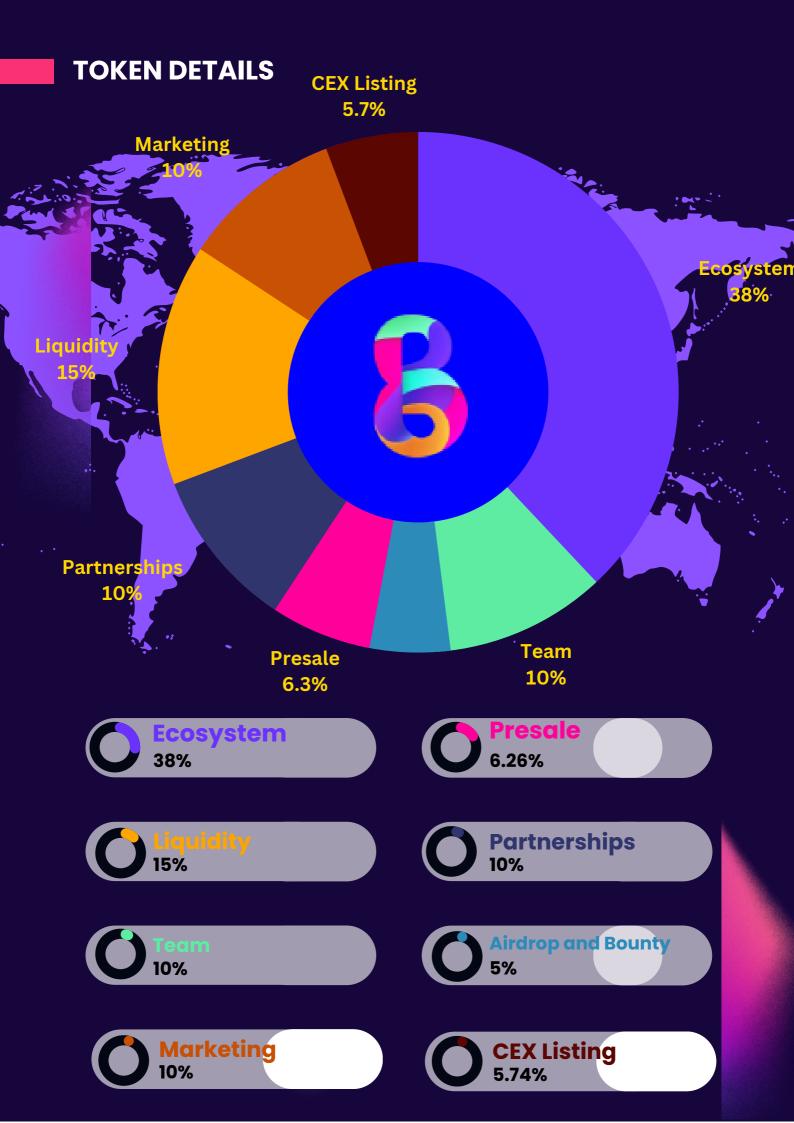
Maximum Supply: 1,000,000,000 BGN Tokens

Contract Address:

0x957fa93b3e131229305Bad9a9a4a280b30faB7d1

Chain: BSC BEP 20

Decimals: 18



Ecosystem: 380,000,000 BGN (38%) - Locked for 12 months to support the project's growth and development.

Team: 100,000,000 BGN (10%) - Locked for 12 months to ensure the team's commitment and alignment with the project's success.

Airdrop and Bounty: 50,000,000 BGN (5%) - Reserved for rewarding early supporters and spreading awareness.

Presale: 62,600,000 BGN (6.26%) - Funds collected from the presale stages to support the project's development and expansion.

Partnership: 100,000,000 BGN (10%) - Locked for 12 months to build strong collaborations and partnerships.

Liquidity: 150,000,000 BGN (15%) - Locked for 12 months to ensure liquidity and stability.

Marketing: 100,000,000 BGN (10%) - Reserved for promoting BitGain and attracting a larger user base.

CEX Listing: 57,400,000 BGN (5.74%) - Reserved for listing on exchanges, enhancing accessibility.



Presale Stages

Stage 1

- Price: \$0.005 USD
- Total Tokens: 5,000,000 BGN
- Duration: 5 Days

Stage 2

- Price: \$0.006 USD
- Total Tokens: 10,000,000 BGN
- Duration: 7 Days

Stage 3

- Price: \$0.007 USD
- Total Tokens: 15,000,000 BGN
- Duration: 10 Days

Airdrop & Bounty Event

Total Airdrop: 30,000,000 BGN Airdrop on TGE: 5,000,000 BGN Total Bounty: 20,000,000 BGN Airdrop Holders: More than 10,000 Airdrop Distribution: Before Exchange Listing Distribution Time: Token Generation Event (TGE) (TGE) Distribution Method: Claim

Exchange Listing

- Listing Price: \$0.025 USD
- Price Valuation: 45,952,380 BGN
- Market Cap: \$1,148,809 USD
- FDV: \$25 Million USD at the listing price: \$0.025 USD

IDO Stage (Public Sale)

- Price: \$0.009 USD
- Total Tokens: 33,333,333 BGN
- Duration: 10 Days

Vesting (IDO Round)

- 50% on TGE, 1 month cliffs
- Remaining 50% on next 2 months

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- 25% on each month

Private Sale Round

- Price: \$0.0035 USD
- Total Tokens: 14,285,714 BGN
- Duration: 7 Days



While the presale phase is critiacl for any project to generate initial capital, it also can be a great chance to buy new tokens at discounted prices before their launch.

And most successful token presales give a good advantage to investors of the Presale because the purchase price of most tokens rises instantly after they become tradable.

The BGN token goes beyond being just the backbone of the BitGain Ecosystem, it acts as a key for a decentralised future.

While the initial token allocation serves as the foundation for our growth and development, it's important to emphasise the utility of BGN. Beyond our ecosystem, BGN has the potential to bridge the gap between users, creators, and the wider crypto community.

As we list on exchanges and expand our reach, BGN's practicality extends into the crypto landscape. It becomes a means for transactions, a tool for voting and governance, and a symbol of trust in the world. BitGain dedication to utilitydriven tokens ensures that BGN is not limited to our ecosystem but serves as a gateway to an interconnected frontier that connects users, creators, and enthusiasts worldwide.



ROADMAP

Q3-Q4 2023

- Establish the team and strategic partnerships.
- Develop and audit smart contracts.
- Begin developing the UID system and integrating it with basic functionalities.
- Launch the official website and social media platforms.

Q2 2024

- Launch UID system beta version for internal testing
- Collect feedback and refine user experience
- Initiate partnerships with dApps and metaverse platforms
- Begin security audits for the UID system and dApp integration
- Blockchain Integration
- BitGain Staking

Q4 2024

- Introduce the NFT O marketplace with verified listings
- Launch the community governance platform using BGN tokens
- Unlock locked tokens for ecosystem development and partnerships
- Expand partnerships and collaborations within the crypto space

Q1 2024

- Conduct 6 stages of presale with increasing token price
- Engage in airdrop and bounty events to grow the community
- Initiate marketing campaigns to raise awareness
- Collaborate with influencers to promote the project
- Distribute BGN tokens to presale participants
- Listing BGN in major exchanges

Q3 2024

- Release the metaverse • platform for public access
 - Launch initial dApps within the ecosystem
 - Mainnet launch
 - Continue marketing efforts to attract users to the ecosystem

2025 And Beyond

- List BGN token on More exchanges exchanges
- Launch targeted marketing campaigns in new regions
- Scale the metaverse platform with additional features
- Continue building partnerships and integrations with key players

As we strive for acceptance and global recognition, BitGain remains dedicated to improving the user experience and security.

These phases are our milestones where we actively encourage user input and feedback to make enhancements. Our community's voice is our guiding compass towards creating a user-centric platform.

We will introduce upgrades, features, and optimisations that focus on the needs of our users while fostering an environment where every BitGain user feels heard and valued.

Together we will shape the future ensuring that BitGain remains at the forefront of identity and cryptocurrency management. Your journey with BitGain is a shared venture and your insights will guide us toward a more user-friendly tomorrow.

Our roadmap is always flexible to adapt to the changes in the crypto industry, and we also have our risk management strategy.

As we move forward, we will always keep our roadmap and all our milestones transparent, and we will regularly update our community.



Use Cases and Utility of BitGain

There are several use cases and utilities of BitGain, with a particular emphasis on the UID system.

1. UID System Use Cases

1.1 Enhanced Security

The UID system ensures that user identification is secure using encryption techniques. This makes it incredibly challenging for individuals to access or manipulate user data.

1.2 Streamlined Registration and KYC Compliance

One of the benefits of the BitGain UID system is how it simplifies the process of signing up and verifying users. Creating accounts is quick and easy. The UID system seamlessly integrates with KYC procedures ensuring compliance, with standards.

1.3 Tailored User Experience

BitGain UID system empowers users to personalize their experiences based on their profiles. Connected services and platforms can offer content, recommendations and interfaces ultimately leading to user engagement and satisfaction.

1.4 Decentralised Identity Verification

In a world where data privacy concerns are paramount, the BitGain UID system sets itself apart by eliminating the need for identity verification authorities. Users maintain control, over their identity data. Can grant or revoke access as needed.

1.5 Simplified Cross Platform Authentication

BitGain UID system simplifies how users access services and platforms. With one UID users can authenticate themselves across DeFi platforms and DApps seamlessly eliminating the need to remember multiple login credentials while also enhancing security by avoiding weak or reused passwords.

Cross platform authentication enhances the user experience by making it both convenient and secure.

2. Use Cases Beyond UID

2.1 Ensuring Secure Transactions

BitGain goes beyond the UID system. Provides a trustworthy and transparent environment for transactions.

By utilising technology BitGain guarantees the reliability of interactions reducing the possibility of fraudulent activities. Its unchangeable ledger promotes trust among users making it a dependable option for transactions.

2.2 Enhancing Supply Chain Management

In supply chain management BitGain offers visibility and transparency throughout the process. By implementing blockchain-based tracking the system ensures that products can be traced back to their source with authenticity.

2.3 Strengthening Voting Systems and Governance

BitGain plays a role in maintaining the integrity of voting systems and governance processes.

Through its tamper technology, secure and transparent digital voting can be achieved effectively.

2.4 Elevating Healthcare Records Management

When it comes to managing healthcare records BitGain takes privacy seriously by safeguarding patient data.

The blockchain-based system enhances both the security and accessibility of records while strictly upholding confidentiality.



Staking BitGain

Staking BitGain provides an opportunity to earn income while holding onto your valuable digital assets. It's like depositing funds into a high yield savings account. With a positive twist.

With BitGain you can stake your tokens, which means locking a portion of them to support the platform's blockchain operations. In return for staking you receive BitGain tokens as rewards. This is a part of BitGain's proof of stake consensus mechanism that supports its ecosystem.

As a user of BitGain staking allows you to become a validator and strengthen the networks integrity. By staking your BitGain tokens you actively participate in validating transactions and adding blocks to the chain. The more tokens you stake, the higher your chances of validation and receiving rewards.

BitGain has made the staking process simple and accessible for users at all levels. You can easily delegate your tokens to a staking pool to increase your potential for rewards. These rewards are usually distributed in BitGain tokens that you can reinvest, hold or trade for other assets.

Benefits of Staking BitGain

Earn Passive Income: By engaging in BitGain staking program you have the opportunity to generate income from your cryptocurrency investments without the need for trading.

User Friendly: BitGain will develop its staking features with the user in mind ensuring that it is an accessible process for everyone.

Empowering the BitGain Ecosystem: Your active participation in staking plays a role in enhancing the security and efficiency of the BitGain platform fostering its growth and long-term viability.

Proof Of Stake

SCrypto transactions, such as lending and account opening play a role in the network. However, in this decentralised realm where no authority oversees these operations, ensuring the accuracy of transaction data verification becomes essential.

To understand transactions, it's important to grasp the concepts of Proof of Stake (PoS) and Proof of Work (PoW). These consensus mechanisms, often referred to as the heart of crypto transactions are fundamental to maintaining the integrity of the system.

Unveiling the Potential of Proof of Stake

PoS is a consensus algorithm used in blockchain transactions. Participants involved in securing the network, known as validators contribute a portion of their cryptocurrency as a stake. The amount they stake determines their voting power. Notably PoS rewards participants for verifying transactions thereby promoting network security and decentralisation.

Advantages of Proof of Stake

- **Cost Efficiency:** PoS eliminates the need for energy intensive hardware making it more cost effective.
- Scalability and Transaction Speed: PoS enhances scalability and accelerates transaction speed since it doesn't require complex problem solving.
- **Decentralisation:** PoS encourages participation from users to run nodes on the network thus further decentralising it.
- **Energy Efficiency:** Unlike PoW algorithms that consume energy resources PoS is designed to be more environmentally friendly by reducing its footprint.
- **Improved Security:** Staking acts as an incentive for validators to process transactions with honesty. If fraudulent actions occur validators stand to lose their stake.

Another advantage of PoS is its adaptability to changing user requirements and various use cases in technology.

In terms of transaction speed, PoS outperforms PoW. For instance, Ethereum aims to process up to 100,000 transactions per second using PoS, rather than 30 transactions per second with PoW.

By embracing the concept of PoS BitGain is able to enhance the efficiency, security and sustainability of cryptocurrency transactions. In this system, users who invest in BitGain tokens lock their can tokens to help validate transactions. And they're rewarded accordingly. This innovative approach not saves resources but also strengthens the overall integrity of the network fostering a robust ecosystem.

BitGain commitment to PoS demonstrates our dedication to ensuring that crypto transactions are secure environmentally friendly and user-focused. As the crypto landscape continues evolving, BitGain remains at the forefront by providing an efficient platform for all enthusiasts. We invite you to join us on this journey towards a greener future for cryptocurrencies with BitGain.



BitGain Team



Donald Turner Executive Director



Ali Mahmud Khan Co Founder



Oliver Allen Blockchain & Solidity Expert



Lino Antunez Front and JS Expert



1. Donald Turner. Founder And Executive Director

With more than ten years of industry knowledge, Donald held a leadership position at a Consulting firm, where he managed the launch of many platforms. Donald's extensive expertise in product development and understanding of crypto-economics contributed to shaping BitGain's vision and guiding its direction.

2. Ali Mahmud Khan. Co Founder

Ali Mahmud Khan brings a background in DeFi and Tokenomics. Prior to joining our team, he was actively involved in a blockchain startup that revolutionised supply chain processes through contract solutions. Alis's practical experience with Ethereum and various DeFi protocols has been pivotal in driving the growth of BitGain.

3. Oliver Allen - Blockchain & Solidity Expert

Oliver Allen has been actively involved in the field for the last 5 years contributing to open source projects and working as a Solidity developer for a reputable blockchain platform. His expertise lies in smart contract development, security audits and building blockchain.

4. Lino Antunez - Front and JS Expert

Lino Antunez embarked on his journey as a web developer specialising in front-end technologies and JavaScript frameworks. Then he transitioned into the exciting world of blockchain technology focusing on UI/UX design and front-end development for DApps.

5. Daniel Holmes - Advisor

With his understanding of user-focused design, Daniel has made contributions to improving the user experience at BitGain.

As a strategist and someone passionate about cryptocurrencies, Daniel has provided valuable guidance to several blockchain projects on achieving strategic growth and expanding their market presence. Drawing from his background in finance and his ability to identify emerging trends he has played a role in shaping BitGain's market positioning and strategies.

Conclusion

In this whitepaper, we have set out on a journey to delve into the BitGain ecosystem. Throughout our exploration we have discovered the power and versatility that BitGain brings to the landscape.

Our main focus has been, on the UID system, which highlights BitGain's commitment to enhancing security simplifying processes and empowering users. Through methods BitGain offers a robust solution for secure user identification while also making onboarding easier and ensuring compliance with regulatory requirements.

Furthermore BitGain's emphasis on personalisation, decentralised identity verification and cross platform authentication showcases its dedication to improving the user experience.

Apart from its UID system BitGain extends its functionality into domains such as secure transactions, supply chain management, voting systems, governance structures and healthcare records management. These applications demonstrate how BitGain is capable of driving innovation and transparency across sectors.

BitGain is not a cryptocurrency; it represents a transformative force that aims to revolutionise our interactions with digital systems. With its focus on security measures, user empowerment and versatility in addressing use cases; BitGain is positioned at the forefront of the blockchain revolution.

As we look ahead into the future we anticipate growth and influence from BitGain in shaping technology advancements in finance and, beyond.

Thank you for investing your time in exploring the possibilities of BitGain, alongside us. We warmly extend an invitation for you to join us on our venture towards a future that embraces decentralisation and enhanced security.

Legal Disclaimer

General Disclaimer

Investing in BitGain tokens and engaging in cryptocurrency trading carries inherent risks.

Therefore, it is essential that you possess the financial capabilities, experience, and knowledge required to evaluate and participate in BitGain.

Not Financial Advice

This whitepaper is intended solely for informational purposes and does not constitute financial advice. It should not be considered a Product Disclosure Statement or a formally registered offer document under the securities laws of any jurisdiction.

As such, it lacks certain information and independent reviews from regulatory authorities that are legally mandated for supporting investment decisions. We strongly recommend that you conduct your research, and due diligence, and seek independent professional financial advice before making any investment decisions.

If you choose to rely on the information provided herein while making investment decisions, you do so entirely at your own risk.

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Risk Factors to Consider

As previously emphasised, investing and trading in cryptocurrencies entail inherent risks, some of which are within the control of BitGain, while others are external factors. It is crucial that you thoroughly take into consideration the following risk factors before participating in this offering:

- **Internal Risks:** These include trading risk, platform development risk, network risk, cybersecurity risk, and the risk of disruptions within the BitGain ecosystem.
- **External Risks**: These encompass market risk, legal risk, regulatory prohibition, and technology risk, among others.

Investors and participants must be aware that these risks can lead to financial losses, and they should take them into account when making investment decisions.

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Community

Stay updated with all things BitGain by following us on our official social media channels. Our platforms are your gateway to real-time information, engaging discussions, and exclusive insights.

Join our community of crypto and tech enthusiasts, and digital identity advocates. Be part of the conversation that's shaping the future of digital identity and cryptocurrency management.

