

Hampton Metaverse Token

A Pioneer Innovates the Future financial system in Metaverse.

White Paper

01. Introduction

Preface

The Metaverse is a vision that one virtual parallel universe integrates and intertwines with reality, connecting communities, services, products, commerce, offices, entertainment and education centers, and even things beyond our imagination, where new lifestyles and means of communication are inspired to shape. According to the report issued by Brandessence Market Research in November 2021 that “the metaverse market size reached USD 44.69 billion in 2020 and is predicted to reach USD 596.47 Billion by 2027. The metaverse market size is likely to grow at a robust 44.8% Compound Annual Growth Rate during the 2021-2027 period.” The projected growth of demand for Metaverse caught the founding team’s attention and we asked ourselves: how are we going to adapt, integrate into, and shape the future with our expertise and ambitions? What are the most fundamental elements in the Metaverses? How are we going to make a change to our community with a belief that the Metaverse is within our reach and ready to change everyone’s life?

Hampton Metaverse Token (HMETA) envisions that blockchain technology in combination with the idea of the Metaverse and advancement in hardware such as 5G, quantum computing, and other digital infrastructures, assets management will have another revolution in another 5 to 10 years as our current assets management system will no longer suitable for the new system, new lifestyle, and new means of communication.

Creating Metaverses is similar to creating civilizations. The core nodes in a civilization are necessities, education, entertainment, communications, cultures, arts and all kinds of functionalities. We anticipate that there will be millions of developments in those areas, and we will not be one of them. In fact, in all civilization, the most important factor that connects all functionalities while at the same time holds them together and make our society efficient is the invention of trading, and later on a well-developed and defined financial system. In a decentralized universe, we hope to create an efficient and effective financial system that is governed by all users but specifically designed by experts to suits our needs in the Metaverses, and the Metaverses only, for asset management. We refer it as “MetAsset Drive(MAD)”.

HMETA is concerned about solving the following problems with non-token digital MetAsset Drive(MAD):

1. Complicated assets allocation in metaverse requires efficient and effective management to reduce the main network’s transaction pressure
2. Potentially complicated ownership in the metaverse requires a new method of recording and managing digital non-token assets
3. Fragmented and niche assets are hard to maximize values in the metaverse

The intention of managing non-token digital MetAsset through separate IPFS storage could result in two positive externalities that eventually will benefit the entire blockchain transaction/economy as well as contribute to energy saving in real world. We believe that the invention of MetAsset

Drive(MAD) connects the Metaverses with the reality with integrity, and is in compliance with our goal and mission for an eco-friendly blockchain network.

We foresee that our endeavor will make blockchain technology greener and more eco-friendly. The following concerns we currently have with blockchain technology will be resolved naturally with the implementation of our solution in the Metaverse:

1. Over-exploited natural resources, such as energy
2. High transaction costs and long transaction wait time due to inefficient resource allocation

Currently, all the transactions are being made on the MainNet and the transaction and environmental inefficiencies are reflected by the overloaded transaction volume as well as the rising gas fee. It consumes not only all users' time but also exploits the environment with transaction overloads. However, HMETA diverges all the MetAsset transaction the MainNet, supported by Web3 technology, branching out a significant number of non-time sensitive transactions to another server.

The development of MAD will be the choice of the era to bridge the Metaverse and the world we physically live in.

HMETA MAD is designed for the advent of the Metaverse, providing space to efficiently manage non-token digital assets, including NFTs, and assets generated in the metaverse and gaming. It also provides a space for demonstrating and maximizing the value potentials of the booming fragmented NFTs and all other kinds of niche assets in a cost-efficient way.

Based on this vision, Hampton Metaverse Token (HMETA) Platform,

integrated experience and expertise in blockchain, digital security, game development, accounting, finance, and traditional wealth management, is focused on non-token digital niche assets management in the Metaverse, determined to solve problems along with the development with the blockchain technology as well as the refinement of the idea of the metaverse.

Abstract

The whitepaper explains how the HMETA platform works with NFTs and other non-token digital assets in the metaverse and metaverse-backed games.

There are currently platforms designed to manage Defi or NFT transactions, the surging transaction volume triggered an increased gas fee, i.e., transaction cost, and thus inefficiency and waste in digital asset transaction and management. The transaction volume will only increase in the future as we are concurring in the industry that blockchain technology is going to be more widely acknowledged and accepted, which will eventually cause a future reduction of transaction efficiency. Furthermore, DeFi only deals with currency assets while NFT transaction platforms majorly focus on current assets, investment, lending farming, or creating liquidity. Provided we exhausted so many resources on transactions that are extremely sensitive, will we have resources for non-token niche assets transactions that are usually low in value at the moment of the transaction? Non-token assets should be managed differently, as they should be classified by priorities, values, and authorities to fulfill the more challenging requirements and standards. Thus, the inefficacy in Defi and NTF transactions also creates a roadblock for the development of other types of digital asset management, such as the non-token assets management in the Metaverse. Therefore, we diverge the non-token assets transaction from the

main transaction network and build and design a secure, effective, and long-lasting infrastructure solely for this class of assets to efficiently allocate resources to its corresponding asset class, in that we could lessen transaction pressure and costs for all assets. A ecosystem will be developed along with metaverse through providing API to meet all varied needs for these types MetAssets.

The HMETA is determined to be the pioneer of non-token assets management in the Metaverse, focusing on niche assets(metAssets) and on making returns for the investors that partner with us building the financial infrastructures for the future world.

In fact, in the Metaverse asset management is more complicated and challenging. We can not simply record the metAsset as what we do in reality. As we mentioned, the traditional blockchain assets management tends to manage different cryptocurrencies, such as bitcoin, Ethereum, and Ethereum-based tokens. However, in the Metaverse, the assets are not merely currencies, but are everything and everywhere. The Metaverse is different yet running on similar financial rules with reality: in your house, you have all kinds of assets regardless of values, they are yours and you have the ultimate rights of their disposition. When you move from one location to another in a metaverse, you will pack all your physical assets and hire a moving truck to relocate. You may send some furniture to your friends for free, or you may sell something that you don't want the moving truck to move for you; your decision may depend on their monetary and sentimental value to you. How are you going to dispose of an object when the transaction cost exceeds the cost of the object? And you have so many such assets and it could eventually result in a loss.

As in the Metaverse, you may be able to create an infinite number of

identities, which further complicates asset management. For each profile, that's a different you with different assets in a different scenario. You may have a profile for your work meeting, like in Horizon Workroom, and have another profile when you enter a nightclub in the Metaverse world that your co-workers will never recognize you in a virtual reality environment. How are you going to record, track, manage, and transact your non-token assets?

In the Metaverse world, there are also different universes. Facebook, Google, Apple will all have their own universes. As a Metaverse user, you hope to switch between "universes" freely and instantly. Wouldn't you also want your non-token assets to be accessible as well as tradable in different universes with low to no cost in an aggregating platform designed for this class of assets?

Or imagine you are a young artist in your 20s, unknown and broke; however, you are energetic and prolific. You started to create arts that are not worthy of more than \$10, however, you may have the potential to be one of the most admired artists in the world, but you also may not. To better track, record, steward those arts at low or no cost will help these niche assets to be properly preserved in the wait for the appreciation of your artworks. The place of your collection has no time restriction and all the arts and collections could stay in the memory of blockchain timeless.

In another scenario when you have a huge land that you purchased with your friends or even strangers (in a co-ownership?). When one day you decide to exit from the ownership of the land, you also will need carefully maintained, properly recorded deeds to identify the ownership of land.

All the above scenarios will eventually appear with the prevalence of the Metaverse, and we know for a fact our current system will not support those

functions and solve those issues in a proper way. HMETA is working on the solution for this complexity. Our solution will provide the Metaverse users an easy way to manage all digital resources. The HMETA technology reclassifies the digital assets under NFT, Metaverse and Metaverse-backed gaming. We provide a fundamental platform to meet the growth demand and the specific requirements for this digital asset class and make the entire blockchain efficient.

In the Metaverse, we share similar rules with the reality and at HMETA we believe that regardless of their values, they have the potential to be part of your financial statements in real life.

Asset Reclassification in the Metaverse

In traditional assets management, assets are classified by risk-level and liquidity to determine their priority as well as their custody, record and authority. As the Periodic Table of Asset Classes shows that different assets are allocated in their corresponding sections in a systematic method. In the metaverse, the digital assets(metAssets) should be categorized in a similar mechanism, depending on their priority, liquidity, value, authorization, .etc

Periodic Table of Asset Classes

Currency		Riskalyze Risk Number* NR: not rated						Collectibles	
1	5	Equities		Structured Products	Private Equity	Real Estate	Infrastructure	Commodities	Art
Ca Cash Deposits	SB Savings Bonds	CS Common Stocks	SD Structured Deposits	REF Real Estate Fund	In Industrial	Wa Water	Au Gold	NR Fine Art	
HY High Yield Savings Account	TB Treasury Bills	CS Common Stocks	SD Structured Deposits	REF Real Estate Fund	In Industrial	Wa Water	Au Gold	NR Fine Art	
CD Certificate of Deposit	MM Money Market	EF Equity Funds	ILP Interest-Linked Products	LBO LBO Fund	Re Residential	En Energy	CO Crude Oil	St Stamps	
StT Short-term Treasuries	CB Corporate Bonds	DpS Dividend-Paying Stocks	ELP Equity-Linked Products	VC Venture Capital Fund	Com Commercial	Ro Roads	NG Natural Gas	RW Rare Wine	
FC Foreign Currency	FA Fixed Annuities	PS Preferred Shares	CLP Credit-Linked Products	FF Fund of Funds	REIT Real Estate Investment Trust	Ai Airports	Wh Wheat	CC Classic Cars	
Cry Crypto-Currency	JB Junk Bonds	TS Treasury Stock	MLP Market-Linked Products	MC Mezzanine Capital	RL Raw Land	Rr Railroads	Cn Corn	RH Race Horses	

Liquidity: The darker the borders, the less liquid the financial instrument.

Risk: The darker the color, the riskier the financial instrument.

Given our understanding of the metaverse, we redefined and reclassified assets in the Metaverse, as illustrated below. Our proprietary platform and algorithm, which is built on the top of decentralized blockchain technologies with strong security and integrity, will optimize and prioritize transactions of different classes of assets in an effective way.

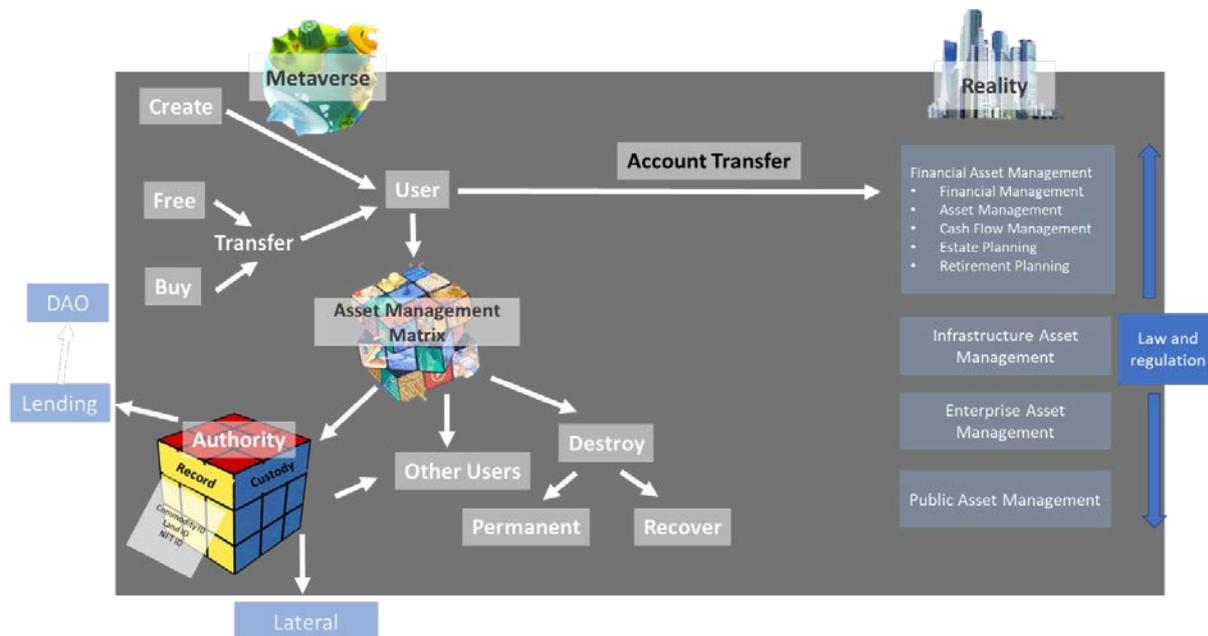
Redefinition of non Token digital asset:



02. Solution

HMETA reclassifies the metAssets in a more logical and scientific manner and

manages it in an efficient and effective way. HMETA platform is focusing on authority, custody and record of the NFT, metAssets in Metaverse and gaming etc.



The main features of HMETA are:

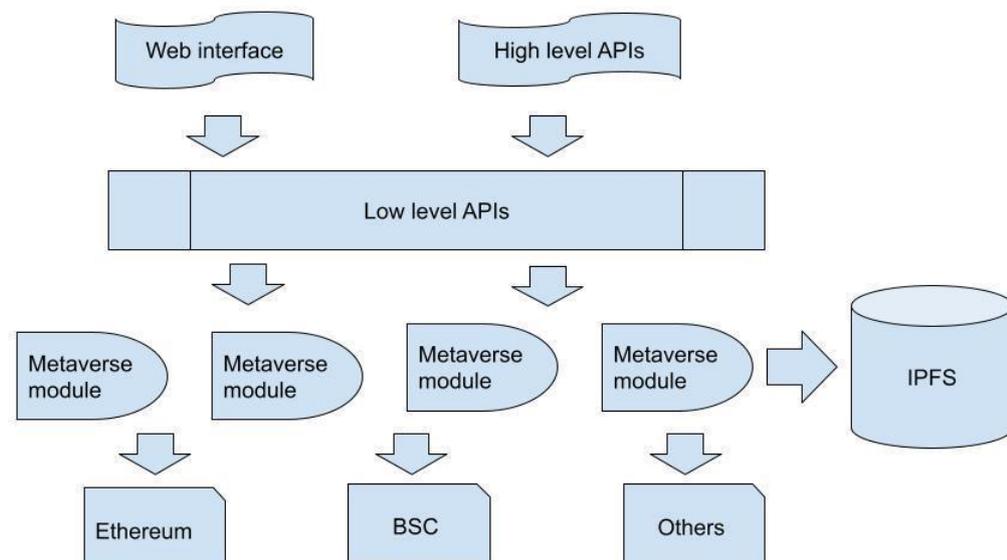
- Professional management of metAssets of Metaverse to release the stress of the entire blockchain traffic and the gas fee.
- Special design framework to segregate the digital asset(metAssets) of Metaverse in a way that is easy to display and accessible, hard to be hacked.
- HMETA is able to verify the metAssets of Metaverse and also, provide the niche market digital asset free address to locate.
- Provide an effective solution for the niche market of Metaverse. A mega potential treasure market in the coming future requires a more logical management in an ecosystem environment for less abusing resource
- digital succession of Metaverse.

03.The Design of Hampton Decentralized Solution

To build a decentralized asset management platform, we will take advantage of blockchain technology. On top of it, we build our own architectural and resource allocation algorithm to cover all types of functionalities of asset management.

With the platform, the users and developers interact with the APIs of platform infrastructure. The life cycle of each transaction is automatically managed by the platform.

The services will be built on top of the platform, which is similar to the AWS usage in the software projects. It is designed to be scalable, reliable, transparent, consistent, and simple.



Two-layer architecture

The platform is separated from the service layer for the extensibility.

The platform will finish all core functionalities like smart contracts, storage management, security management, lifecycle management.

The service layer will finish the user interfaces, which provides user friendly interface and basic business logics. This layer will communicate with the platform layer with highly privacy considerations. The services include built-in services and third-party services.

For example, in the beginning, we will provide the very fundamental asset management functionalities (e.g., Identity management, asset initialization), but later on more functionalities can be added on. It will provide flexibility for the platform. All these services are either in smart contract format or on top of decentralized storage systems like IPFS.

The framework of decentralized asset management will be designed user friendly, extensible, and highly secure. The security solution will be discussed in the next section.

The fundamental functions

Identity management module

For privacy, the PII (Personally Identifiable Information) information will not be on-chain, unless the users agree on it. For security compliance, the PII information should be revocable even if the users agree to expose it. Therefore, we don't allow any PII information on-chain. Then a reference will be used to refer to PII which is stored off-chain.

In Metaverse, PII information is not necessary, but we do support it in case the developers require this functionality.

User policy management module

The policies will be programmed as smart contracts. We will have built-in policies and customized policies.

Developers can use this module for group management. For example, a game studio will manage the users in a group as they have similar attributes.

Metadata management module

We use metadata to describe the users to help the management. The metadata decides the attribute and categories of user assets. The related information includes universes in Metaverse, applications, origins, categories, and current status.

Asset management module

This includes token management, NFT, non-NFT assets, and payment components. In the beginning, we support a flat structure of all these assets, but then we will support customized management, for example, the users can define their own categories for assets and move freely in between.

GUI module

This provides a user interface like a web page for users to interact with fundamental functionalities. Even though we may provide the web page for easy

access, the users can build the interfaces on their own with our open-source code.

The GUI can be managed with GitHub Actions which makes it easy to automate all the software workflows, now with world-class CI/CD, and build, test, and deploy the code right from GitHub to make code reviews, branch management, and issue triaging work the way we want.

The design principles

- Access freely
- Staking for user safety
- Policy public auditing
- Community transparent
- Highly security

Third-Party Chains

IPFS

IPFS is a decentralized file system that takes advantage of technologies like DHTs, the Git versioning system, and BitTorrent. A P2P swarm is created for the information exchanges of IPFS objects. The crypto-graphical authentication for IPFS is known as the Merkle DAG.

A global namespace is used in IPFS and then content-addressing is used to find each file.

IPFS is a decentralized system instead of centrally located servers. Each

node holds a portion of the overall data, and in this way, the storage system is resilient and easy to share. The files are shared by the content addresses, and then users can search and request the content from any node with the Distributed Hash Table. IPFS can also use a gateway to support the HTTP protocol.

We will use Pinata.cloud, a kind of Pinning Service to make sure the storage is spread throughout the globe and use cryptography technology to ensure confidentiality and integrity.

Ethereum

Ethereum ERC721 is a standard for the ownership of non-fungible tokens and each token is unique such as physical collectibles.

BSC (Binance Smart Chain)

BSC is EVM-compatible and therefore Ethereum ERC721 is also supported in the BSC chain.

04. The Security Solution

Confidentiality, Integrity, and Availability are the highest concerns of all platforms. We differ from the others with designing to maintain the highest level of security for users and developers.

Security design considerations :

- Encryption levels
- Authentication and Authorization
- Privacy violation
- Role and privileges
- Single point of failure

- Fault-Tolerant

User authentication

We support on-chain authentication and off-chain authentication. We allow the services to have their extra authentication methods on the top of the platform.

The end-users can communicate with the services with TLS protocols, and we support RSA and ECDSA authentication for the server sides. This is one side authentication, and the users don't need a client certificate.

The services will communicate with the platform with private key authentication.

Communication authentication

The data transmission safety will be protected by communication authentication. We require the services to use ECDHE/TLS1.2 or ECDHE/TLS1.3 to achieve high-security standards. For RSA, the security level is over 2048 bits, and for ECDSA, the security level is over 256 bits.

ECDSA is preferred, as with elliptic-curve cryptography, the bit size of the public key of ECDSA is about twice the size of the security level. Therefore, the ECDSA can provide high standard security along with a short key size.

Authorization

The data are accessed based on ACL (Access Control List) policies which define roles and privileges.

Encryption

The user data and sensitive information should be encrypted with strong

security levels.

Auditing system

An audit mechanism is used to audit the whole system for not only built-in services but also customized services.

05. The Risks

Slow Community Adoption

To improve, we will keep significant portions of tokens for incentives for the blockchain community. And also, we will put investment on the marketing campaign.

Smart contract mistakes

The smart contract will be double-checked and then audited by third-party expertise.

Security concern

Security is the most important focus in the Hampton decentralized system. We will also bring top-notch security experts in the team to audit the related security issues.

Privacy concern

We will follow the related compliance like PCIDSS (Payment Card Industry Data Security Standard), GDPR (General Data Protection Regulation)

Regulation concern

When we release the token, we will follow the investment laws of countries, e.g. KYC etc. At the same time, we work with our lawyers to ensure

all conduct follows compliance. For example, we won't allow personal investors from the USA and China unless we have successfully released the products.

06. Hampton Token usage

The token will be used for asset management transactions and staking. Even though we are planning to support USDT and ETH as well, the token will be given a significant incentive for communities to use.

We plan to use these tokens to attract and recruit community developers and incentivize the developer community through carefully designed bounty programs. For example, when our prototype releases, we plan to open register access for community members to join.

Also, we are in close talk with a leading gaming company, which is interested in conducting a pilot project with our project potentially. We will use some community tokens to form strategic partnerships with game studios or other Metaverse development teams.

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