5th Dimension Whitepaper:

Overview:

Supported by Ethereum Blockchain, the 5th dimension is a virtual reality platform where users will be allowed to create, experience, and monetize the applications. Users will be able to own all the creatures from different species and planets in the 5th dimension according to their likings and what represents their personality the most. 5th dimension has a story of its own but in the end, it is up to the users how to bend and shape that story.

The Non-fungible token designated for 5th Dimension is known as 5D to use as a resource for mint, buy and store the digital collectible produced by 5th dimension in the virtual world through Ethereum smart contract.

5th dimension is the epitome of decentralized technology. It has been observed that more people are joining the virtual world daily and this number is increasing rapidly. The 2D world in the past had become a go-to place for people to use whenever they are free or want to spend some time online. Most of the 2D interface users are upgrading to 3D interface, so they can interact with others online in the same way they interact in the real world and get real-life experiences without even leaving the room through the help of their digital avatars.

5th dimension is not in any way controlled by any centralized authority which means there is no single body, organization, or individual that can govern the changes, approve the content, oversee transactions, modify the rules, or approve or restrict anyone's access from the virtual world on its own. 5th Dimension works on the principle of DAO and functions according to the votes of the community.

Contents

1.0 Introduction:

5th dimension offers a platform that powers an open to all shared virtual world, simply known as Metaverse on ERC-20 Chain. It includes a Decentralized ledger for each and every transaction, it also includes smart contracts, a protocol for describing the content, and a peer-to-peer network for user interactions.

1.1 Reason to Build a Metaverse:

Men are social creatures, which is indeed somewhat true and this nature of humans gave rise to the development of social websites like Facebook and Reddit, which enable users to come together, interact, share messages, view, and play games. These social networks practically gave birth to online communities, groups, and gaming companies. As the platform functions without any boundaries and can be accessed by people globally. Therefore, game lovers from different areas of the world were able to make a large global gaming community.

The above platform belongs to world wide web 2 although the world is upgrading to web3. Furthermore, these platforms were controlled by an authoritative body that took most of the decisions for all the changes related to the game instead of the community.

5th dimension mission is to develop a metaverse on web3 that will be completely free from any central body and all the decisions will be made by the community. We took the decision for 5th Dimension Metaverse development because it is an emerging topic in the technological world, the Metaverse is getting more popular day by day and its popularity started to rise with metaverse integration of Facebook, Instagram, and WhatsApp.

Metaverse enables users to communicate and reach people via avatars which will give the people a feeling of actually being present, without the hassle of actually going to the event, it is essential with the need of time as investors see the world as a global; marketplace and trying different ways for Metaverse integration which can help them to offer their services from just one room to thousands of people from different regions at the same time.

Metaverse development provides huge opportunities for companies and individuals to fund capital for their businesses and introduce them in the marketplace for a big return on investment. It includes augmented and virtual reality and artificial intelligence, you can not only earn through revenues but also through metaverse NFT which will be tokenized collectible for the user.

1.2 An Integrated World:

Avatars from different worlds through stargates have made the 5th dimension unique from different worlds. All the avatars are related to their respective world and portray the basic characteristics of their planet.

The interconnected realm of collective planets as a legion allows users the creation of original content and territories in the different planets pertaining to the theme of those planets in the form of domains. Each domain will consist of a limitless amount of hyperlinks to other contents

The foundation of various regions gives admittance to designated traffic for content creators; it empowers the disclosure of themed encounters for the end-users. The end-users can go through areas in the 5th dimension and connect with applications that they coincidentally find.

This disclosure of Stargates will help users to escape into the world of their choice. However, considering the reason for limited planets and royal avatars, the users will be able to purchase their characters in high-traffic areas and enable them to develop an auxiliary market around the metaverse of the 5th dimension.

1.3 Bases of In-world Economy

5th dimension goal is to offer a value proposition to the developers on the economic activity between applications and users, simply meaning they will gain profit by the monetary collaborations between their applications and clients. However, three things as coins, Products, and Services must be permitted to trade to allow monetary collaborations, without the trade of the mentioned three things economic interaction will not be possible.

5th Dimension will coordinate a center framework that permits worldwide, moment, and practical methods of payments between any two disparate parties online using Digital currencies because they allow the seamless and transparent

mode of the transaction between two users, it is not only immutable but highly secure and even harder to manipulate anyway.

5th Dimension team is fostering a prearranging framework that empowers engineers to program the cooperation among clients and applications to provide the service on the 5th dimension platform. The pre-arranging framework takes into account various information stream models from simple local effects and conventional client-server to P2P interaction.

Connections in light of state channels but it runs solely on the client side however the developer who will be responsible for programming will capitalize profit from the accessibility of quick, modest micropayments, through Ethereum based Smart contracts, they can also use smart contracts to capitalize on blockchain Storage, certain fair games and many other things.

We have implemented a specific framework to function as an identity system because the stable and fixed content with no obvious goal can easily be replicated. The identity system is set in the 5th Dimension so the user can engage in social agreements that perceive unique manifestations. This framework will cultivate the trading of virtual products through financial motivators that will guarantee the steady and regular creation and distribution of avatars, items, and scripts. It will also contain cryptographic signatures that will facilitate the firm authorship and allows the users if they want to follow and confirm a creator's assent

1.4 Decentralization and Staking:

5th Dimension is completely Decentralized and uses Non-Fungible Tokens to acquire true ownership for players and collectors. It is designed, based on technical staking consisting of a Decentralized Cloud – which is a crucial aspect of our Metaverse.

Also, Staking is open to all the users who want to participate, Staking of 5D Tokens will be allowed to earn rewards, and the users will be able to stake 5D as Non-Fungible tokens by depositing it into the staking pools. The staking pool will help them to earn points and rewards that will help the users to generate some form of passive revenue.

1.5 DAO:

5th Dimension works on the principles of DAO "Decentralized autonomous organization" and does not revolve around central leadership. It will be completely autonomous. The decision will be made by the community and the community possesses the power to demand or reject any change or upgrade related to the platform. This phenomenon will be made possible through voting by the community. The community will be able to make decisions concerning our Metaverse and all related aspects, ==the decisions contain but are not limited to floor-sweeping==. Through Dao, we will include decisions for using ==big chunks of the fund, road map extension, and== tokenomics.

1.6 Use Cases:

1.6.1. Community Wallet:

5D will have its own community wallet, which contains funds to be allocated. These funds will be used for different purposes to sustain 5th Dimension community and also to upgrade the platform with advanced features. The funds can also be utilized for the activities like floor sweeping, and to reinvest in the project that will facilitate its growth. These Funds will be granted to all the other needed areas for the betterment of our community.

1.6.2. AR Integrated Comic Book:

We will use AR-integrated technology to provide cool Comic books of each Avatar to NFT collectors, the AR-integrated Comic books will be made available via mobile application in which the user will be allowed to display different characters IRL in the book, whenever you complete coloring a character or finish a dotted puzzle. The AR-integrated book will be issued through online retail platforms.

1.6.3. Short Videos and Animation services:

Another utility of 5th Dimension will be illustration-based animated videos of all the Avatars from every planet. This video will be made following the storyline of comics. The video will display the personality of the characters in a much deeper way. The animated videos will be published in the form of Shorts and reels on different platforms, for example on YouTube and Facebook as

Shorts, on Tiktok, and Instagram as Reels. These shorts will demonstrate the different activities of all the characters.

1.6.4. Real-life (Physical) Utilities:

We will launch real-life merchandise of all the characters of 5th Dimension. Furthermore, The physical representation of all the characters in the form of toys will also be launched in the real world.

1.6.5. Other Use cases:

The use cases of the 5th Dimension will not only be limited to the above-mentioned utilities. Instead, other use cases will also be introduced and launched in the future pertaining to the needs and demands of our community.

02 Architecture

5th dimension Protocol consists of three layers Namely the Consensus layer, the Content Distribution Layer, and the Content Files.

2.1 Consensus Layer

5th dimension will contain Ethereum-powered Smart Contracts that will store every minor detail on a ledger across the network of blockchain. Our non-fungible digital assets are called Avatars and each avatar has its own digital address and a reference that will take users to the content description file. These users will be able to buy Avatars through 5D tokens, these tokens will function as an intermediary step for owning an Avatar

2.2 Content Distribution layer:

Description of files, rendering of the content, and distribution of content use a decentralized storage system, and the description of your files recovers from the smart contract. Such a decentralized distribution system helps the 5th dimension to progress without any centralized server infrastructure. The 5th dimension will cease to exist if such technology remains part of it.
All this allows the 5th dimension to shift the cost of the running system. It gives power to the 5th dimension for existing as rules and regulations-free environment.5th dimension has a great censorship resistance, allowing the

authority to change rules and regulations, this makes the user experience amazing since they would be allowed to take part in whatever they like. Since your distributed files require hosting, the host and bandwidth required to serve this content have a significant cost. However, we are currently working on different solutions to counter this problem.

Your content that will be stored contains a reference to 3D meshes, textures, audio files, etc. then there is a scripting entry point that contains enabling applications and animations, the timing and frequency of the sound being played.

It will allow users to have P2P interactions, the client will be connected to a server that bootstraps user-to-user connections, enabling users to use voice chat and messaging.

2.3 Real-Time layer:

Through the real-time layer, users will be able to communicate with each other by creating peer-to-peer connections, such as buyers and sellers of avatars, and that too without a centralized server. This user experience will be a social experience for our avatar owners. For advanced features, such as a voice chat between multiple concurrent users or network traversal services, there will be a significant cost, but micropayments can be used to cover operating costs.

The social experience in the 5th dimension will include owning avatars owning music playlists, voice chat, messaging, and interactions.

To coordinate the bootstrap of peer-to-peer connections, users will not be able to see each other in the activities provided.

2.4 Payment Channels

For all the purchases, crypto-currency is the mode of payment that will be used to avoid any risks of theft, all the transactions or activities are to be done with the use of crypto-currency

Again, this will contain significant costs including hosting content, serving it, and running P2P protocols. Our low-trust hub-and-spoke payments networks allow for fast and low-cost transactions.

2.5 Identity system:

One kind of identity system is ownership of an avatar, you will be provided with credentials of your own. Items and things related to your avatar are also part of the identity system.

5th dimension can use decentralized identity systems to create a layer of ownership over these avatars.

The system will allow users to easily create their own signatures and human-readable names, and it will be made easy to distinguish and differentiate between them.

3.0 Economy:

As we have already discussed how the world is shifting towards Metaverse, web3, and cryptocurrencies, therefore we will not dive into this topic again for the sake of keeping this paper simple and concise. In the section on the economy, we are going to discuss our Non-Fungible Token which is 5D, and its utility, we will also discuss how 5d will be issued and its allotment that will help bootstrap the utility of the 5th Dimension network.

3.1 5D Token:

With the introduction of a bundle of new worlds, we are going to launch more than 100 Royal Avatars belonging to different planets with 900 common Avatars. For each and every avatar, and in-world purchase, we are introducing a solo Non-fungible Token known as 5D.
The utility of 5th Dimension depends on the bases of how efficient it is in hosting applications, rigid identity system, and perceived attention. 5th Dimension will enable Developer and content creators to Demand the avatar of their choice that they believed will relate to their target audience more, We have established an exchange rate system in which the user will be able to acquire avatars through a certain number of 5D tokens, our exchange rate is (1000 5D= 1 Avatar). However, 5th Dimension has both common and Royal Avatar where both of them have different features and significance. Therefore the rate can be changed or fluctuate of particular avatars depending on the while traffic and

adjacencies in the secondary market. Furthermore, the purchasing of goods and services in the virtual world through 5d will create and enhance the utility value of the token.

3.2 Strengthening the Network:

 As we have already discussed above, that 5D token will be used to buy Avatars therefore, now we are going to shed light on how we are going to strengthen our community network. In the initial phase, we will encourage developers and content creators to earn rewards by setting up shops in the legion of the virtual worlds of the 5th Dimension. The platform will hold contests in which the creators can feature their art, music, games, or any other applications representing their ability and creativity. Through this contest, the creators will get prizes fortuitous whenever they reach a milestone. Furthermore, to attract and conserve new users, the platform will provide them with some allowance to empower them to take part in the economy. In addition to that, the financial incentives will encourage bootstrap the utility value of the network till the time the platform is able to attract users and developers independently.

4.0 Challenges:

4.1 Decentralized Content Distribution

5th dimension is introducing decentralized content distribution for the user through P2P content distribution. P2P provides numerous advantages and permits users to share data without the need for any local server infrastructure. However, the advantages can not be acquired without any challenges. The two main challenges that the platform is having due to P2P network retrieving from DHT or P2P storage system is a little slow; the slow download speed is becoming a contributing factor of taking a little too much time to load the experience. However, we look forward to solving this issue with the help of partner companies.

4.2 Scripting

Scripting is also an exciting challenge because it is the crucial aspect of creating one of the best experiences in the 5th Dimension. Therefore the APIs must be highly secure, so the clients can hold private keys and sanction micropayments all the time.

4.3 Content Curation:

We want to make a platform based on reputation; therefore, our goal is to filter content and eradicate content that consists of pornography, violence, or gambling. Although filtering the content of a large audience itself is a challenge; therefore, we will also allow users to choose providers from a Whitelist/Blacklist that helps in tracking the type of content served on our platform.

5.0 Summary:

5th dimension is a decentralized virtual platform that allows developers and creators to produce and monetize their content. 5d will be used as a non-fungible token to purchase both Royal and common Avatars. The content creation and applications to be built, with incentives and rewards for users, will become the reason to drive users' attention and traffic. It will also be a contributing factor to generating revenues and profits for the creators.