



Web3D
web3.0 2022

Web3D

Refactoring the Internet Transport Layer Protocol

WHITEPAPER

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1. BACKGROUND

We are refactoring the internet transport layer protocol, we are redefining the internet. Every user and every terminal is no longer just the bottom of the food chain, but should be the provider and co-builder of the Internet and services.

The Web3D ecosystem is a series of infrastructures for building a decentralized Internet. It is a distributed intelligent metaverse built on the physical network layer and the ISP network layer. Web3D ecology uses technologies such as blockchain, distributed network and asymmetric encryption to provide a series of distributed services, such as automatic proxy service, multi-layer anonymous network, IM instant messaging, pollution-free DNS resolution, and even accelerated distribution of CDN content and DDoS defense, etc.

Using W3D, the only token in the ecosystem with a stable value scale, as an ecological "currency" incentive, is a growing distributed Internet infrastructure built with the participation of unlimited nodes around the world, making the Internet more open, more equal, More stable, more efficient, safer and more free. The issuance method adopts the innovative POD algorithm (Proof of Destroy) to destroy or mine.

Our philosophy: yearning for freedom. Freedom, openness, equality, and sharing are not just personal values and ideological preferences.

These things are written into the basic protocol of the Internet and are the inevitable result of the design of the early geniuses. It is not ideology and administrative relations that make a network so big today, but a series of basic communication protocols.

An email sent from Microsoft can be delivered to Gmail because there are many intermediate servers that undertake the delivery task. This delivery is neither a commercial task nor an administrative task, it does not bring direct commercial benefits, nor does it exist any administrative affiliation. The existence of this open network, just because you want to participate in this game, you must accept the open rules of the game.

The giants on the Internet, such as Google and Facebook, are all beneficiaries of the Internet's open architecture. Whether in terms of benefiting all living beings or in terms of providing more business opportunities, the open and free spirit of the Internet will indeed benefit us a lot.

Maybe not everyone agrees with this concept. In some areas, for some reasons, network services are more like a large local area network, not as interconnected, open and inclusive as the original design of the Internet. As a group of technical geeks, we , although understandable, but we are more looking forward to enjoying an Internet infrastructure that is just as designed, free, open, equal, and shared.

Like you, our team members also need barrier-free, secure, stable and smooth network communication services to explore the world through Google and Wikipedia, share their work and work with friends around the world on Facebook/Instagram Live, see a lively and colorful world with YouTube/Twitter, you can not only learn about the latest technological trends, academic research, and cutting-edge information, but also communicate, discuss and collaborate freely.

The Internet belongs to all those who build and use it. The future of the Internet should not be kidnapped and controlled by any centralized organization. The billions of users who use and participate in the Internet around the world, as well as the experts who build and maintain the Internet, should have the freedom to browse and be free the right to speak.

We are taking some actions to create a borderless, barrier-free and more growing distributed Internet infrastructure through a series of technologies and standards to provide the basis for user mutual assistance services, including not only the most basic interconnection services , and also expect to build distributed and secure content distribution, address resolution, security protection, and even shareable computing and storage services through mature and innovative technical methods.

Of course, all of this starts from barrier-free interconnection. I look forward to your blessings and support. All people with lofty ideals are welcome to participate in building a healthy basic ecology.



2. DESIGN CONCEPTS AND DESIGN PRINCIPLES

Avoid Gimmicky Innovation

Although packaging some fresh concepts is indeed easier to catch the eye, innovation for the purpose of packaging is not what we want. Innovation-driven development is a complex system engineering. In the Web3D system solution and ecosystem, we advocate and Encourage innovation that can solve real problems, improve efficiency, reduce costs, and solve problems.

Prioritize the use of safe, proven technology solutions

In the fields of distributed inter-node network communication, encryption and privacy protection, and blockchain technology, many predecessors have completed a lot of meaningful work, and many of them have mature technical solutions that have been actually verified in business scenarios. and stable performance.

For example, DHT technology represented by S/Kademlia DHT has completed multiple generations of updates, intranet penetration and node discovery and online and offline update technology, reverse proxy technology, distributed file sharing system represented by BitTorrent, directed Acyclic graph DAG, Merkle Tree, asymmetric encryption and decryption technology represented by RSA /ElGamal / ECC, virtual



private network and proxy technology represented by Open Web3D ShadowSocks(r), SSL/TLS and IPsec Represented by the secure transmission technology, chain block data structure, etc., these are very valuable experience and resources.

Technology serves industries, scenarios and specific applications

For practical purposes

Web3D will give priority to selecting mature and stable technical solutions, properly integrating and innovating, serving practical specific applications, and solving specific problems in real scenarios with low cost and high efficiency.



3. DECENTRALIZED STORAGE

Web3D relies on decentralized storage to store your files on the web for free. Decentralized storage is a technology for storing data that replaces traditional servers and uses a distributed network with many participants providing storage capacity. The model inherently builds in redundancy that provides resiliency against failures and attacks, as well as enhanced performance due to geolocation provided by a large network of distributed storage providers. While you don't need to understand decentralized storage to integrate Web3D into your applications and services, if you're curious about what's going on behind the scenes, read on.

Broadly speaking, most of today's networks operate using what is known as location addressing. Location addressing retrieves online information from a specific location on the web—that is, from behind a URL.

<https://example.com/page-one.html>

However, there are some key problems with this approach. Location addressing is centralized, meaning anyone who controls the location can control the content. The controller can change the content, replace it completely, or just take it away. This means that location-based addresses are vulnerable to attack, exploitation, and loss.

Part of the approach to decentralizing this traditional way of operating the web requires the implementation of a new form of addressing: content addressing. Content addressing is the technique of issuing a Content Identifier (CID) to each piece of data, which is a token derived directly from the content of a file using an algorithm that always generates the same key for the same content. Using content addressing, files can be queried and retrieved based on their content rather than location—a major factor in freeing the web from centralized content control. However, content addressing is only part of the solution.

Web3D uses CIDs generated by IPFS (Interplanetary File System) to enable content addressing for all data stored on its network - however, just because a file has a CID doesn't mean the file is guaranteed to exist forever. In a well-functioning decentralized system, participants all need to agree to be good participants and provide reliable storage capacity. For this, Web3D uses the Filecoin network. The Filecoin network and its namesake token FIL (or \mathfrak{f} for short) were created to incentivize storage providers on the network to agree to storage transactions. These deals stipulate that a certain amount of storage capacity will be provided for an agreed period of time to ensure the second part of the solution: content persistence.

3.1 For Verifiable Content

Leveraging the Filecoin network to store data stored using Web3D ensures that the content is available for retrieval, ensuring that the content-based addressing provided by IPFS remains resilient over time.

Filecoin uses a variety of approaches to accomplish this mission, including novel cryptography, consensus protocols, and game-theoretic incentives—but perhaps the most important of these is Filecoin's unique approach to verification of storage.

Filecoin's storage verification system solves a previously intractable problem with decentralized storage: How do storage providers prove that they actually store data for what they say they are over a period of time? Filecoin's proof algorithm is responsible for this verification:

Copy proof Prove that a given storage provider is storing a unique copy of the customer's original data.

Time and space proof Prove that customer data is stored continuously over time.

In addition to this proof system, the Filecoin network relies on game-theoretic incentives to deter malicious or inadvertent activity. In order to become a Filecoin storage provider, all potential providers must provide collateral in the form of FIL when agreeing to a storage transaction. Additionally, any storage provider that fails the proof-of-space-time check will be penalized, lose a portion of the collateral, and ultimately be unable to offer storage to customers again.

3.2 Content addressing

Web3D's free, decentralized file storage relies on content addressing to find, reference, and retrieve files on the web. Content addressing is a technique for organizing and locating data in a system, where the keys used to locate content come from the content itself, not its location. While you don't need to understand content addressing to integrate Web3D into your applications and services, read on if you're curious about what's going on behind the scenes. Basically consider what happens when you resolve a link in Web3D /docs /concepts /content-addressing. First, your operating system queries a global shared key-value store, which is divided into many domains -- you probably know this as the Domain Name System (DNS). DNS returns an IP address that your NIC can use to send HTTP requests over the network, and the site's naming convention translates the key /concepts/content-addressing into a response payload.

The problem is that the components of the address Web3D/docs/concepts/content-addressing are mutable, which means they can change over time. In a web environment, everything is mutable and dynamic, that's how it's always been. So link failure is just something we all learn to live with.

CID: globally unique regardless of location

However, due to content addressing, link failure may be a thing of the past. Content-addressing systems like Web3D are like our

key-value-based DNS, but with one notable difference: you no longer need to choose a key. Instead, the key is derived directly from the file content using an algorithm that always generates the same key for the same content.

Therefore, we no longer need to coordinate among multiple writers by splitting the keyspace into domains and locations on the filesystem. There is now a generic domain: the domain of all possible values. If multiple people add the same value, there will be no conflict in the keyspace. They each get the same key from this put method, with an added benefit: improved availability and performance for retrieval over the network. This makes our key position independent. There is another important consequence: each individual key is a unique signature of the data itself, ensuring the verifiability that the key matches the content and that the content has not been altered.

This type of key is called a content identifier (CID). Once you know the CID of a file on the Web3D network, you have everything you need to find the file on the network and return it to you. Here's a JavaScript example of a full storage and retrieval round-trip using Web3D:

```
// get uploaded files from a form
const fileInput = document.querySelector('input[type="file"]')

// store files and obtain a CID
const rootCid = await client.put(fileInput.files)

// retrieve files using the CID
const res = await client.get(rootCid)
const files = await res.files()
for (const file of files) {
  console.log(`${file.cid} ${file.name} ${file.size}`)
}
```

Web3D CIDs

Web3D makes its free, decentralized file storage work using CIDs with the help of IPFS and Filecoin for locating files and ensuring they are always available.

Content addressing is the basis of the peer-to-peer hypermedia protocol IPFS (Interplanetary File System), which Web3D uses to locate files. When Web3D stores your data on IPFS, it can be retrieved from any IPFS node that has a copy of that data. This can make data transfer more efficient and reduce the load on any single node. When each user gets a piece of

data, they keep a local copy to help other users who might request it later.

In addition to making it easy for Web3D to import your data into the content-addressed IPFS network, it uses the decentralized Filecoin storage network to provide long-term persistence for your files. The Filecoin network incentivizes participants to provide storage space for files on the network - see the Decentralized Storage Concepts Guide for more details. By combining IPFS and Filecoin storage into one easy-to-use service, Web3D makes it simple to store, locate, and retrieve files on a decentralized network.

Using content addressing to locate files, rather than the traditional Web's location-dependent addressing methods, addresses several key weaknesses of the traditional Web:

Content addressing solves the problem behind link failure - variability in location-dependent storage systems - by using a hashing algorithm to generate a unique CID for each file that can be used as a lookup key for the file rather than the URL.

In addition to ensuring that files are not lost when moved, content addressing ensures that users who intend to retrieve a particular version of a file are guaranteed to retrieve that version as long as it exists anywhere on the network.



4. NFT STORAGE EXAMPLE

4.1 Why choose Web3D?

Web3D makes it easy to follow NFT best practices, maximize the value of the NFTs you're minting, and minimize the long-term overhead of NFT minters and owners maintaining NFTs

One of the great features of NFTs is that they can reference off-chain data, saving you the cost of storing images, videos, and other large NFT data on-chain. An example of this is the ERC-1155 standard, which defines where you should refer to off-chain data via URIs:

Metadata: In the transaction itself, you need to include a URI to a JSON file that contains the metadata for the NFT

Image: The standard defines a field in the image metadata whose value is the URL to the image associated with your NFT

Additional data: The standard defines fields in the properties metadata, which includes another JSON object that allows users to define custom fields that typically reference URLs to other off-chain data (such as videos)

Best practice is to use a URI that contains the IPFS Content ID (CID), which is a reference to the underlying data itself (i.e. a hash of the data).

This makes it clear what data corresponds to what NFT - the CID is an attribute of the data itself. If two people disagree on a specific NFT and its contents, you just need to check which one corresponds to the correct CID. Using Web3D's library allows you to easily calculate the CID of NFT data locally.

Using Web3D also makes it easy to store data on the public IPFS network. The beauty of IPFS is that it has no opinion on the physical location of the data, as it references the data by its CID. Therefore, IPFS guarantees that if at least one copy of the data is broadcast to the network (whether stored on a storage service, decentralized storage, or on a local computer), you can get a copy.

Web3D is a long-term repository for NFT data, which is broadcast to the IPFS network and stored on Filecoin in a trustless manner (the vision is to fully decentralize itself as a service). The storage and retrieval infrastructure behind Web3D is designed and will increasingly leverage innovations from Web2 and web3 to deliver the performance end-users expect.

4.2 IPFS and Web3D to the rescue

That's why Web3D gives you an IPFS URI instead of an HTTP URL. An IPFS URI is a unique identifier for the underlying data based on a cryptographic hash of the data itself, not where the data resides today. This way, you can easily prove that a piece of data is actually part of your NFT! Additionally, as long as a copy exists somewhere on the IPFS

network (on a public IPFS node, on Filecoin, or even on your own computer running an IPFS node), you can download a copy of that data.

[Click here to read more about content addressing capabilities!](#)

```
import { NFTStorage, File } from 'Web3D'
import { pack } from 'ipfs-car/pack';

const apiKey = 'YOUR_API_KEY'
const client = new NFTStorage({ token: apiKey })

const metadata = await client.store({
  name: 'Pinpie',
  description: 'Pin is not delicious beef!',
  image: new File([/* data */], 'pinpie.jpg', { type: 'image/jpg' })
})
console.log(metadata.url)
//
ipfs://bafyreib4pff766vhpbxbhjbqqnsh5emeznuvajj4z2iu533cprgbz23m/metadata.json
```

There are other ways to get data into IPFS and help ensure it stays healthy (for example, adding data to your own nodes and/or using pinned services), but Web3D simplifies the process for you. You upload data using a simple API, and behind the scenes, the service makes the

data available on IPFS and puts a physical copy of the data redundantly into the Filecoin network, a decentralized storage network that "speaks" the IPFS CID!

The Filecoin network is an essential part of any decentralized storage system. Independent storage providers must periodically cryptographically certify that they physically store your specific data for a specific period of time. When they submit these proofs to the network, other nodes verify them, and this is the end result on the Filecoin blockchain. Thus, anyone at any given moment can trustlessly verify whether a particular piece of content is persisted, how many copies are on the network, and with whom it is stored. Read more about Filecoin proofs [here](#).

When storing data on Filecoin, the storage "transactions" you enter have a limited duration. The Web3D service currently renews transactions for you to ensure that your data transactions never expire. However, improvements are also being made to ensure multi-generational persistence without relying on Web3D, whose mission is to store all NFT data as a public good. Filecoin's unique combination of verifiable proof-of-storage and open market protocols allows for solutions that ensure persistence through smart contract interactions. The current plan is to create a "data DAO" that funds smart contracts to permanently ensure that copies of data uploaded to Web3D exist, and create new storage transactions when storage transactions expire or the copies disappear. Use NFTs.

But since more replicas on the IPFS network only increases redundancy, you should store off-chain NFT data wherever you need it to feel comfortable (we call it "maximizing the storage layer"). We want NFT marketplaces, tools, artists, and buyers to all feel a shared responsibility to keep copies of their NFT data, while we strive to store NFT data as a public good - but that starts with using IPFS CIDs in NFTs.

4.3 Storing and Minting NFTs in Web3D

With Web3D, you can:

Store all your NFT images and assets

Generate ERC-1155 compliant metadata containing images and assets

Store this metadata to Web3D

Provide an IPFS URL for metadata that should be put into transactions that generate ERC-1155 tokens

...all in one HTTP request!

Here's an example on how to create your own NFT!

Upload your images, assets and metadata

Before creating a blockchain record for an NFT, you need to store all the off-chain resources that make up the NFT "package". Once everything is stored, you can link to everything else from the on-chain token using the IPFS URI of the metadata.

Below is an example of storing NFT assets and metadata using JavaScript and HTTP API. Both examples use the store operation, which accepts metadata and an asset file in one request, and updates the metadata to link to the asset file using an IPFS URI.

This method requires the metadata to conform to the ERC-1155 metadata schema. The standard is backward compatible with ERC-721 metadata and is generally well supported by various wallets and marketplaces.

When adding custom properties, we recommend that you place them in the properties object, not at the top level. However, if you're minting for a specific market, you should consult their documentation and follow their advice.

For the examples below, we'll use metadata like the following:

```
{
  "name": "Storing the World's Most Valuable Virtual Assets with Web3D",
  "description": "The metaverse is here. Where is it all being stored?",
  "image": null,
  "properties": {
    "type": "blog-post",
    "origins": {
      "http":
        "https://Web3D/blog/post/2021-11-30-hello-world-nft-storage/"
    }
  }
}
```

```
"ipfs":  
"ipfs://bafybeieh4gpvatp32iqaacs6xqxqitla4drrkyyzq6dshqqsilk3fqmti/blog/post/2021-11-30-hello-world-nft-storage/"  
  
},  
"authors": [  
  {  
    "name": "David Choi"  
  }  
],  
"content": {  
  "text/markdown": "The last year has witnessed the explosion of NFTs onto the world's mainstage. From fine art to collectibles to music and media, NFTs are quickly demonstrating just how quickly grassroots Web3 communities can grow, and perhaps how much closer we are to mass adoption than we may have previously thought. <... remaining content omitted ...>"  
}  
}  
}
```

This metadata object describes an article on the Web3D blog whose properties use some custom metadata from fields composed for this example.

While wallets and other clients will not understand the meaning of our custom fields (like `typeor`) origins, they will be able to display the name, description and image as they are all ERC-1155 and ERC-721 compliant.

Speaking of images, if you look closely at the metadata above, you may notice that the image field is set to null. This is because the method of including images and other files in your request is slightly different depending on whether you are using a JavaScript client or an HTTP API. Check the tab that matches your platform to learn how to prepare your request.

JavaScriptHTTP API

The `store(token)` method of the JavaScript client takes a single token parameter, which contains the NFT metadata as a JavaScript object.

Inside the token object, the image field must be set to a File or Blob object, which should contain the image data in a "web friendly" format, such as PNG or JPEG.

properties You can include other files by adding entries to fields whose values are aFile or Blob objects. This will cause these files to be stored with Web3D and the metadata entry will be set to the file's IPFS link.

Here is an example:


```
import { NFTStorage } from 'Web3D'

// read the API key from an environment variable. You'll need to set this before
// running the example!
const API_KEY = process.env.NFT_STORAGE_API_KEY

// For example's sake, we'll fetch an image from an HTTP URL.
// In most cases, you'll want to use files provided by a user instead.
async function getExampleImage() {
  const imageOriginUrl =
    "https://user-images.githubusercontent.com/87873179/144324736-3f09a98e-
    f5aa-4199-a874-13583bf31951.jpg"
  const r = await fetch(imageOriginUrl)
  if (!r.ok) {
    throw new Error(`error fetching image: [{r.statusCode}]: ${r.status}`)
  }
  return r.blob()
}

async function storeExampleNFT() {
  const image = await getExampleImage()
  const nft = {
    image, // use image Blob as `image` field
    name: "Storing the World's Most Valuable Virtual Assets with Web3D",
    description: "The metaverse is here. Where is it all being stored?",
```

```
properties: {
  type: "blog-post",
  origins: {
    http:
      "https://Web3D/blog/post/2021-11-30-hello-world-nft-storage/",
    ipfs:
      "ipfs://bafybeieh4gpvatp32iqaacs6xqxqitla4drkyyzq6dshqqsilkk3fqmti/blog/p
ost/2021-11-30-hello-world-nft-storage/"
  },
  authors: [{ name: "David Choi" }],
  content: {
    "text/markdown": "The last year has witnessed the explosion of NFTs
onto the world's mainstage. From fine art to collectibles to music and media,
NFTs are quickly demonstrating just how quickly grassroots Web3
communities can grow, and perhaps how much closer we are to mass adoption
than we may have previously thought. <... remaining content omitted ...>"
  }
}

const client = new NFTStorage({ token: API_KEY })
const metadata = await client.store(nft)

console.log('NFT data stored!')
console.log('Metadata URI: ', metadata.url)
} storeExampleNFT()
```

Mint your NFT

Once you have the IPFS URI for the metadata, you are ready to create an NFT!

The details of how to mint NFTs depend on the blockchain you use and the amount of control you want to have over minting

It is important to ensure that the metadata URL used when minting NFTs is a properly formatted IPFS URL (ie ipfs://bafy...). This way, any IPFS-compatible browser can use this URL directly to retrieve the correct data, and your NFTs follow this common standard. [Click here to read more about IPFS URLs.](#)

Writing NFT smart contracts

Ethereum is the “birthplace” of NFTs and remains one of the most popular platforms for the NFT market and creators.

The most widely used and well supported standards are ERC-721 and ERC-1155. Adopting one of these interfaces will allow your NFTs to receive broad support "out of the box" from wallets and other NFT applications without any special coordination or effort on your part.

Both ERC standards define methods for retrieving the URI associated with a token. In ERC-721, the method is called tokenURI, while ERC-1155 uses uri.

In general, you will mint new tokens by calling a smart contract function that assigns a new token ID and sets the metadata URI. The exact name of this function may vary from contract to contract, if you are writing your own contract you can call it however you want.

Here's an example contract from the OpenZeppelin ERC-721 guide, using their excellent base contract:

```
// contracts/Gameltem.sol
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

import
"@openzeppelin/contracts/token/ERC721/extensions/ERC721URIStorage.sol";
import "@openzeppelin/contracts/utils/Counters.sol";

contract Gameltem is ERC721URIStorage {
    using Counters for Counters.Counter;
    Counters.Counter private _tokenIds;
    constructor() ERC721("Gameltem", "ITM") {}
    function awardItem(address player, string memory tokenURI)
        public
        returns (uint256)
    {
        _tokenIds.increment();
```

```
uint256 newItemId = _tokenIds.current();  
_mint(player, newItemId);  
_setTokenURI(newItemId, tokenURI);  
  
return newItemId;  
}  
}
```

Here, the minting function is called `awardItem`, which creates a new token and assigns it to the player address.

The second parameter is `tokenURI`, which sets the value returned by the contract's `tokenURI` method. Here you can put the IPFS URI of the NFT metadata.

After a token is minted, anyone can call the `tokenURI` method (defined in the underlying contract) and find the URI of any token. Using URIs, callers can use a peer-to-peer IPFS network or HTTP gateway to get metadata, images, and other assets that define the NFT.



5. APPLICATION NOTES

The existing physical layer networks in the world have been interconnected, and ISPs (Internet Service Providers) can provide users with network access services, and can also centrally block and block some of the user's access. Web3D can use P2P NET distributed end-to-end network technology to build a layer of distributed intelligent metaverse on the physical layer network and ISP network layer through unlimited user nodes, connecting the world.

Three ecological applications/tools based on Web3D protocol

5.1 W3D NFT Storage

A decentralized data storage tool

The decentralized data storage tool based on the Web3D protocol is a decentralized storage service specially built for NFT and NFT metadata. W3D NFT Storage allows developers and NFT applications to protect their virtual assets and associated metadata through content addressing and decentralized storage powered by the IPFS system. [The details have been introduced in this chapter and 4.0 in detail]

5.2 W3D NFT Start

A decentralized NFT publishing platform

W3D NFT Start allows users to release private and exclusive NFT collections with one click, adding wings of encrypted assets to traditional artists, and making people feel the charm of encrypted artworks through convenient operations.

5.3W3D NFT Share

A NFT Collection & Trading Platform

The NFT collection exchange based on the Web3D protocol allows artists to auction and sell their own creations, and at the same time is a platform for digital art lovers to communicate and collect. Collectors and artists can easily interact around their common hobbies. On the platform, users can see who the top collectors are, and can view descriptions and previous owners of the artwork itself.

W3D NFT Share

Based on the underlying blockchain technology, it fully integrates the upstream and downstream industries of the cultural art circulation system under the premise of transparency and fairness. Realize the rapid and efficient circulation of culture and art. Promoting the harmonious development and sustainable prosperity of the art industry from the nature of productivity and production relations.

It consists of the W3D Chain system and the application front-end artwork trading system

W3D Chain is a huge decentralized database of cultural and artistic ecological private chain based on BSC smart chain. The source, identification and storage of data are completed by community members. Contains multi-dimensional information related to culture and art, such as: art information, artist information, market maker information, etc. Each type of information is also high-precision, and on this basis, a variety of smart contracts and incentive mechanisms are set up to ensure SUPER production normal operation of the ecosystem.

The artwork trading system is a specific application, including artwork registration, traceability, bidding transaction, custody storage, pledge service, guarantee service, etc. It is the terminal manifestation of the culture and art industry on the public chain. With the development of the cultural market and the subdivision of the cultural field, W3D NFT Share will be able to develop more applications such as art appreciation, entertainment, art training, and art-related material circulation.

Based on artificial intelligence technology in the public chain database, W3D Chain will customize the cultural and artistic needs of users and provide more accurate service solutions. For example, the system will recommend highly relevant art: in line with regional characteristics, suitable for use The personal hobbies of the users are in line with the users' circle habits, their income levels, and their investment habits... and recommend customized protection and custody services for them.

The artwork trading system is an industry public chain for tracing and trading artworks based on blockchain technology. by art

The whole process of art creation and transaction is on the chain, which solves the ownership and circulation problems of the current art industry. specific

The art trading system uses the Internet of Things technology to record the entire process of art creation, and according to cryptography

The principle of hash operation generates a unique identity (NFT) for each artwork, extracts a "digital fingerprint" and

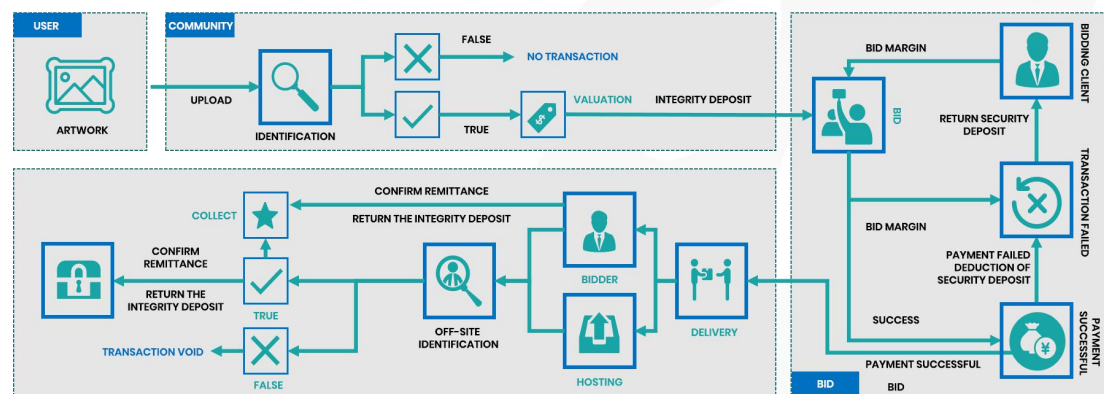


Upload to the blockchain for authentic, transparent and immutable traceability.

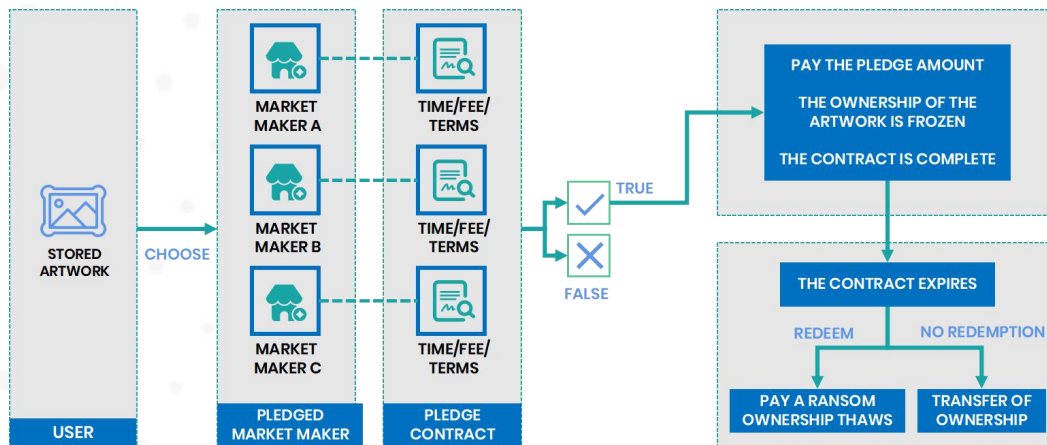
The art trading system adopts decentralized selection of custody nodes, and generates chain links while the artwork is physically stored.

It records the acceptance agreement on the GID and the chain token, and can accept the designated artwork at any time. It has a wealth of smart contracts to support financial services such as circulation and mortgage, and it creates a new model of IAO (Initial Assets Offering), which is circulated on the chain. The transaction greatly reduces the trust and communication costs of both parties in the art transaction, and improves the liquidity of assets.

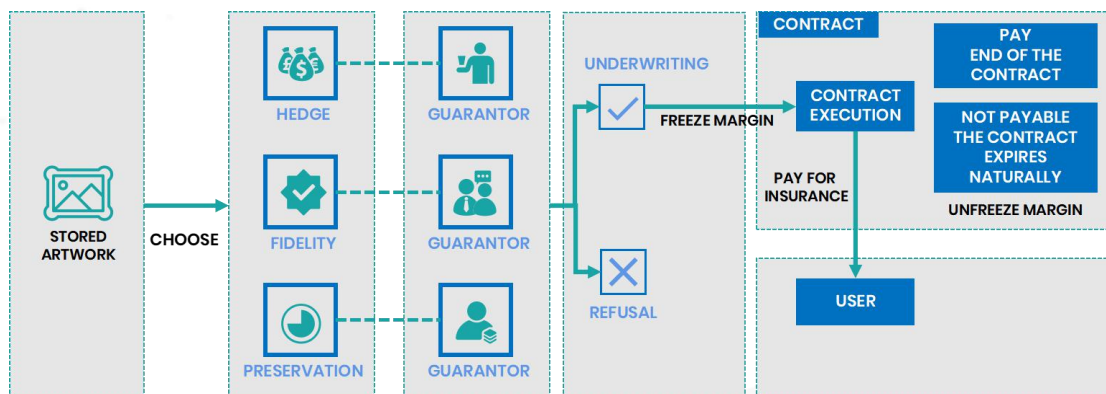
The application layer is the part that provides specific services for the entire artwork ecosystem, including many specific applications, such as bidding transactions, property rights registration, artwork traceability, custody storage, pledge, guarantee, etc., and will be gradually opened and developed according to the progress of the project Various functions.



We also set up cultural and artistic quality pledge protection services



Artwork in custody can apply for pledge service, which can quickly realize artwork





6. TOKEN ECONOMICS

6.1 Introduction

W3D is a governance token issued by Web3D. It is an important medium to promote the development of Web3D network. Based on the economic model of Web3D, through the community governance mechanism of tokens, all participants are encouraged to invest in the maintenance and development of the overall ecological network.

Token Contract: Unannounced

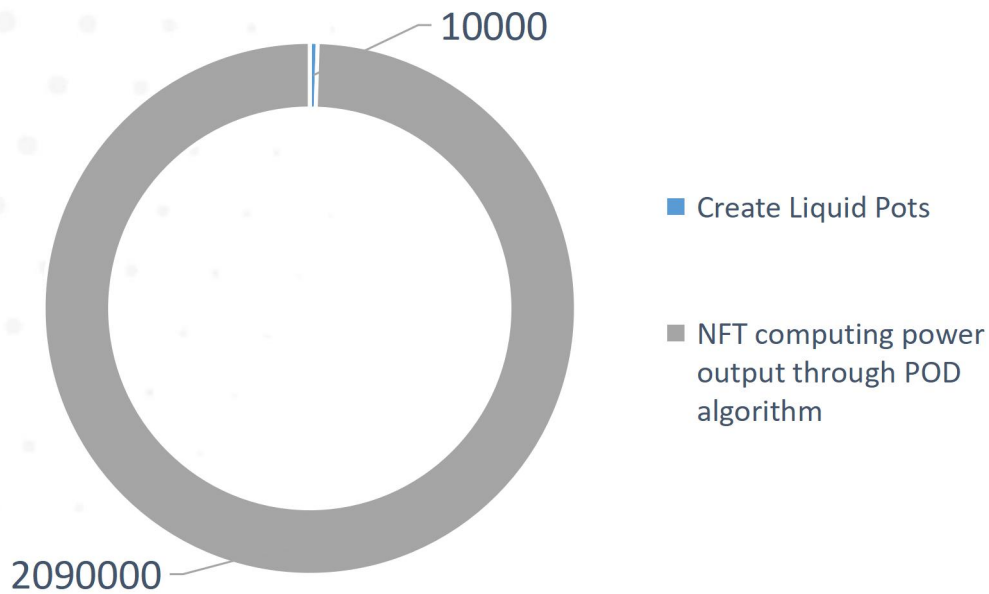
Token Name: W3D

Total issuance: 2.1 million

Allocation Mechanism:

10,000 to create a liquidity pot

2.09 million NFT computing power output through POD algorithm



W3D TOKEN uses two simple functions: transaction tax deduction, referral rebate

Tax deduction per transaction (5%)

- 3% reward to W3D-USDT LP holders
- 0.5% for referral rebates, 0.25% for direct referrals and 0.25% for indirect referrals
- 1.5% W3D's DAO organization construction

6.2 Economic Model

In Web3D's economic model, there are 2 ways to earn W3D. First, participate in W3D's innovative POD algorithm (Proof of Destroy), which is obtained by mining. Second, W3D can be obtained through DEX transactions through Web3D. W3D has three main uses:

Member Benefits: W3D-USDT LP holders can receive interest from Web3D treasury distribution

Community Governance: Users can participate in community governance by staking W3D to initiate proposals and participate in voting.

Community Alliance: Different communities obtain NFT computing power by staking and destroying their own community tokens, and participate in the POD mining of Web3D

NFT issuance and storage: When using Web3D's NFT storage, you need to pay part of the W3D service fee. At the same time, participating in W3D NFT Share can deduct and discount the transaction fee.

On the other hand, all transaction fees for NFT Share will be regularly used to repurchase W3D in the open market, and will be distributed proportionally to W3D's stakeholders and development committees.

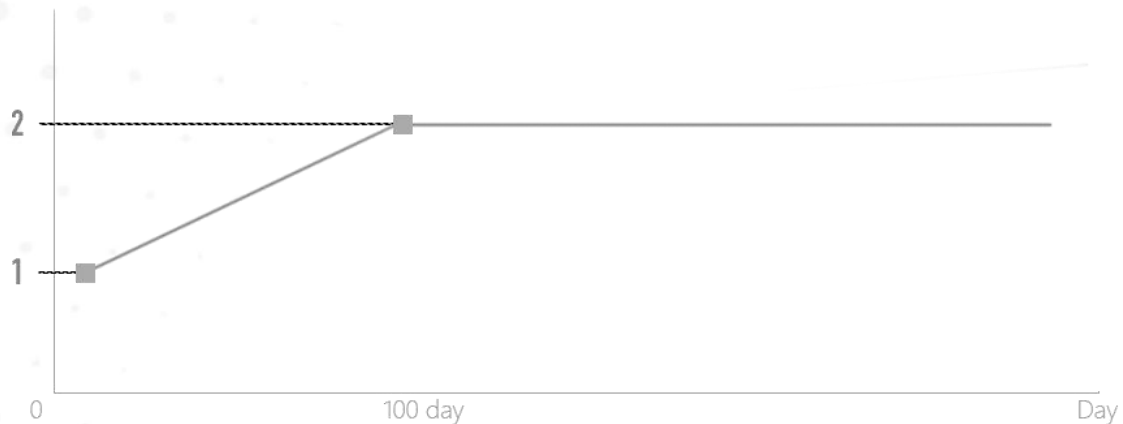
6.3 Destroy Mining

Web3D community members obtain their personal computing power by staking community tokens equivalent to 75USDT+25USDT.



At the same time, the weighted calculation of computing power is carried out according to the time factor of the pledge (the daily weighting coefficient is 1%-5%)

$$\text{TimeFactor} = 1 + 1\%n$$



$$\text{NFT Power} = (75 + 25)N * \text{TimeFactor}$$

For example, A has pledged 75UST+ community tokens equivalent to 25USDT 10 days after starting the pledge mining (for example, the META community needs to provide 25USDT of META), and its personal computing power is

$$(75 + 25) * (1 + 1\% * 10) = 110$$

Among them, Web3D will evenly distribute the W3D of the current block output according to the capacity of each person and the current capacity of the entire network. The daily output of coins will fluctuate between 84 and 210 coins.

$$\text{Personal mining} = (\text{Personal Power} / \text{network Power}) * \text{Current Production}$$

Destroy

Participate in the destruction of mining to obtain USDT and automatically buy W3D in the W3D/USDT trading pair, and the purchased W3D will be destroyed; the price of W3D will rise rapidly through the automatic pulling mechanism

At the same time, according to the final destruction to 210,000, it will no longer be destroyed; creating the scarce value of W3D

Repo

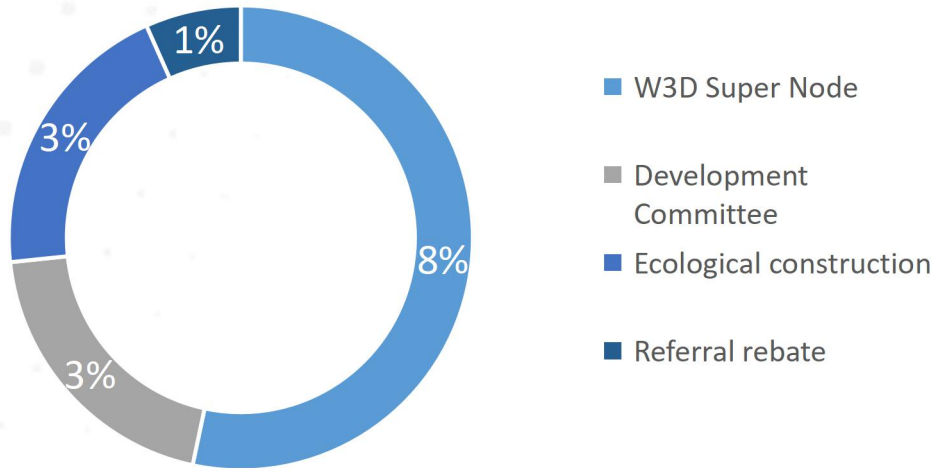
The fees charged by the Web3D platform will be used to repurchase W3D on the open market on a regular basis, and will be deposited into the treasury for redistribution.

Treasury

The treasury is Web3D's revenue reserve pool, and is responsible for receiving, managing, distributing, and regularly disclosing financial data to the community. In Web3D, 15% of the revenue generated by each POD mining will enter the treasury; in order to promote the virtuous development of the project, part of the revenue of the treasury will be used to reward W3D super nodes; the other part of W3D will be allocated to the development committee for incentives Community Contribution. During the phase 0 governance period, 8% of the default treasury W3D revenue is allocated to W3D super nodes; 3% is allocated



to the development committee; 3% is used for ecological construction, and the remaining 1% is used for referral rebates.



7. PARTICIPANT

Pioneer (DAO Organization)

A fundamental difference between a blockchain community-based autonomous organization (DAO) and a traditional company is that it was positioned as a giant network organization from the very beginning, expanding and developing globally, distributed, and non-linearly. Relying on blockchain technology and the concept of token economy, Web3D adopts a decentralized node management method, the autonomous community is highly autonomous, and provides a series of voting mechanisms. The voting results are combined with smart contracts to automatically adjust the business share and credit rating of the business. In Oracle's ecosystem, it includes roles such as nodes, supervisors, developers, contract users, consumers, DAPPs, and communities.

Node

The administrator of Web3D has decision-making and governance power. Web3D is responsible for operating the infrastructure of the underlying protocol and providing computing power support for the Web3D ecosystem. As long as there is one more Web3D node, the Web3D-Chain system will never stop online.

Supervision Agency

The important participants of Web3D, they can be institutions or individuals, they supervise, audit, certify, rate, arbitrate and other work on business behavior in Web3D. Third-party service providers: third parties that provide related business services based on Web3D.

Developers

Important participants in Web3D, they can be companies and individuals. They provide development services in Web3D, including the development of smart contracts, and the development of DAPPs. Web3D requires that any smart contract deployed into the ecosystem must be registered in the governance contract and signed by the developer.

Consumer

Individual users who use Web3D decentralized applications or services through DAPP, web applications, wallets and other channels.

Community

Web3D values the power of community. Through the application of the community, Web3D will absorb technical talents from domestic and foreign institutions and individual communities, and provide strength for the technical realization and technical iteration of Web3D.

DAPP

The quality and innovation of DAPP determine the vitality of a blockchain ecosystem. In order to help developers get started with DAPP



development faster and accelerate the creation of a developer ecosystem, Web3D will rely on its rich resources to incubate commercial DAPP applications in various industries in the chain. was born.



8. STATEMENT

This article is general information based on Web3D development advice and experience. It should not be considered professional financial investment advice and used to evaluate or make any investment decisions. This article reflects the author's current views and does not represent the model cited or its affiliates. Future product updates will not be announced separately, please pay attention to the official news for the latest product updates.