

NFT

Non-Fungible Tokens

101 Guide

Defining Fungible and Non-Fungible

Fungible:

If an item is fungible, then it can be substituted or exchanged for any similar item. Fiat currencies, like the US dollar, contain fungible units. A one dollar bill can be exchanged for any other dollar bill.

Cryptocurrency tokens like Bitcoin, Ethereum and MANA are all fungible because one token can be exchanged for any other token of the same currency. The only thing that changes is a record on the blockchain registering the transaction.

Non-Fungible:

A non-fungible asset therefore has the opposite characteristics to this definition: they are unique, irreplaceable and non-interchangeable.

One physical example of a non-fungible asset could be a plane ticket. While they look the same as other tickets, each one has different passenger names, destinations, departure times and seat numbers.



Interchangeable
Uniform
Divisible



Not Interchangeable
Unique
Non-Divisible

Primary Concepts

NFTs

NFTs are unique representations of goods or assets that take the form of digital tokens. Through the use of cryptography, NFTs can prove the authenticity, as well as ownership of such assets and goods.

The recent appearance of non-fungible tokens has left many confused regarding what these tokens are, and what do they do.

Every currency, whether crypto or a fiat, needs fungibility if it wishes to be seen and used as a medium of exchange, a unit of account, or a store of value. In fact, when it comes to cryptocurrencies, fungibility might be even more important, since it allows them to maintain the legitimacy of interchangeability between different units.

However, recently, a new kind of non-fungible tokens, also known as NFTs, have surfaced.

Blockchain

Blockchain is literally a chain of blocks. When we say the words “block” and “chain” in this context, we are actually talking about digital information (the “block”) stored in a public database (the “chain”). “Blocks” on the blockchain are made up of digital pieces of information. Specifically, they have three parts: Transactions (day, time, amount, etc); Participants (user’s “digital” signature”) and a Block to distinguish them from each other.

Ethereum

Ethereum is an open-source platform that enables thousands of decentralized cryptocurrencies and projects to be built and deployed on their open, public blockchain.

ERC-721

ERC-721 is the seven hundred and twenty-first proposal in the Ethereum proposal process (EIPs) to standardize how these applications are made and how Ethereum will work.

ERC-721

ERC-721 defines a minimum interface a smart contract must implement to allow unique tokens to be managed, owned, and traded. This token standard has an easy interface for exchange and wallet operators.

Crypto Collectibles and the ERC-721 Token

The ERC-721 protocol makes each token unique. They may operate on the same smart contract, but each token has its own cryptographic signature. Perhaps the most common reference or use case for NFTs of the ERC-721 standard, is CryptoKitties, which uses the standard to power a crypto-collectible online game.

There are also many other useful applications for ERC-721 contracts that will be explored soon on this guide.

NFTs are shaping the future of technology, including: securing digital ownership, protecting intellectual property, tracking digital assets and overall creating real world value.



ERC-1155

Tokens standards like ERC-20 and ERC-721 require a separate contract to be deployed for each token type or collection. These places a lot of redundant bytecodes in the Ethereum blockchain and separates each token contract into its own authorized address, which limits certain functions. With the advent of blockchain games and platforms that support them, game developers may have created thousands of token types, and new types of token standards are needed to support them.

The next generation of Token Standard

ERC-1155 is a new standard for representing virtual items on the Ethereum blockchain that allows the creation of multiple types of tokens in the same contract.

ERC-1155 is not game specific, so many other applications can benefit from this flexibility.

There are several benefits to the ERC-1155. It allows developers to consolidate the logic in one contract and build an ecosystem around one single address. It also allows batch transfers to operate in the confines of the same contract — and all of this can be accomplished at a reduced gas cost.



What can we do with NFTs ?

Collectibles

NFTs are best known for their utility as Collectibles, where users can keep digital assets assigned to their names and ownership is immutable.



www.CryptoKitties.co

Gaming

NFTs give players real ownership over in-game items. Gamers can monetize their efforts by actually owning (and even selling) the rare assets they earn in games.



www.GodsUnchained.com

Tickets

Tokenization of event tickets prevents fraud (including fake tickets) and opens up new, decentralized markets for trading and reselling.



www.OpenSea.io/cryptotickets

Why do we Collect things?

There is an interesting psychological factor into why we collect things. The satisfaction associated with collecting can stem from pure enjoyment to investment, expanding our social circles, preserving the past, a means of distinction, and the simple thrill of the chase.

Collecting is the arrangement and classification of parts of a “smaller world” within our very own.

What can we do with NFTs ?

Identity and Certificates

Birth certificates, passports, driving licenses, contracts or even patents can be tokenized with NFTs and used for identity authentication and certification.



Charity and Donation

NFTs can provide entrepreneurs with new ways to raise funds and engage with their stakeholders. They can also assure the safety of transfers and support Not-For-Profit organizations to manage their funds.



www.CryptoCare.tech

Licensing

Creating NFT based licenses can reduce software piracy, and even allow people to sell their license when they no longer need it. The licence here acts as an asset.



The Power of Tokens

Tokens will disrupt global economics and radically change how commerce will be transacted. While various implementations exist for tokens for specific blockchain platforms, the industry is currently lacking a venue for all participants to collaborate on a shared description and approach, resulting in a lack of interoperability, reuse, and common ground to address regulatory issues.

What can we do with NFTs ?

Rewards

Brands, Communities and Employers can easily create and give fans, followers and staff personalized, relevant and actionable NFT Rewards.

Some examples are:

- Recognition Badges
- Redeemable Coupons
- Collectible Reward Tokens, where collecting a set unlocks a gift

Relationships

Gamify your community by assigning special relationships between tokens.

Some examples are:

- Collecting a set of tokens to unlock a Gift or Offer
- Activating special functionality by pairing with another NFT
- Driving engagement at physical events with collectible Scavenger Hunts

Flash Group

Form groups around a topic or cause with interactive Flash Group NFTs.

Your Group becomes activated once the minimum number of members RSVP.

Once activated all members receive an email including the time, date and location of your Group.

Kred NFTs

Kred NFTs create and distribute actionable Non-Fungible Tokens on private and public Ethereum Networks. Drive action among your community by sharing redeemable tokens that bring real-world value or simply create connections based on common interests. Learn more.

The Non-Fungible Future

The realm of possibilities for non-fungible digital assets is vast. Your identity, qualifications, real-world property, and digital collectibles could all exist on the blockchain. They would be tokens you can keep, show, share, or sell.

NFTs can empower us as individuals to instantly transact with anyone in the world, while companies can manage their entire inventories using digital tokens. Given time and investment, NFTs may become the foundation for future economies.

Music

Artists could launch NFT smart contracts which store their music, prove its authenticity and give the holder immutable legal license.

Real Estate

Buyers and sellers will store property records in the Ethereum blockchain, allowing the property purchase process to be executed in an intelligent contract, with the actions planned for each of the parties involved.

Vehicles

Selling a tokenized car would be as easy as accepting the payment from the buyer and transferring the token ownership. It is this ease and frictionless way of functioning that gives tokens an edge in real-world situations.



Digital Wallets

A Digital Wallet is a software program that stores private and public keys and interacts with various blockchain to enable users to send and receive digital tokens and / or digital currency and monitor their balance.

How they work

When a person sends tokens or any other type of digital currency, they are essentially signing off ownership of the tokens to someone else's wallet address. To be able to use or see those tokens , a private key stored in the sender's wallet must match the public address the token is assigned to. If public and private keys match, the token is transferred successfully. The transaction is signified merely by a transaction record on the blockchain and a change of ownership.

Wallet Types:

Desktop

High level security wallet, downloaded and installed on a PC or laptop. They are only accessible from the single computer in which they are downloaded.

Online

Wallets run on the cloud and are accessible from any computing device in any location. More convenient to access, also more vulnerable.

Mobile

Wallets run on an app on your phone. Useful to easily showcase tokens or use digital currency.

Hardware

User's private keys are stored on a hardware device like a USB. Hardware wallets make transactions online, but they are stored offline which delivers increased security.

Popular Digital Wallets

Kred Wallet



NFT.Kred automatically creates a free Digital Wallet for users on signup.

Kred Wallet can be accessed via an exclusive and memorable Kred Domain where users can directly send tokens to each other within the platform, as well as SMS or Email.

Coinbase



Coinbase Wallet is a multi-coin wallet, ethereum wallet, and ethereum browser app that allow users store crypto coins, manage Ethereum-based tokens, and access DApps.

Portis



Portis is a JavaScript SDK for DApp developers. It offers a secure gateway to the Ethereum network.

Portis is vailable across all their devices since it's a web wallet and it easily interacts with smart contracts.

Dapper



Dapper is a smart contract wallet that offers the benefits of decentralization — the control over one's own data and assets — within a safety net.

The Dapper smart contract enables security features like account recoverability and fraud protection. It also makes possible conveniences like smart fee management and multi-device support

Digital Swag Bag

In February 2019, NFT.Kred powered the first Digital Swag Bag ever on the NFT world, by delivering a collection of tokens to over 400 Attendees at the leading NFT Event for Non-fungible Tokens, NFT.NYC.

How they work

1. Sponsors provide their digital assets that will be tokenized and transformed into NFTs
2. These NFTs are bundled together and delivered by email to event attendees
3. Each attendee is granted with a free Digital Kred Wallet that holds their NFTs
4. Each NFT carry something special about them:

- Redeem for an Offer
- Redeem for a Download
- Schedule a Meeting
- Share a Discount
- Register a Ticket
- Access an Event
- Claim Swag
- Promote an Artist or Artwork
- Promote an Author or Book
- Share a Reward

Participate on the NFT.NYC 2020 Swag Bag

Reach out the right audience at NFT.NYC 2020.

Apply now at **www.NFT.NYC** and join other 50 Sponsors who are shaping the Non-fungible Token Future.



NFT Heroes



Mickey Maher

Head of Revenue at Dapper Labs (CryptoKitties)



James Ferguson

Co-founder of Gods Unchained, one of the first games on the Ethereum blockchain



Alex Atallah

Co-founder of OpenSea, decentralized marketplace for crypto collectibles



Lisa Nestor

Director of Partnerships at Stellar



Randy Saaf

Co-founder and CEO at Lucid Sight, the company that developed MLB Crypto Baseball



Jehan Chu

Co-founder of Kenetic Capital. Also the founder of the Ethereum HK meetup



Esteban Ordano

Tech Lead at Decentraland, the first blockchain-enabled virtual world powered by cryptocurrency



Jake Tran

Co-founder and Game Designer at Etheremon, one of the Top 5 NFTs in the token space



Will Warren

Co-founder & CEO of 0x, an open protocol that enables the peer-to-peer exchange of assets on the Ethereum blockchain



Spencer Bogart

Partner at Blockchain Capital and the General Partner of Blockchain Capital's venture funds.

NFT Heroes



Nate Geier

Founder of Mintbase



Brantly Millegan

Director of operations at
Ethereum Name Service



Johan Unger

Co-Founder and Project
Lead at MarbleCards



Vanessa Grellet

Executive Director at
Consensys



Bobby Singh

Founder at Luxury Ledger



Jon Jordan

Director of Communications
at DappRadar



Alex Mashinsky

Founder at Celsius Network



Sebastien Borget

COO and Co-Founder at
Pixowl Inc.



Devin Finzer

Co-founder and CEO at
OpenSea



Zach Burks

Founder at Mintable.app

NFT Heroes



Brad Kam

Co-founder at
Unstoppable Domains



Gordon Meyer

Founder of Enginebloc



Duncan Cock Foster

Co-Founder of
Nifty Gateway



Gauthier Zuppinger

Co-Founder of
Non-Fungible.com



Peter Bordes

Managing Director, Global
Events at CoinDesk



Preston Attebery

Founder of BlockCities



Lou Kerner

Co-Founder and Partner at
CryptoOracle



David Pakman

Partner at Venrock



Caty Tedman

Head of Partnerships at
Dapper Labs



Jonas Hudson

Co-Founder at Greenfence

Know more about NFT.Kred

Create and distribute actionable Non-Fungible Tokens on private and public Ethereum Networks.

Kred NFTs are used by Enterprises, Event Organizers, Influencers, Designers, Content Creators, Brands and more, to generate conversation and drive engagement.

NFTs for Marketing Outreach



Redeemable Ticket



Coupon



Request Download

NFTs for Asset Registration



Physical Asset Registration

NFTs for Driving Collaboration



Data Consent



Membership Cards



Business Cards



Digital Asset Registration

Kred Domain Tokens

.Kred is a Top-Level Domain (similar to .COM) which allows Kred users to create their own custom domains, like John.Kred or MyCompany.Kred.

.Kred Domains are both fully resolving web and wallet addresses, which makes is DNS and ENS compatible.

Registering a .Kred Domain provides you with a **Kred Domain Token**.

What can you do with a Kred Domain Token

- Link to a Kred Profile, showing all your online content, gather your social feeds into one place and connect with other Influencers.
- Link to digital wallets - Send and receive currency and digital assets using your .Kred domain instead of a complex wallet address

Registering a Kred Domain on OpenSea

Pre-selected .Kred Domain names will be available for Auction on OpenSea.io from 20th Feb 2020. In March 2020, any other name can be registered at www.Domains.Kred

