

# What is NFT?

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NFT - non-fungible token - is a token issued on the blockchain in a single copy.

An NFT is like a mark that makes digital things special and unique. Imagine you have a digital painting or video clip that you created or purchased. You can create an NFT for this item to show that it belongs only to you. It's like having a special stamp or seal on your digital file to show that you are the owner of it.

The thing about NFTs is that each one is unique and cannot be replaced by another. It's like having a card with your name on it - there can only be one and no one can fake it or change it. When you buy an NFT, you become the sole owner of that digital item. This gives you special ownership and status.

Thanks to blockchain technology, every NFT purchase transaction is recorded and stored on a public blockchain. This purchase record cannot be tampered with, altered or deleted, ensuring your ownership of this photograph is secure. Thus, blockchain and NFTs together create a system that guarantees the authenticity and uniqueness of digital works and ensures security of ownership.

To ensure even greater security and fairness of transactions, the sale of NFTs is carried out using smart contracts. A smart contract is a computer protocol on a blockchain that automatically executes the terms of a contract between parties. It works like this: the smart contract describes certain conditions that one party to the contract must fulfill in order to receive the asset. For example, an NFT is automatically transferred to the buyer after payment is received in the seller's account.

NFT example. Let's imagine that we have a photographer who created a series of unique nature photographs and decided to sell them. To ensure each photo is unique and proof of ownership, he creates an NFT for each one.

The photographer uploads digital files of their photos to the blockchain, and each photo receives its own unique NFT. An NFT stores the photo file itself, as well as additional metadata, such as the title of the photo, the name of the photographer, and a description of the work.

Now imagine that you saw one of these photos and really liked it. You decide to purchase that photo, and to do so, you buy an NFT associated with that specific photo. Once you own an NFT, you automatically acquire ownership of that photo.

## **Differences between NFTs and cryptocurrencies**

NFTs and cryptocurrencies issued on the blockchain have differences. The main difference is that cryptocurrencies are fungible, whereas each NFT is unique and non-fungible.

For a better understanding, let's imagine the following situation: you have a collection of rare coins. You decide to lend one of them to your friend. When returning a coin, your friend must return the exact coin you gave him, since each coin in your collection is unique and has its own story. In the event that a friend returns a different coin, this will no longer comply with the terms of your agreement.

The uniqueness of NFTs is not due to special properties or great value, but simply to the fact that each NFT is released in a single copy, and there is no other one like it.

The term "fungible" in English means "interchangeable", while "non-fungible" means "not interchangeable". This is where the name NFT comes from - "non-fungible tokens".

## **Applications of NFTs**

NFTs are actively used in several industries, despite the fact that some people view them as simply a popular technology with no real value. Below are a few areas where NFTs are finding their application.

Much of the NFT trade involves collecting unique items. These collections include thousands of NFTs with a variety of characteristics. For example, artists can create multiple types of hairstyles, hats, different colored eyes, etc. Then, with the help of artificial intelligence, these characteristics can be combined to create thousands of unique combinations.

Let's look at this example: imagine superhero trading cards. Each card represents a unique hero and has different characteristics such as strength, speed, skills and appearance. Artists create different images of heroes, as well as variations of their abilities and costumes. When you buy an NFT superhero card, you get a unique copy of that card that has no analogues. Your collection of NFT cards can be unique, consisting of various combinations of heroes and their characteristics.

Thus, NFT collecting provides the opportunity to own and collect unique digital items with diverse characteristics, created by artists and enhanced by artificial intelligence. These collections are valuable and interesting for collectors, since each NFT is a unique piece and has no duplicates.

Also, the use of NFTs is becoming very popular in computer games and art. NFTs are used to buy and sell in-game items such as weapons, characters, clothing, and more.

In the arts, for example, artists can create NFT tokens that represent digital versions of their works and sell them directly to buyers. The same applies to musicians, who can sell their songs through NFTs without intermediaries such as art galleries and music studios, allowing them to retain much of the value of their works.

## **NFT Storage Options**

NFT tokens are held by their owners, but what about the media files themselves, such as the images, videos and music they are associated with? There are several storage options:

In the decentralized system IPFS (InterPlanetary File System, Interplanetary File System). In this case, each file has a unique identifier by which it can be found, regardless of its actual location. The file can be stored in different copies on different devices or even divided into several parts. This is similar to torrenting, where the movie file is split into small parts, and when downloading, each user receives these parts from different sources. This method is the most reliable because if one copy of the media file becomes unavailable, you can turn to another copy.

On the creator's server. This option is very unreliable because if the creator's server goes down, the owner of the NFT will not be able to view the content. In addition, the creator may be dishonest and change the file, leaving the link to it unchanged.

On the server of an NFT platform or marketplace. In this case, the responsibility for the availability of media lies with the platform. However, there is a risk of servers crashing, which may make files unavailable.

The conditions for using the purchased asset are determined in the smart contract. Typically, the copyright remains with the creator of the image, but you get the right to use it, for example, as a personal avatar. Often contracts allow buyers to resell or lease assets, for example to allow a business to use a picture in an advertisement.

However, if your rights are violated, you will only be able to protect them if your country's legal system recognizes digital rights. This also applies to other blockchain assets.

## **How to make money on NFTs**

Earnings on NFTs are made in much the same way as on stocks, mainly due to the increase in their value. The price of an NFT can increase significantly within a few months, increasing the investment tenfold.

However, similar to stocks, NFT prices may also decline significantly. As a result of a large-scale correction in the cryptocurrency market, many collections fell in price by 50% or more. Those who bought NFTs at the \$400,000 peak are now forced to sell them for \$100,000 or wait for prices to rise again.

Investing in NFTs involves high risks and requires a deep understanding of the market. If you want to try your hand, it is recommended to choose inexpensive assets and be prepared for the possible loss of your investment. In general, this applies to any type of cryptocurrency investment.

The creation and sale of NFTs is carried out through specialized marketplaces and platforms such as OpenSea, Rarible or Mintable. These platforms provide the ability to create and trade tokens.

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