Introduction to Tokenization

What is Tokenization?

Tokenization refers to the process of using digital assets to represent ownership of real-world assets. The concept has been around for some time, but as it pertains to the blockchain, tokenization means converting a real-world asset – whether tangible or intangible – into a token that represents that value and can be used on the blockchain.

Background

The general concept of tokenization predates Ethereum. As long as something represents value and enables its utility, it's a token. A subway token provides a great example. This token is easy to transfer (you can buy a few and distribute them to a group of people), and it provides utility to the holder by admitting entry through the turnstile. The subway token is thus a representation of value as well as an enabler of its utility, a perfect example of effective tokenization.

That said, a subway token is a physical token. Its ownership is asserted by physically having it in one's pocket. As the space evolved, tokens became virtual. Take the New York taxi medallion, for example. In this case, physical possession of a plate doesn't justify its ownership. The ownership is recorded by city authorities, who set the rules for trading those medallions. Despite the change of recording method, it still is a representation of value as well as an enabler of its utility (allowing a taxi to legally take passengers).

The Ethereum blockchain further removed the need for an explicit authority to declare or register value and utility, therefore enabling a free and globally accessible token market.

Over the course of recent years, tokenization has blossomed into a booming and lucrative space, with the potential to grow further. Tokens can represent both tangible items and intangible items, and just about anything can be tokenized, as long as the asset is considered valuable.

Crypto tokens come in a wide array of forms and can be uniquely programmed to facilitate a particular use. Crypto tokens fall into three main buckets:

Security Tokens – These represent a specific asset or investment, either tangible or intangible. A security token's utility is usually either the right to reap a return, e.g. receiving dividends, or the right to vote. Today, they are widely programmed to enable new financial products.

Utility Tokens – These tokens provide access to a product or service. For example, ownership of a coffee token allows the owner to redeem a cup of coffee in exchange for the token. Ether can be considered this type because its consumption allows transactions to be recorded on the Ethereum blockchain.

QUICK TAKEAWAYS

Tokenization refers to converting an asset into a blockchain token that represents the value of that asset and its utility. Just about anything can be tokenized, including hard assets, like gold, or intangible ones, like usage rights to a smart car.

There are two main reasons to tokenize: to make assets that are easily tradable and accessible on the global market, and to allow the owner of the token to exercise the utility enabled by the token.

Tokenization is central to how blockchain-based systems will revolutionize business. It helps drive efficiencies, reduce costs, ensure transaction transparency and more.

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Currency Tokens – Also known as cryptocurrency, these tokens are created to be spent or traded. Bitcoin is the classic example. Stablecoins, a class of cryptocurrency backed by real-world assets, also fall under this category.

Crypto tokens can also be both fungible and non-fungible. Fungible tokens are identical and interchangeable while non-fungible tokens, or NFTs, represent unique assets such as collectibles.

The creation and sale of NFTs in art and pop-culture has skyrocketed in recent years, with a number of celebrities jumping into the space and many high-profile NFT sales receiving mainstream attention. That said, NFTs are much more than just a pop-culture phenomenon. This subset of tokenization has many implications for the business world, with the potential to help build customer loyalty, drive engagement, develop communities, augment CRM strategies and more.

In fact, the business benefits of tokenization go way beyond the realm of NFTs. Tokenization helps drive business efficiency and facilitate transactions by automating many historically manual and time-consuming processes and transferring them to the blockchain. This removes the need for middlemen, who can delay processes and drive up costs, and results in time and money saved. In addition, the automation factor reduces the possibility of human error, which also helps lower costs, ensure compliance and preserve a company's reputation with clients, partners, investors, etc. In this same vein, tokenization helps increase transparency, as all transactions are public and visible on the blockchain, which builds trust and can help strengthen a company's relationships. Tokenization is also a great tool for ensuring users' privacy and allows businesses to effectively comply with data privacy laws, such as GDPR and HIPPA.

Despite all the advantages that tokenization offers, like all new technologies there are some challenges. One such issue relates to regulation. Governments around the world are approaching regulatory requirements in this new space differently, which creates inconsistency that could be challenging for businesses operating on a global scale. Additionally, the industry currently lacks standards around how tokens can interoperate across multiple, disparate blockchains, which presents another hurdle that can impede upon business adoption. Finally, while tokenization is considered very secure and can help reduce the risk of data breaches, it's important to note that businesses do have a role to play in ensuring that security. This includes confirming company policies on tokenization are clear, well disseminated and enforced, requiring annual security training on the topic and providing effective vulnerability management for both employee devices and company infrastructure.

Tokenization as it applies to the blockchain, while still a relatively new concept, has already proven its business value in a number of ways. From efficiency to cost savings to transparency, there are many reasons for businesses across industries to utilize tokenization, and as the space continues to mature, we're likely to see less regulatory friction and an uptick in adoption.

HOW DO I FIND OUT MORE?

Read: What is Tokenization in Blockchain? from Cryptopedia

Watch: The EEA's webinar, Digital Asset Tokenization: Technical Framework and Considerations

View file on web page

About the EEA

The Enterprise Ethereum Alliance (EEA) enables organizations to adopt and use Ethereum technology in their daily business operations. The EEA empowers the Ethereum ecosystem to develop new business opportunities, drive industry adoption, and learn and collaborate.

To learn more about joining the EEA, reach out to james.harsh@entethalliance.org or visit https://entethalliance.org/become-a-member/.

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