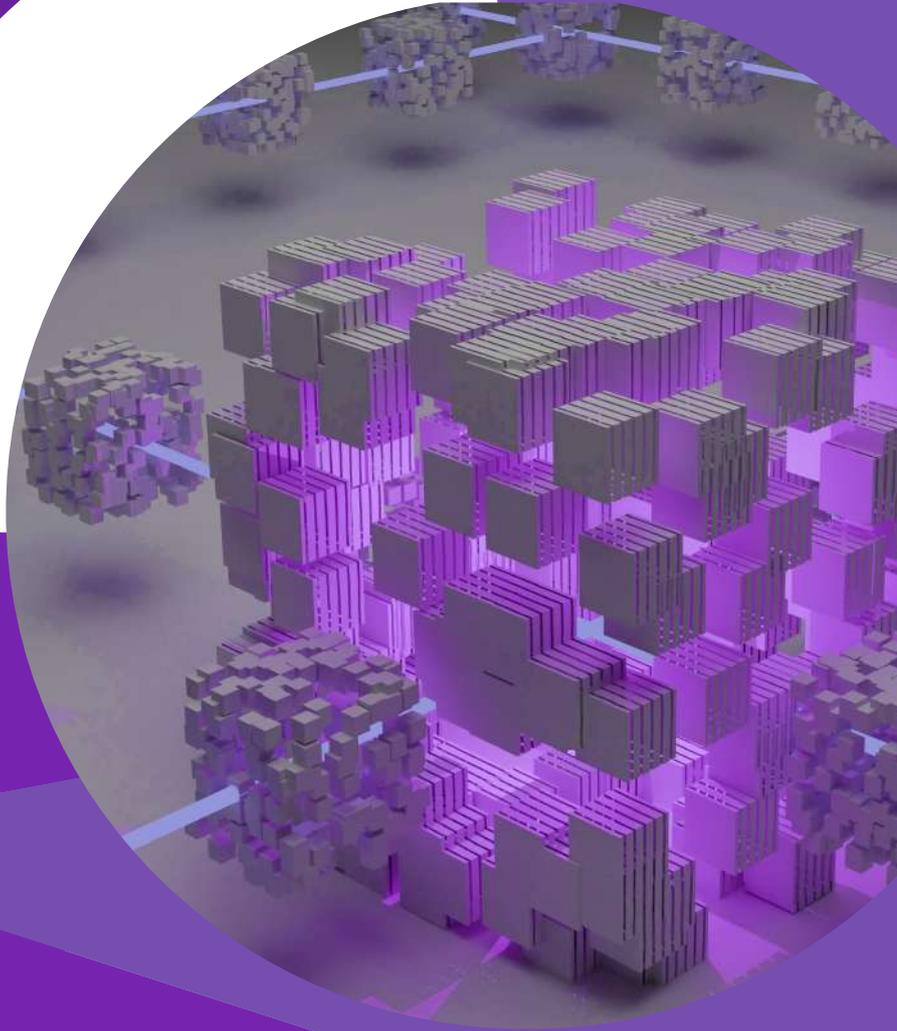


TOKENMASON

# WHITE PAPER

HOW TO  
TOKENIZE  
DIGITAL  
ASSETS



TOKENMASON

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Because each individual's and organization's situation is unique, a qualified professional should always be consulted before making any financial or commercial decisions. TokenMason makes no guarantees about the accuracy or timeliness of the information contained herein.

Because blockchain is relatively new, related best practices are still being defined. TokenMason does not manufacture, produce, distribute or sell any financial products or services. Instead, TokenMason works with blockchain specialists and consultants to implement client and project requirements.

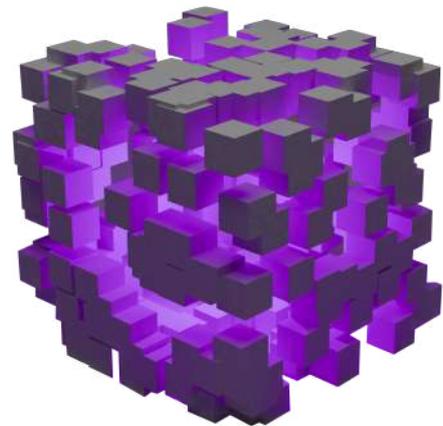
# INTRODUCTION

Blockchain technology is one of the most transformative technological innovations in the digital era. The blockchain industry is currently growing at a rapid pace and is expected to generate billions in revenue in the next few years.

Business leaders see blockchain as an enabling technology that will further transform their businesses. According to a 2021 Deloitte survey,<sup>1</sup> 80% of senior executives around the world agree that their respective industries will see new revenue streams from blockchain, digital assets and cryptocurrency solutions.

In this white paper, we provide an overview of blockchain, cryptocurrencies, smart contracts and NFTs. We then discuss initial coin offerings (ICOs), explain the process of tokenizing digital assets and how TokenMason can help your organization deliver blockchain solutions in a fast, reliable and cost-efficient way.

At TokenMason, we look forward to seeing the technological advancements blockchain has to offer during the information age and in doing so welcome opportunities to work with innovative companies on blockchain initiatives.



## TokenMason

.... is a leading blockchain development company that helps organizations build customized blockchain solutions, such as ICOs, smart contracts, apps that use cryptocurrency, decentralized exchanges and other blockchain-related projects.

<sup>1</sup> <https://www2.deloitte.com/us/en/insights/topics/understanding-blockchain-potential.html>

# OVERVIEW OF BLOCKCHAIN

## What is Blockchain?

Blockchain is a distributed database that stores data in blocks that are linked together by nodes in a peer-to-peer network. As new data comes in, it is entered into a new block. Once the block is filled with data, it is chained onto the previous block, which makes the data chained together in chronological order.

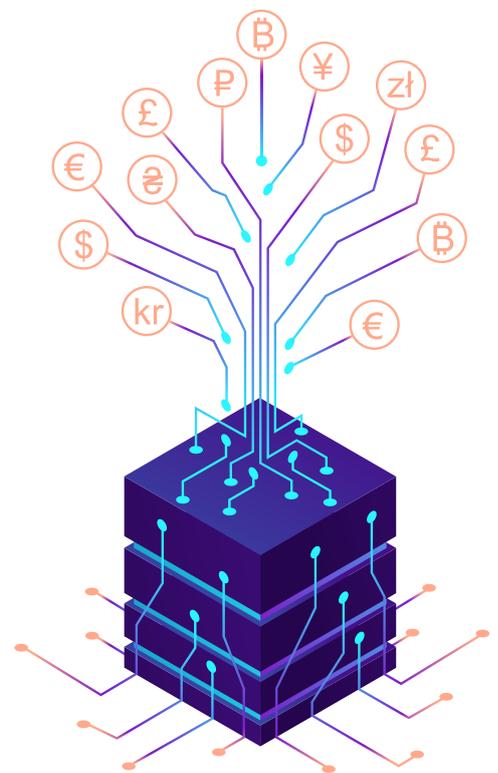
Each block contains a unique identifier (known as a cryptographic hash) about the block previous to it. These blocks form a chain, with each additional block reinforcing the ones before it and including a timestamp that proves that the data contained in the block existed when the block was created. This decentralized system of recording information makes blockchains immutable, meaning that the data entered in the blockchain is irreversible. In this way, records of transactions in the blockchain cannot be altered, deleted or destroyed.

If somebody tries to alter a record at one instance of the database, the other nodes would not be altered and would prevent a bad actor from doing so. To validate new data entries to a block, the majority of users in the peer-to-peer network would have to agree to it. In other words, the consensus reached in the peer-to-peer network prevents bad actors from validating incorrect or fraudulent transactions.

## Benefits of Blockchain

Blockchain assures the security of a record of data is maintained as users in the peer-to-peer network validates transactions that are correct and not fraudulent. Blockchain is used in a decentralized way so that no single person or group has control, rather all users in the peer-to-peer network collectively retain control. Because of the decentralized nature of blockchain, when it comes to transacting, there is no need for a third-party or intermediary (such as a bank), which may charge excessive fees.

Transactions recorded on the blockchain are transparent and can be viewed using a personal node or blockchain explorer, which is an online tool that enables you to search for real-time and historical information about a blockchain. The records stored in the blockchain are also encrypted, which means that only the owner of a record can decrypt it to reveal their identity. As a result, blockchains provide users with anonymity while maintaining transparency.



## Examples of Blockchain in Practice

Different types of information can be stored on a blockchain, but the most common use so far has been as a ledger for transactions. Blockchains are best known for their essential role in cryptocurrencies (further discussed in the next section of the paper) such as Bitcoin for maintaining a secure and decentralized record of transactions.

Blockchain technology can also be used in many other ways. For example, blockchain technology is currently being used to track items in the transportation and logistics industry. Blockchain technology is also being used in the health care industry. In response to the COVID-19 pandemic, blockchain was used to keep track of people who had the antibody tests and could be immune to the virus.

The practical applications of blockchain technology are endless for different industries and businesses. Here at TokenMason, we are just getting started. Contact us if you would like to learn how blockchain can transform your business.



## Cryptocurrencies

Cryptocurrencies are digital currencies that are secured by cryptography using blockchain technology. Cryptocurrencies are based on blockchains and are not issued by any central authority and therefore immune to government interference or manipulation. Cryptocurrencies also include cheaper and faster money transfers given there are no intermediaries such as banks that process payments and transaction fees.

Bitcoin was the first cryptocurrency. It was created in January 2009 by an unknown person whose pseudonym is Satoshi Nakamoto. The Bitcoin design inspired other cryptocurrencies, such as Ether, and other blockchain-related innovations, such as nonfungible tokens (further discussed below).

Cryptocurrencies such as Bitcoin can be mined or purchased from cryptocurrency exchanges. Crypto mining is the process by which new cryptocurrencies are entered into circulation. Miners are rewarded in cryptocurrency for solving complex hashing computational problems (using sophisticated hardware and computing power) to verify transactions that are added to the blockchain.



## Crypto Exchanges and Decentralized Exchanges (DEXs)

Cryptocurrencies can be bought, sold and traded on crypto exchanges which are online platforms to buy, sell and trade different cryptocurrencies. Some widely used crypto exchanges are Coinbase, Binance and Crypto.com.

Crypto exchanges can also be DEXs that allow for direct peer-to-peer cryptocurrency transactions without an intermediary. The process of launching new cryptocurrency coins is done through an ICO, which is discussed in the next section of the paper.

## Nonfungible Tokens (NFTs)

NFTs are cryptographic assets that use blockchain technology, including unique identification codes. Similar to cryptocurrencies, NFTs contain transaction and ownership details on the blockchain and cannot be replicated or altered. The distinguishing factor with NFTs is that they are not fungible. In other words, they are unique and not interchangeable. NFTs are digital representations of assets and have been likened to digital certificates because each token contains a unique, non-transferable identity to distinguish it from other tokens.

NFTs can include artwork, music, photography, gaming, collectables and even digital assets in virtual worlds, such as the metaverse. NFTs can be used as a store of value to represent the property rights of a digital asset based on its utility. Tokenizing digital assets allows these assets to be efficiently bought, sold and traded while reducing the possibility of fraud. NFTs can be bought and sold using cryptocurrencies using popular NFT marketplaces like OpenSea and be offered on more decentralized and customized NFT marketplaces to avoid transaction fees.

## Smart Contracts

Smart contracts are agreements between parties that are recorded using blockchain technology, making these agreements immutable and tamper-proof. Smart contracts are automatically executed when the predetermined conditions are met, without the need for human intervention or intermediaries to execute the contract-making the process more objective and prone to human errors, bias or judgement.

Decentralized finance (DeFi) platforms like Ethereum, Solana and Cardano use blockchain technology to create smart contracts which benefit from immutability as well as making transactions faster and cheaper given there are no intermediaries.

Smart contracts are already being used in legal services, land and vehicle registration and complex financial transactions. Smart contracts can streamline manual processes and bypass inefficiencies and bottlenecks.



# INITIAL COIN OFFERINGS AND TOKENIZATION

## What is an Initial Coin Offering?

An ICO is a type of funding using cryptocurrencies. In an ICO, new tokens are sold to investors in exchange for existing cryptocurrency. These new tokens are promoted as future functional units of currency after the ICO project is completed.

An ICO can be a source of capital for companies looking to raise funds for expansion. ICOs have recently become a popular fundraising method used by start-ups that are typically related to cryptocurrency and blockchain.

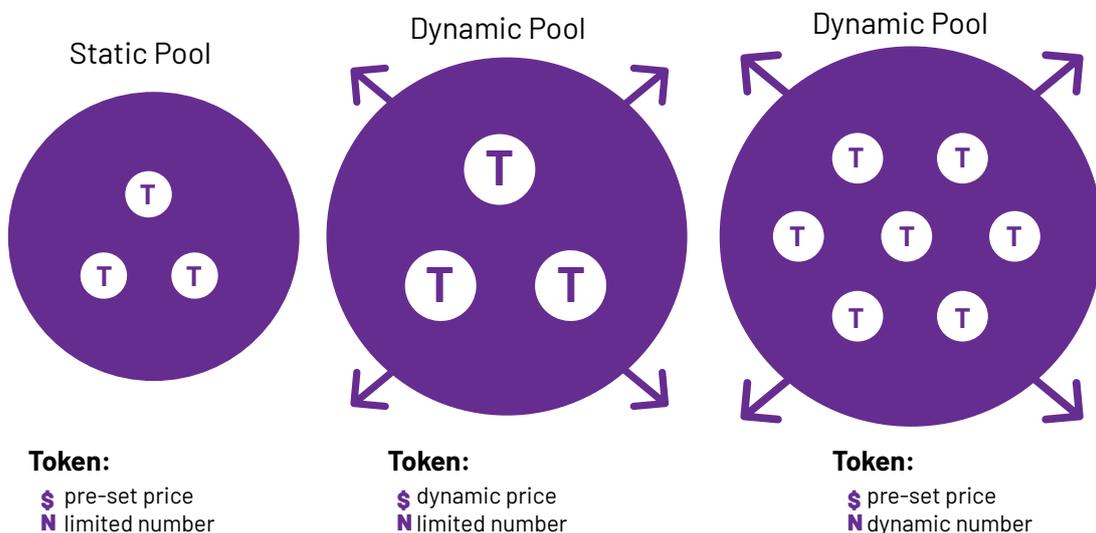
Blockchain technology can facilitate the generation of cryptocurrency tokens, making it faster and cost-efficient for companies to raise capital via ICOs. ICO managers generate tokens according to the terms of the ICO and distribute the tokens to investors in exchange for cryptocurrency. The ICO process is explained in additional detail below.

## How an ICO works?

When a company or individual wants to raise money through an ICO, the ICO manager's first step is to determine how they will structure it. ICOs can be structured in a few different ways:

1. Static supply and static price: A company sets a specific funding goal or limit, which means that each token sold in the ICO has a pre-set price, and the total token supply is fixed.
2. Static supply and dynamic price: An ICO has a static supply of tokens and a dynamic funding goal. This means the amount of funds received in the ICO determines the overall price per token.
3. Dynamic supply and static price: Some ICOs have a dynamic token supply but a static price, meaning that the amount of funding received determines the supply.

## ICO Structure



In addition to how the ICO is structured, ICO managers need to choose whether they would like to create their own hashing algorithm or “fork a coin” by utilizing existing blockchain protocols from communities. When it comes to creating a token (e.g., fungibility and smart contract capability), the ICO manager will also need to determine which standard to work with, such as Ethereum’s ERC20, ERC223 or ERC721 standards.

## How Do I Start My Own ICO?

Once you determine the structure and standard you want to use for your new token, you will need to create a white paper, which is a document explaining what your token is and what it aims to do. The white paper should be an engaging and informative document and available to potential investors via a website dedicated to the token. The white paper is used to explain important aspects of the ICO:

1. What the ICO is about and what problem does it solve
2. The amount of funds that needs to be raised for the ICO to be successful
3. How many of the virtual tokens the founders will keep
4. What types of which currencies will be accepted
5. Schedule and key dates of the ICO campaign

In the fundraising stage, the cryptocurrencies collected should be stored in escrow using a crypto wallet. If the funds raised in an ICO is less than the minimum amount required by the ICO’s criteria, then the ICO would be unsuccessful and all the cryptocurrencies should be returned to the project’s investors. If the funding requirements are met within the specified time period, then the funds raised can be spent in pursuit of the ICO project.

Creating tokens on the blockchain is a highly technical and complex process, which is why specialist skills and capabilities are essential to launching a successful ICO. Finding high-quality developers for your ICO or blockchain-related project will be paramount to the success of your project. One of the most important decisions you will make is hiring an experienced and specialist developer like TokenMason to successfully launch your token. TokenMason’s services are discussed in section below.

# HOW TOKENMASON CAN ASSIST

TokenMason is a leading blockchain development company and helps organizations build customized blockchain solutions such as ICOs, smart contracts, apps that use cryptocurrency, decentralized exchanges and other blockchain-related projects.

TokenMason is the one-stop shop for blockchain application development services. Our specialist team and deep knowledge will help develop your customized blockchain token, coin or project in the fastest and cheapest way possible.

Get access to the most advanced blockchain solutions and watch us turn your ideas into reality at lightning pace. Our service offering is competitive, flexible and tailored to your exact requirements. Below are some examples of blockchain technologies and frameworks we have worked with previously



## Our Services



### Cryptocurrency and NFT creation

We work with you on planning, design, development and distribution of your custom cryptocurrency and/or token



### ICO development

End-to-end service on ICO design, development and distribution



### NFT Marketplace

Provides you a fast and reliable NFT marketplace development platform



### Bitcoin and Ethereum App Development

Create secure and decentralized apps for cryptocurrencies such as Bitcoin and Ethereum



### Smart Contract and Custom Wallet Development

Develop your customized smart contract, wallet and transfer mechanism using blockchain



### Blockchain Consulting

Bespoke consulting for blockchain planning, design, development, strategy, marketing and distribution

# CONCLUSION

Blockchain is a game-changing technology, and it is here to stay. The next decades will prove to be an important period of growth for blockchain that will bring many new opportunities for disruption and innovation.

We hope you have found this white paper valuable. Whether it is to do with tokenizing a digital asset, launching a decentralized exchange or developing a blockchain-related supply-chain solution, TokenMason is here to assist.

Submit an enquiry if you would like to receive a quote for your customized blockchain project or discuss a strategy to make your blockchain-related idea a reality.

TokenMason welcomes the opportunity to discuss how we may be able to assist.



[www.tokenmason.com](http://www.tokenmason.com)