



Tokens made easy

Tokenization Use Cases Bible 2023



Featured in:

Forbes

| Handelsblatt

Frankfurter Allgemeine

Bloomberg

July 2023



Foreword

The digital assets ecosystem has recently been marked by notable volatility due to regulatory uncertainty, particularly in the US. General macroeconomic pressure also widely affects the technology sector. Amidst these tumultuous times, tokenization has emerged as the trending topic of the crypto space.

Tokenization is the process of representing valuable assets or rights on a blockchain through the creation of digital tokens. Tokenization gained significant attention and traction after first financial institutions have implemented foundational digital asset infrastructure over the last few years.

This infrastructure foundation allows financial institutions and web3 companies alike to capture the core benefits of tokenization. These benefits include instant global transfer of assets, fractionalization, faster settlement, eliminated counterparty risk, secondary liquidity and many more.

Progressive regulatory frameworks in Europe such as the Electronic Securities Act in Germany as well as the EU DLT Pilot Regime and MiCA further foster adoption.

With this Tokenization Use Cases Bible we want to give you the ultimate overview of the opportunities that tokenization already has today. Each use case is described in a generic way. Additionally, real-world examples outline the transformative power of tokenization in areas such as capital markets, real-world assets, natively digital assets and certifications.

We further showcase how Bitbond Token Tool can be used to implement each use case effortlessly – we are proud to continuously support banks, corporates and web3 projects with tokenization infrastructure and expertise to help them make best use of tokenization.

We want to extend our gratitude to our loyal customers, partners and team members with whom we continue to shape and innovate the tokenization space.

We hope you enjoy reading our report and share our excitement when discovering the variety of use cases and the maturity of adoption across industries. If you feel inspired, feel free to reach out to our team to discuss how we can assist you to realize your use case.

Keep on tokenizing!

With kind regards from your Bitbond team



Radoslav Albrecht
Founder & CEO



Felix Stremmer
COO



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Finance Associate



Overview of the covered use case categories

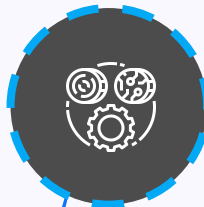
Digital twins of physical assets

Real Estate, Art, Industrial Assets, Collectibles



Natively digital assets

Digital Art, Music, Digital Collectibles, Gaming



Certifications

Vouchers, Loyalty Points, Awards, Entry Tickets, Web Domains, Proof of Maintenance, Proof of Participation, Diploma & Certificates



Tokenization of financial assets

Bonds, Equities, Loans, Commodities, Private
Equity Funds, Fiat-Backed Stable Coins,
Investment Funds



Other tokens

Utility Tokens, Governance Tokens





Tokenization best practices: overview of Token Tool functions

For each use case in our report you will find a section with implementation best practices. You can apply these best practises by using our tokenization product Token Tool. Here is an overview of supported token standards and features and a description of their capabilities.



Fungible
Token

Fungible tokens (ERC-20/ERC-1400) are used when each token is equal to one another, e.g. bonds within the same issuance or tokens with the same utility or rights. They can be divisible and are often traded via centralized or decentralized exchanges.



Non-Fungible
Token

Non-fungible tokens (ERC-721/ERC-1155) are used when each token is unique or represents a specific/unique asset. NFTs are not divisible, have unique IDs and are typically traded via marketplaces or auctions.



Create Token

Token Tool allows users to effortlessly create and configure tokens across leading EVM chains. Configuration options include basic token parameters and advanced features such as black- and whitelisting, force transfer and transaction fees.



Manage
Token

Token issuers can use Token Tool to manage the lifecycle of their token via an intuitive interface. Features include minting and burning tokens, managing black- and whitelist, updating documentation and transferring ownership



Distribute
Token

To send tokens to many investors at scale, Token Tool offers a multisend feature to batch hundreds of individual transfers into a single transaction. This feature helps users streamline their distribution process and save gas fees.



Create Token
Locker

The token locker enables token issuers to implement lock-up periods for their tokens via a dedicated smart contract. Users can specify the amount of tokens to be locked and the lock up period.



Create Token
Sale

Token Tool's token sale smart contract enables token sellers to execute a token offering end-to-end on chain. Investments can be accepted in any on-chain currency, a whitelist feature allows to implement KYC checks. Issuers can specify.



Manage
Token Sale

Token Tool offers token issuers an admin panel to manage their ongoing token sales and onboard investors to the whitelist. To embed a sale on their website, Token Tool offers an iframe feature allowing investors to connect their wallet and submit an investment.



Create NFT

Token Tool creators users to effortlessly create and configure NFTs across leading EVM chains. NFTs can be created as collections or as single assets. Creators can also run a NF sale at zero cost to save fees they would otherwise have to pay on large NFT marketplaces.



Manage NFT

Creators can use Token Tool to manage the lifecycle of their NFTs via an intuitive interface. Features include overview with key data, contact address, minting page, add media/metadata, whitelisting management












Distribute
NFT

To distribute NFTs at scale, Token Tool offers a multisend feature to batch hundreds of individual transfers into a single transaction. This feature helps users streamline their distribution process and save gas fees.



Fungible tokens – configuration options

Configuration	Description	Options	Token feature	Description	Options
Token name 	Meaningful name with identifying function	Mandatory	Apply burn fee (deflationary token) 	Specified portion of every transfer of the token is burnt	Optional, updatable
Symbol 	Token ticker serves as an abbreviation to the name	Mandatory	Blacklisting of addresses 	Block token transfers to and from individual addresses	Optional, updatable
Number of tokens 	Token supply, driven by token denomination	Can be 0 + mint later	Ownership of smart contract 	Change owner of smart contract who can manage token features	Updatable
Number of decimals 	Determines the divisibility of the asset	0 - 18	Asset documentation 	Attach documents via hash or URL to tokens (ERC-1643)	Optional, updatable
Burning of tokens 	Capability to decrease token supply	Optional, permanent	Whitelisting of addresses 	Transfers to and from white-listed addresses (ERC-1594)	Optional, updatable
Minting of tokens 	Capability to increase token supply	Optional, permanent	Max token per address 	Limit the token amount any address can hold (ERC-1594)	Optional, updatable
Pausing of tokens 	Capability to pause token transfers globally	Optional, on/off	Force transfer ("Clawback") 	Transfer tokens between third party wallets (ERC-1410)	Optional, permanent
Charge transaction tax/fee 	For every token transfer, a certain fee is charged in the token and sent to a wallet address of choice	Optional, on/off			

ERC-20 features

Security token features



Non-fungible tokens – configuration options

Collection setup

Single asset mint



Designed for NFT(s) based on one single media item

Collection mint



Designed for NFT collections with multiple media items

File Type



Upload wide range of file types, including IMG, JPG, PNG, GIF and MP4

Token Configurations

NFT name



Meaningful name with identifying function

Symbol



Token ticker serves as an abbreviation to the name

Description



Description of up to 500 characters of free text

Media upload



Upload files via drag and drop or as a batch by importing a list of metadata links

NFT public mint

Time frame



Start and end time from and until when the NFT can be minted

Access restrictions



Mint amount limits as well as whitelisting requirements for users

Price



Price to mint one NFT

NFT multisend

List of recipients



List of all recipient that should receive the NFT

NFT IDs per recipient



List of all NFT IDs per recipient

Tokenization use case categories

1		Tokenization of financial assets	7
2		Digital twins of physical assets	14
3		Natively digital assets	19
4		Certifications	24
5		Other tokens	33



Bonds

Bond tokenization involves issuing traditional bonds in natively digital form on a blockchain, which represent ownership or claims to the underlying bond. The tokens are compliant with regulatory frameworks and enable the digitization of the bond's lifecycle, including issuance, trading, and settlement.

This use case is relevant for



Financial
Institutions



Governments &
State agents



Corporates /
SMEs / SPVs

Benefits for issuers

- ▶ Efficient issuance process with immutable ownership records and automated interest payments
- ▶ Instant Delivery versus Payment with no counterparty risk directly reducing costs
- ▶ Simpler custody without CSD and easy global transferability

Benefits for investors

- ▶ Higher secondary market liquidity at smaller denominations
- ▶ 24/7 instant settlement
- ▶ Increased transparency with real-time information about performance and ownership

Benefits for the bank / arranger

- ▶ Automation of lifecycle management (issuance, corporate actions) reducing operational costs and risks
- ▶ New business opportunities with new services and platforms

Token standard



Fungible
Token

Token Tool features



Create
Token



Manage
Token



Distribute
Token

Case Study: ABN AMRO €450k bond tokenization

January 2023



ABN·AMRO

ABN AMRO is the first European bank to act as the lead arranger for a digital bond of a Midcap client on a public blockchain. Purchased by a select group of institutional investors, the groundbreaking bond raised €450,000 on behalf of aircraft part-out company APOC, one of the bank's commercial clients.

ABN AMRO's Chief Strategy & Innovation Edwin van Bommel: *"This updated digital solution for providing our medium-sized and larger commercial clients with leveraged financing fills a gap between traditional bonds and crowdfunding. Thanks to the blockchain, it's highly efficient and very client-friendly."*

Technology stack



Security token created
with Token Tool



Token deployed on the
Stellar blockchain



Token contract ownership
and transaction approval





Equities

Equity tokenization involves issuing company shares in a natively digital form on a blockchain allowing for ownership fractionalisation. Tokenization enhances accessibility, transparency, liquidity and security while streamlining processes and reducing transaction costs.

This use case is relevant for



Financial
Institutions



Corporates /
SMEs / SPVs

Benefits for issuers

- ▶ Access to capital from a broader investor base
- ▶ Increased liquidity through fractional ownership and more efficient trading
- ▶ Efficient issuance process and automated dividend payments

Benefits for investors

- ▶ Higher accessibility of investments globally
- ▶ Enhanced liquidity for easier buying and selling of tokens
- ▶ 24/7 instant settlement

Benefits for the bank / arranger

- ▶ Expanded offerings and revenue streams by incorporating tokenized equities
- ▶ Streamlined processes and cost efficiency through simplified trading and settlement
- ▶ Automation of lifecycle management (issuance corporate actions) reducing operational costs and risks

Token standard



Fungible
Token

Token Tool features



Create Token



Manage
Token



Distribute
Token



Create Token
Locker

Case Study: Exodus raised capital using an equity instrument

June 2021

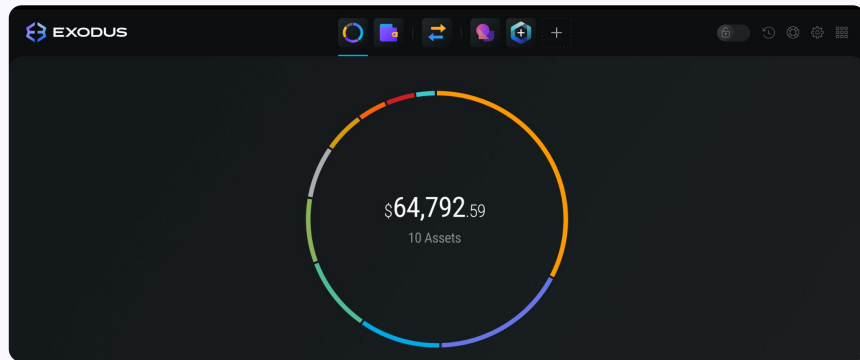
Exodus is a multi chain crypto wallet founded in 2015, currently supporting 250+ digital assets



EXODUS

In June 2021 Exodus announced a public offering. The Reg A+ offering is designed for Exodus to raise capital (Exodus can sell up to \$75 million in shares) to help grow their company, but also to let Exodus customers, own a stake in the different enterprises.

Exodus COO Sebastian Milla Goni: *"This is a compliant, transparent public offering by a profitable company with a working product. What better way to encourage product loyalty than by letting our customers own part of our business?"* Exodus CEO JP Richardson added, *"While raising money through a Series A is an easy option, we decided to pursue a more inclusive route that enables anybody to invest directly in Exodus."*





Commodities

Commodities tokenization involves representing physical commodities as digital tokens on a blockchain. The tokens represent ownership or claims to the underlying commodities, enabling efficient trading, liquidity, and accessibility for investors. It streamlines transfers, reduces costs, and enhances transparency and security in commodity markets.

This use case is relevant for



Financial
Institutions



Corporates /
SMEs / SPVs

Benefits for issuers

- ▶ Increased efficiency in the issuance and settlement of commodities
- ▶ Address a broader investor base
- ▶ Improved transparency and traceability of commodity supply chains through real-time information
- ▶ Streamlined processes and cost efficiency through automated commodity trading
- ▶ Risk mitigation through improved transparency and secure transactions
- ▶ Expanded offerings and revenue streams by incorporating tokenized commodities

Benefits for investors

- ▶ Diversification opportunities by easily investing in a range of commodities
- ▶ Enhanced liquidity through fractional ownership and efficient trading
- ▶ Reduced counterparty risk by direct ownership of tokenized commodities

Token standard



Fungible
Token



Create Token



Manage
Token



Distribute
Token



Create Token
Locker

Token Tool features

Case Study: Raiffeisen Bank International commodities tokenization PoC

December 2022

Raiffeisenbank International (RBI) is a large Austrian commercial bank with a strong presence in Central and Eastern Europe

RBI is evaluating an asset-agnostic tokenization platform covering its entire product portfolio



As a starting point, RBI focused on tokenizing commodities

"We use tokens that represent existing banking products," explains Gernot Pretenthaler, Senior Strategic Partnerships and Ecosystems Manager at RBI

Technology stack



ERC-1400 security token
created with Token Tool



Smart contracts deployed
on Polygon



Transaction approval and
custody via Harmonize





Investment Funds

Investment fund tokenization involves representing ownership of assets in an investment fund in a natively digital form on the blockchain. Tokenization can be applied to various types of investment funds, such as mutual funds, hedge funds, private equity funds, or real estate funds.

This use case is relevant for



Financial
Institutions



Fund Managers

Benefits for issuers

- ▶ Address a broader investor base
- ▶ Increased fund liquidity, potentially enabling easier trading and exits
- ▶ Enhanced capital formation by tapping into new sources of capital thanks to fractionalization

Benefits for investors

- ▶ Access to PE investments through fractional ownership and easier trading of shares
- ▶ Improved transparency and information flow with real-time access to fund performance and updates, enhancing decision-making and visibility into investments

Benefits for the fund

- ▶ Expanded offerings and revenue streams by incorporating tokenized PE tokens
- ▶ Enhanced efficiency in fund management with automated processes & smart contract
- ▶ Market expansion by catering to a broader investor base and offering alt investments

Token standard



Fungible
Token



Create Token



Manage
Token



Distribute
Token



Create Token
Locker

Token Tool features

Case Study: Interest tokenization of KKR's Health Care Strategic Growth Fund

January 2023

KKR

Exposure to one of KKR's alternative investing strategies is being made available in a digital version through the new Securitize tokenized fund.

The Fund offers exposure to KKR's health care growth equity investing strategy and is run by Securitize Capital, the digital asset management division of Securitize.

"With its ability to digitize operational inefficiencies and increase ease of use for individual investors, blockchain technology has the potential to play an important role in the future of private markets," said Dan Parant, Managing Director and Co-Head of U.S. Private Wealth at KKR.

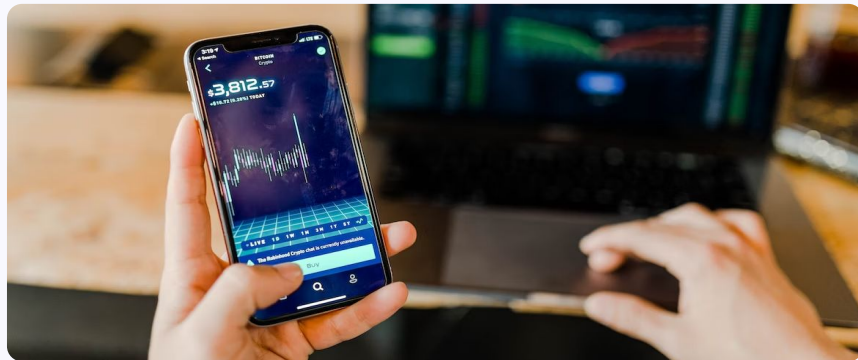
Technology stack



ERC-20 token created on
platform



Smart contracts deployed
on Avalanche





Loans

Loan tokenization involves issuing traditional loans in a natively digital on the blockchain. Each token represents a specific loan and its associated terms, such as principal amount, interest rate, repayment schedule, and other contractual details.

This use case is relevant for



Financial
Institutions



Corporates /
SMEs / SPVs

Benefits for issuers

- ▶ Access to capital from a broader investor base
- ▶ Increased liquidity, potentially enabling easier trading
- ▶ Streamlined loan management processes through digitization and automation

Benefits for investors

- ▶ Increases investment opportunities by accessing tokenized loan assets
- ▶ Improved liquidity through potential secondary market trading of loan assets
- ▶ Improved transparency and information flow with real-time access to fund performance

Benefits for the bank / arranger

- ▶ Expanded offerings and revenue streams by incorporating tokenized loans
- ▶ Enhanced efficiency in loan operations through automated processes & smart contract reducing operational costs and risks
- ▶ Market expansion by catering to a broader investor based and offering alt investments

Token standard



Fungible
Token



Create Token



Manage
Token



Distribute
Token



Create Token
Locker

Token Tool features

Case Study: Tokenization of syndicated loans

June 2022

A Bitbond bank customer specialized in serving midcap companies launched a pilot project to tokenize syndicated loans. The project covered all key transaction stakeholders, including the loan agency, underwriter, borrower and various syndication partners.

Using permissioned tokens created with Token Tool in combination with a Safe multi-sig, the customer was able to reflect the entire syndication process on the Polygon network. The project included underwriting, interest payments and a DvP settlement of secondaries against EUR stable coins that were issued by the bank. As a result, the customer was able to substantially reduce processing time, organizational overhead and associated costs.

Technology stack



ERC-1400 security token
created with Token Tool



Smart contracts deployed
on Polygon



Token contract ownership
and transaction approval





Fiat-backed Stable Coins

Fiat-backed stablecoins are digital currencies pegged to traditional fiat currencies. They maintain stability through reserves of the underlying fiat currency. Each unit represents a specific amount of the fiat currency, reducing price volatility. Stablecoins enable digital transactions and value storage while retaining familiarity and stability.

This use case is relevant for



Financial
Institutions



Corporates /
SMEs / SPVs



Merchants /
E-commerce /
Remittance

Benefits for issuers

- ▶ Instant DvP at t+0 with no counterparty risk directly reducing costs
- ▶ Simpler custody without CSD and easy global transferability
- ▶ Enhanced transparency through auditable and accountable financial services

Benefits for investors

- ▶ Price stability and reliable store of value
- ▶ Global accessibility for instant cross-border transactions
- ▶ Improved transparency and information flow

Benefits for the bank / arranger

- ▶ Cost-effective cross-border transactions with reduced costs, settlement times and immutable records
- ▶ Increased speed and efficiency in payment processing
- ▶ Regulatory compliance with compliant and transparent digital asset solutions

Token standard



Fungible
Token

Token Tool features



Create Token



Manage
Token



Distribute
Token



Create Token
Locker

Case Study: US Dollar pegged stable coin USDC

September 2018



USDCoin

Explaining the rationale behind USDC, Circle co-founders Jeremy Allaire and Sean Neville wrote: "We believe that an open internet of value exchange can transform and integrate the world more deeply, eventually eliminating artificial economic borders and enabling a more efficient and inclusive global marketplace that connects every person on the planet."

USD Coin (known by its ticker USDC) is a stablecoin that is pegged to the US Dollar on a 1:1 basis. Every unit of this cryptocurrency in circulation is backed up by \$1 that is held in reserve, in a mix of cash and short-term U.S. Treasury bonds. The Centre consortium (Circle and Coinbase Cryptocurrency exchange), which is behind this asset, says USDC is issued by regulated financial institutions.

USDC's connection to the traditional financial sector

In the wake of a \$400 million fundraising round in which BlackRock, Fidelity, Fin Capital, and Marshall Wace LLP participated, BlackRock disclosed that it has "entered into a broader strategic partnership with Circle, which includes exploring capital market applications for USDC."

Along with collaborating with the biggest asset management in the world, the stablecoin provider has also signed agreements with well-known figures in traditional finance. It was announced in March that BNY Mellon, the oldest bank in the United States, will be the main custodian of the assets used to underpin USDC stablecoins. BlackRock will manage USDC cash reserves as one of the primary asset managers, according to a press statement.

Tokenization use case categories

1		Tokenization of financial assets	7
2		Digital twins of physical assets	14
3		Natively digital assets	19
4		Certifications	24
5		Other tokens	33



Real Estate

Real estate tokenization is the conversion of physical properties into digital tokens on a blockchain. This divides assets into smaller, accessible units represented by tokens, enabling fractional ownership and secure trading.

This use case is relevant for



Financial
Institutions



Homeowners
RE Corporates



Buyers /
Investors

Benefits for homeowners and RE corporates

- ▶ Access to capital from a broader investor base
- ▶ Increased liquidity, potentially enabling easier trading
- ▶ Streamlined loan management processes through digitization and automation

Benefits for investors

- ▶ Portfolio diversification by gaining exposure to Real Estate assets across different locations/types
- ▶ Access to new passive income at a low cost
- ▶ Improved transparency, information flow and secondary trading

Benefits for financial institutions

- ▶ New revenue streams, earning fees from issuance and management.
- ▶ Enhanced efficiency and transparency with streamlined transactions and transparent ownership records

Token standard



Fungible
Token

Token Tool features



Create Token



Manage
Token



Distribute
Token



Create Token
Locker



Create Token
Sale



Manage
Token Sale

Case Study: Immoscout24 real estate tokenization platform

January 2023

Immoscout24 is Germany's largest online platform for renting and buying apartments



Leveraging its existing brand and customer reach, Immoscout24 launched a tokenization platform for real estate in collaboration with real estate firm Condo Group

Investors can invest starting from €500 and profit from rent revenues and value appreciation

Technology stack



ERC-20 token created with
Token Tool



Smart contracts deployed
on Polygon



Token contract ownership
and transaction approval

Projekte

Finde Deine Wunschimobilien zum investieren...

Exklusive Wohnung in der Hansestadt

Progn. Gesamtrendite p.a.* **6,0 %**

Erwartete Auszahlung p.a.* **4,6 %**

Wohnung 1 Mindestanlage 500 €

Zum Projekt

Zentrales Wohnen in der Hauptstadt

Progn. Gesamtrendite p.a.* **6,6 %**

Erwartete Auszahlung p.a.* **4,0 %**

Wohnungen 4 Mindestanlage 500 €

Zum Projekt

Wohnungstrio in Hamburg

Progn. Gesamtrendite p.a.* **6,2 %**

Erwartete Auszahlung p.a.* **4,1 %**

Wohnungen 3 Mindestanlage 500 €

Zum Projekt



Art

Art tokenization is the conversion of art ownership into digital tokens on the blockchain. These tokens represent fractional ownership, increasing liquidity, accessibility, and transfer convenience. It applies to various art forms such as paintings, sculptures, and other creative works.

This use case is relevant for



Artists /
Collectors



Buyers /
Investors



Galleries /
Curators /
Auctions

Benefits for artists & collectors

- ▶ New monetization opportunities through fractionalization and broader investor base
- ▶ Increased exposure and recognition through wider market reach
- ▶ Enhanced transparency and trust in art dealing through the use of blockchain technology

Benefits for investors

- ▶ Lower barriers to entry allowing for better portfolio diversification
- ▶ Potential capital appreciation and investment opportunities with easier trading
- ▶ Increased transparency and trust with real-time information about ownership

Benefits for galleries & curators

- ▶ Efficient transfer of ownership and reduced intermediaries in art transactions
- ▶ Innovative engagement with audiences through digital exhibition and curated experience
- ▶ Increased market reach by showcasing and trading art in digital format

Token standard



Fungible
Token

Token Tool features



Create Token



Manage
Token



Distribute
Token



Create Token
Locker



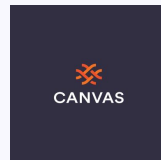
Create Token
Sale



Manage
Token Sale

Case Study: Canvas art tokenization

May 2023



Canvas is an Australia-based provider of digital financial infrastructure, offering a privacy-focused Layer 2 solution for financial institutions built on StarkEx

The firm offers a gateway for institutional clients to tokenize a variety of financial instruments and real world assets

On behalf of a client, Canvas tokenized the artwork Harbour Grey Day (1978) by famous Australian artist Brett Whiteley

Technology stack



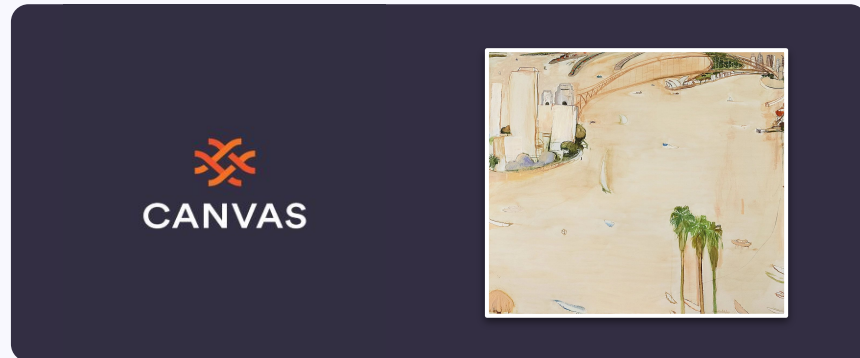
ERC-1400 token created
with Token Tool



Smart contracts deployed
on Ethereum



Token contract ownership
and transaction approval





Industrial Assets

Industrial asset tokenization involves representing ownership or economic rights of assets like machinery, equipment, factories, and warehouses in a natively digital form on the blockchain. The digital tokens allow investors to buy, sell, or trade those underlying assets in a secure and transparent manner.

This use case is relevant for



Financial
Institutions



Industrial Asset
Owners



Buyers /
Investors

Benefits for industrial asset owners

- ▶ Liquidity and capital access by fractionalizing ownership
- ▶ Diversification of funding sources by attracting a broader investor base
- ▶ Increased market exposure and potential asset appreciation through wider market participation and trading of fractional tokens

Benefits for investors

- ▶ Lower barriers to entry allowing for better portfolio diversification
- ▶ Potential capital appreciation and investment opportunities with easier trading
- ▶ Increased transparency and trust with real-time information about ownership and usage

Benefits for financial institutions

- ▶ Efficient transfer of ownership and reduced intermediaries in transactions
- ▶ New revenue streams by offering tokenization services
- ▶ Improved efficiency & transparency in asset trading, settlement & management process

Token standard



Fungible
Token



Create Token



Manage
Token



Distribute
Token



Create Token
Locker



Create Token
Sale



Manage
Token Sale

Token Tool features

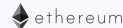
Case Study: overview of how industrial asset tokenization could work

- 1 Identify and evaluate industrial assets for tokenization
- 2 Develop a tokenization plan, determining ownership representation
- 3 Ensure legal and regulatory compliance
- 4 Create and issue digital tokens on the blockchain
- 5 Offer tokenized assets to interested investors
- 6 Manage and operate assets while reflecting ownership through tokens
- 7 Enable trading and liquidity on secondary markets
- 8 Provide rights distribution, reporting, and redemption options

Technology stack



ERC-20/1400 tokens
created with Token Tool



Smart contracts deployed
on Polygon/Ethereum

Depends on Custody
approach

Token contract ownership
and transaction approval





Collectibles

Collectible tokenization is the conversion of ownership or rights to collectible items into natively digital form on the blockchain. Collectible tokenization can be applied to various types of collectibles, such as rare coins, stamps, sports memorabilia, vintage toys, or other items with value stemming from their rarity, historical significance, or cultural importance.

This use case is relevant for



Artists /
Collectors



Buyers /
Investors



Curators /
Auctions /
Corporates

Benefits for artists & collectors

- ▶ Enhanced monetization opportunities through fractionalization and broader investor base
- ▶ Increased exposure and recognition through wider market reach
- ▶ Enhanced transparency and trust in dealing through the use of blockchain technology

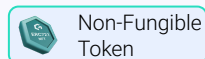
Benefits for investors

- ▶ Lower barriers to entry allowing for better portfolio diversification
- ▶ Potential capital appreciation and investment opportunities with easier trading
- ▶ Increased transparency and trust with real-time information about ownership

Benefits for curators, auctions & corporates

- ▶ Efficient transfer of ownership and reduced intermediaries in collectible transactions
- ▶ Innovative engagement with audiences through digital exhibition and curated experience
- ▶ Increased market reach by showcasing and trading collectibles in digital format

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: Tokenization of real world assets in private banking

April 2023

VP Bank is a Liechtenstein-based private bank active in investment advisory and asset management



Tokenize valuable collectibles such as art and watches (Picture: vintage Audemars Piguet Royal Oak)

Serve issuers and investors with both infrastructure and advisory services

Replace legacy digital assets product suite from prior POC

Technology stack



ERC-1400 token created
with Token Tool






Smart contracts deployed
on Ethereum



Transaction approval and
custody via Harmonize



Tokenization use case categories

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Digital Art

Digital art tokenization is the issuance of art into digital tokens on the blockchain. These tokens represent fractional ownership, increasing liquidity, accessibility, and transfer convenience. It applies to various art forms such as paintings, sculptures, and other creative works

This use case is relevant for



Artists /
Collectors



Buyers /
Investors



Galleries /
Curators /
Auctions

Benefits for artists & collectors

- ▶ Enhanced monetization opportunities through fractionalization and broader investor base
- ▶ Increased exposure and recognition through wider market reach
- ▶ Enhanced transparency and trust in art dealing through the use of blockchain technology

Benefits for investors

- ▶ Lower barriers to entry allowing for better portfolio diversification
- ▶ Potential capital appreciation and investment opportunities with easier trading
- ▶ Increased transparency and trust with real-time information about ownership

Benefits for galleries, curators & auctions

- ▶ Efficient transfer of ownership and reduced intermediaries in art transactions
- ▶ Innovative engagement with audiences through digital exhibition and curated experience
- ▶ Increased market reach by showcasing and trading art in digital format

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: Pak – “The Merge” sold for \$91.8 million

December 2021



Nifty Gateway

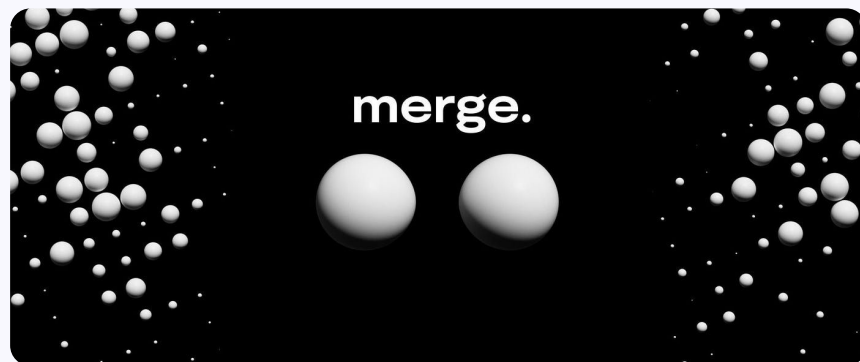
The Merge NFT is a unique dynamic NFT collection that was created by a digital artist called Murat Pak

28,000 people purchased around 266,445 pieces for \$91.8 million

The artwork features three white masses on a solid black background. The more portions or pieces people bought, the larger the masses on the artwork would become

As a result, buyers contributed to how the artwork looked in real time

Duncan Cock Foster, a cofounder of Nifty Gateway, said in an interview, *'This is the largest single artwork sale ever sold publicly. And it didn't happen at a traditional auction house, it happened on a web3 platform.'*





Digital Collectibles

Digital collectibles are natively digital assets such as digital artwork, virtual trading cards, in-game items, or other collectibles. As non-fungible tokens, digital collectibles can be held, transferred and traded by their owners without intermediaries. The value of digital collectibles is often determined by their scarcity, design, features or prestige.

This use case is relevant for:



Artists / Creators



Investors / Collectors



Curators / Auctions / Corporates

Benefits for artists & creators

- ▶ Enhanced monetization opportunities through disintermediation (direct sales to collectors/investors) and tracking of secondary transactions
- ▶ Increased exposure and recognition through wider market reach
- ▶ Enhanced transparency and trust in dealing through the use of blockchain technology

Benefits for investors

- ▶ Lower barriers to entry allowing for better portfolio diversification
- ▶ Portfolio diversification with alternative asset class inclusion and easy trading
- ▶ Increased transparency and trust with real-time information about ownership and pricing

Benefits for curators, auctions & corporates

- ▶ Efficient transfer of ownership and reduced intermediaries in collectible transactions
- ▶ Curatorial opportunities for showcasing tokenized collections
- ▶ Collaboration and licensing opportunities with artists and creators

Token standard



Non-Fungible Token

Token Tool features



Create NFT



Manage NFT



Distribute NFT

Case Study: Sorare digital card collectibles

September 2018

Sorare is a fantasy sport cryptocurrency-based game developed in 2018



Sorare users use the ERC-721 token standard to buy, sell, and trade player cards represented as NFTs

Points are awarded in the game based on the professional soccer players' on-pitch statistics

Technology stack



ERC-721 token created in-house



Smart contracts deployed on Ethereum

Depends on Custody approach

Token contract ownership and transaction approval





Music

Applications of tokenization in music are the conversion of ownerships or rights to music, albums, or artist revenue streams into natively digital form on the blockchain. This enables increased liquidity, accessibility, and transfer convenience for various aspects of the music industry, including copyrights, publishing rights, and performance royalties

This use case is relevant for:



Artists /
Musicians



Labels /
Publishers



Music
Streaming
Services

Benefits for artists & musicians

- ▶ Enhanced monetization opportunities through fractionalization and broader investor base
- ▶ Greater control and transparency over intellectual property and royalties
- ▶ Enhanced transparency and trust in dealing through the use of blockchain technology

Benefits for labels & publishers

- ▶ Lower barriers to entry allowing for better portfolio diversification
- ▶ Potential capital appreciation and investment opportunities with easier trading
- ▶ Streamlined royalty distribution and copyright management

Benefits for music streaming services

- ▶ Enhanced catalog access through easier partnerships and wider range of music options
- ▶ Innovative engagement with audiences through exclusive content tied to tokenized asset
- ▶ Streamlined licensing and royalty distribution, ensuring efficient payments

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: NFT music album auction

February 2022



In February 2022, 3LAU (read: BLAU) re-released his 2018 album as an NFT

The EDM artist has sold 33 NFT albums and managed to earn a profit of nearly \$11.6 million

Buyers can redeem their albums with various products, from 3LAU special edition vinyl albums, never-released songs, to several special experiences

Instead of choosing a marketplace to sell their music, like many other artists, 3LAU chose an auction. The auction was streamed live by the musician, whose real name is Justin Lau, on his personal Twitter account.

The 3LAU NFT auction was concluded at the end of February 2022. The event went live for 48 hours. It was held to commemorate 3 years after the first release of his Ultraviolet album.





Gaming

Applications of tokens in gaming are the issuance of in-game assets, rewards, or currencies into natively digital form on the blockchain. These digital tokens represent the ownership or rights to virtual items and can be traded, transferred, or managed with greater ease, security, and transparency. Game content creators can easily get rewarded

This use case is relevant for:



Gamers



Content Creators



Game
Publisher /
Developers

Benefits for gamers

- ▶ Enhanced ownership and control over in-game assets and virtual items
- ▶ Ability to trade/sell virtual assets, unlocking liquidity and earning real-world value
- ▶ Potential to earn rewards and incentives for in-game achievements or participation

Benefits for game publishers & developers

- ▶ New revenue model and monetization opportunities
- ▶ Enhanced player engagement and retention through token economies & marketplace
- ▶ Improved community building, allowing player to participate in development and evolution of the game ecosystem

Benefits for content creators

- ▶ Increase incentive for game content creators to engage in the project as new monetization opportunities like token sales, rewards or special interaction are available
- ▶ Increased engagement & connection with fans through unique experiences and content

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: Decentraland

February 2020

Decentraland is a 3D virtual world browser-based platform created in February 2020

Users may buy virtual plots of land in the platform as NFTs via the MANA cryptocurrency, which uses the Ethereum blockchain. Designers can create and sell clothes and accessories for the avatars to be used in the virtual world.



Decentraland

The first fully decentralized world, Decentraland is controlled via the DAO, which owns the most important smart contracts and assets of Decentraland. Via the DAO, you decide and vote on how the world works.





Corporate branding

Companies of different sizes may use NFTs as means for corporate or employer branding, creating digital experiences for their customers, partners or employees. Applications may include POAPs, awards, memorabilia or other forms of collectibles. Rather than focusing on commercialization, issuers usually focus on creating innovative touch points with users.

This use case is relevant for:



Enterprises

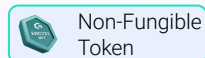
Benefits for enterprises

- ▶ Create new digital touch points with customers, partners and employees
- ▶ Gain first-hand experience with web3 and build experience within internal project teams
- ▶ Experiment with different technologies and prototype applications with lower entry barriers or financial risk compared to securities or industrial applications
- ▶ Brand recognition as web3-oriented organization
- ▶ Increased exposure and recognition through wider market reach

Benefits for token recipients

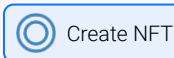
- ▶ Access to new digital experiences or exclusive content
- ▶ Low entry barrier to learn about web3 as NFTs are often free of charge and user experiences are designed to be particularly beginner-friendly

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: Siemens 175th anniversary NFT

October 2022

German technology conglomerate Siemens created a collection of 1,847 NFTs on the occasion of its 175th corporate anniversary. The NFTs pay homage to some of Siemens' most famous inventions throughout its long history

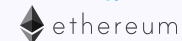
SIEMENS

The NFTs were awarded to guests of the celebration and related events. They further serve as an entry ticket for Siemens' Web3 Tech Space, where the company envisions future innovation based on blockchain technology and new forms of digital communication



NFT creation and lifecycle
via Token Tool

Technology stack



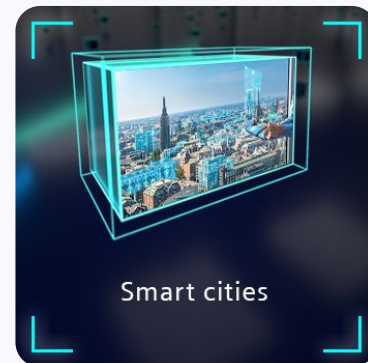
Smart contracts deployed
on Ethereum



Token contract ownership
and transaction approval








Digitization
of railways



Smart cities

Tokenization use case categories

1		Tokenization of financial assets	7
2		Digital twins of physical assets	14
3		Natively digital assets	19
4		Certifications	24
5		Other tokens	33



Entry Tickets

Entry ticket tokenization is the issuance of physical event tickets or entry passes into natively digital form on the blockchain. These digital tokens represent proof of ownership or access rights to attend a specific event, such as concerts, conferences, sporting events, or festivals.

This use case is relevant for:



Event Organisers



Attendees



Artists /
Performers

Benefits for event organisers

- ▶ Extend audience reach, mitigate ticket scraping and control access to ticket sales
- ▶ Earn secondary trading fees, provide security for buyers and prevent malicious reselling
- ▶ Offer additional value for fans via digital collectibles, access to exclusive content and web3 experiences

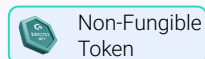
Benefits for attendees

- ▶ Increased convenience with digital tickets, enabling easy purchasing, transfer and access
- ▶ Enhanced security and protection against counterfeit tickets, trusted ticketing experience
- ▶ Flexibility to resell or transfer tickets on blockchain based platforms

Benefits for artists & performers

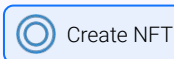
- ▶ Greater control over ticket distribution, pricing and access, fostering direct engagement
- ▶ Potential revenue generation from secondary sales, capturing additional value
- ▶ Improved fan engagement/loyalty with personalized experiences and direct interaction

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: EXIT festival NFT tickets

April 2023

Exit is a summer music festival held in Serbia, founded in the year 2000 and an attendance of 200,000 during their 2023 event



World's first major music event selling NFT tickets of this scale, with normal NFTs to ultra VIP NFTs priced at €10,000

NFTs were issued on the Ethereum blockchain

Benefits from NFTs include a personal host, meet-and-greet opportunities with performers, among other exclusive perks

This project by EXIT Festival has been nominated for the DISRUPTOR award at the Ticketing Business Awards. According to the project's supporters, cutting-edge ticketing options are required to "meet the demands" of today's festival-goers.





Proof of Participation

Proof of participation is the issuance of evidence or proof of an individual's participation or involvement in an event, activity, or program into natively digital form on the blockchain. These tokens represent a verifiable record of the individual's participation and can be used to validate their level of engagement, achievements, or contributions.

This use case is relevant for:



Event Organizers



Employers /
Human
Resources



Participants

Benefits for event organizers

- ▶ Enhanced attendance tracking and verification, providing a transparent and tamper-proof record of participants' engagement
- ▶ Improved data accuracy and efficiency in managing event participation records
- ▶ Potential for incentivizing and rewarding participants based on their level of involvement

Benefits for participants

- ▶ Portable and verifiable proof of involvement and achievements
- ▶ Increased credibility/recognition for active engagement in events/programs, & initiatives
- ▶ Potential for access to incentives, rewards, or opportunities based on participation

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: Christian Louboutin at the Eiffel Tower

September 2022



The Proof of Attendance Protocol turns precious moments into collectibles. Memories are tokenized by POAP using blockchain technology so they are really and permanently yours.

Making memories that endure a lifetime has a big impact on how people plan.

During the Loubi show day presentation women Spring-Summer 2023 Collection at the Eiffel tower, Louboutin created a series of collectibles via POAP.

The collectible shows that you attended the evening presentation of Christian Louboutin Women Spring Summer 2023 at the Eiffel tower

23 NFTs were minted and distributed during the evening





Diplomas & Certificates

Diploma tokenization is the issuance of diplomas, certificates, or other forms of educational credentials into natively digital form on the blockchain. These digital tokens represent the ownership or proof of an educational qualification and can be verified, shared, or managed with greater ease, security, and transparency.

This use case is relevant for:



Students



Schools /
Universities



Employers

Benefits for students

- ▶ Immutable and verifiable credentials
- ▶ Portable and easily shareable diplomas, simplifying the process of sharing qualifications with employers and educational institutions
- ▶ Increased trust and credibility in the authenticity and integrity of educational credentials

Benefits for schools and universities

- ▶ Efficient credential management, reducing administrative burdens associated with issuing and verifying paper-based diplomas
- ▶ Enhanced data security and privacy, ensuring sensitive student information protection

Benefits for employers

- ▶ Increased trust & confidence in the authenticity and accuracy of candidates' credentials
- ▶ Time and cost savings in the hiring process, eliminating the need for manual verification of paper-based diplomas

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: Diploma tokenization pilot in Germany

June 2021

Anyone applying for a degree program or after-school learning usually submits their application documents digitally. Certificates of completion must be certified and scanned manually, the result is often poor quality and not tamper-proof.

Ministerium für Wirtschaft,
Industrie, Klimaschutz und Energie
des Landes Nordrhein-Westfalen



This should change with the digital certificate: the German state government has launched the DIGIZ NRW field test and allows participating schools to provide certificates in digital form.

For this purpose, the data is stored electronically and encrypted by the Federal Printer with a digital signature so that it cannot be counterfeited. The procedure makes certificates machine-readable and is currently being tested.

Minister of Digital Prof. Dr. Andreas Pinkwart: *"With blockchain technology, we make digital certificates tamper-proof, simplify the application process and bring innovations to people's daily lives. This service meets the needs of students as well as future employers."*





Web Domains

Web domains tokenization is the issuance of traditional web domains into natively digital form on the blockchain. These digital tokens represent the ownership or rights to the domain and can be traded, transferred, or redeemed with greater ease, security, and transparency than traditional web domains.

This use case is relevant for:



Domain Owners /
Buyers



Domain
Marketplaces &
Platforms



DNS &
Service
Providers

Benefits for domain owners and buyers

- ▶ Increased liquidity by tokenizing and trading domain assets, unlocking their value.
- ▶ Access to a broader range of domain assets, incl. premium domains & high-value options
- ▶ Enhanced ownership control and flexibility through fractional ownership

Benefits for domain marketplaces & platforms

- ▶ Expanded market opportunities by offering a platform for secure and transparent trading
- ▶ Facilitated domain transactions through streamlined processes for buying, selling, and managing domain tokens

Benefits for DNS & service providers

- ▶ New business opportunities by providing specialized services for managing domain tokens, facilitating transfers, or offering decentralized DNS solutions
- ▶ Enhanced efficiency in domain management through automation and integration with tokenized domain systems

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: Smart domains tokenized on Hedera

September 2022



WEB3

Web3 is a secure DNS platform that allows you to register and tokenize domain names on Hedera Hashgraph. Web3 call those domains Smart Domains.

Web3 offer a regular Web2 domain service where you can search and purchase a domain name for your website; as well as a Web3 Smart Domains service where you can mint and map functionality to your NFT domain addresses using standard web browsers.

Web3 have envisioned a DNS based solution for Web2 which leverages the way the present internet works and allows it to function with Web3; opening up access to millions of new users and demonstrating the benefits of tokenization to the mass market.





Proof of Maintenance

Concept that refers to the practice of issuing digital tokens as a form of reward or verification for the completion of maintenance tasks or services. This concept is especially relevant in contexts such as industrial maintenance, infrastructure management, or software updates, where maintaining the operational integrity of systems is crucial.

This use case is relevant for:



Asset Owner /
Buyers



Maintenance
Service Providers



Insurance
Companies /
Authorities

Benefits for asset owner & buyers

- ▶ Enhanced asset value & compliance through transparent & verifiable maintenance record
- ▶ Increased confidence in asset condition & quality, supporting informed decision-making
- ▶ Improved asset safety and reliability through adherence to proper maintenance practices

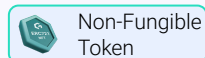
Benefits for maintenance service providers

- ▶ Enhanced reputation & trust by showcasing track record of reliable maintenance act.
- ▶ New revenue streams & expanded client base through increased market trust
- ▶ Streamlined documentation & compliance by leveraging tokenized maintenance records

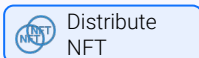
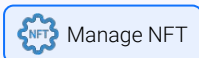
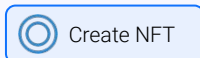
Benefits for insurance companies & authorities

- ▶ More accurate risk assessment through verifiable maintenance records
- ▶ Potential for improved coverage terms and reduced Premiums based on demonstrated maintenance compliance
- ▶ Enhanced claims handling efficiency with streamlined verification of maintenance history

Token standard



Token Tool features



Case Study: Alfa Romeo SUV blockchain connectivity

August 2022



Alfa Romeo's new subcompact Tonale SUV includes an NFT and blockchain technology

Alfa Romeo said the NFT will record vehicle data, generating a certificate that can be used to assure the car has been properly maintained, with a positive impact on its residual value

In order for the NFT to be updated and for the data to be stored, the car must be serviced by a certified Alfa Romeo dealer

"Digitalization is a key enabler of our metamorphosis. Tonale is the first car ever to keep a blockchain, non-fungible token. NFTs are based on the same distributed information logic that protects your Bitcoin" Francesco Calcara





Vouchers

Voucher tokenization is the issuance of traditional vouchers or coupons into natively digital form on the blockchain. These digital tokens represent the ownership or rights to certain benefits or discounts, and can be traded, transferred, or redeemed with greater ease, security, and transparency than traditional paper-based or digital vouchers.

This use case is relevant for:



Businesses /
Merchants



Customers /
Voucher Holders



Resellers /
Distributors

Benefits for businesses & merchants

- ▶ Secure and efficient voucher system, reducing administrative burden and enhancing customer satisfaction
- ▶ Cost savings through streamlined voucher processes (issuance, tracking, redemption)
- ▶ Enhanced customer engagement through convenient and personalized experiences

Benefits for customers & voucher holders

- ▶ Convenient voucher management in digital wallets or platforms
- ▶ Enhanced security and protection against physical voucher loss or theft
- ▶ Improved user experience with simplified redemption

Benefits for resellers & distributors

- ▶ Simplified voucher trading and transfer through blockchain-based marketplaces
- ▶ Increased market reach with a wider range of tokenized vouchers
- ▶ Potential for new revenue streams through voucher resale

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: 5 minutes of fame NFT from My First Million Podcast

September 2021

Sam Parr and Shaan Puri run the “My First Million” podcast where they brainstorm new business ideas based on trends & opportunities they see in the market. Sometimes they bring on famous guests and brainstorm with them.

As an effort to engage further with their audience they created an NFT. The NFT gives the holder the rights to 5 minutes of airtime on the My First Million podcast to discuss any topic of interest.

Now the NFTs do not have to be redeemed straight away, Shaan Puri said: *“You can buy today and hold it for years, and it will age like fine wine. That “airtime” should (in theory) get more valuable over time as we grow.”*



500k+ listeners every week



Loyalty Points

Loyalty points tokenization is the issuance of traditional loyalty points or rewards into natively digital form on the blockchain. These digital tokens represent the ownership or rights to certain rewards or benefits. They can be traded, transferred, or redeemed with greater ease, security, and transparency than traditional loyalty points.

This use case is relevant for:



Businesses /
Merchants /
Customers



Loyalty Program
Operators



Partnerships
/ Alliances

Benefits for businesses, merchants & customers

- ▶ Convenient and flexible loyalty management with seamless tracking and redemption
- ▶ Enhanced customer engagement and retention through unified and interoperable loyalty experiences
- ▶ Streamlined Integration with partner programs, expanding reward options

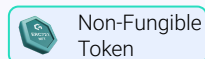
Benefits for loyalty program operators

- ▶ Reduced operational complexities and costs with tokenized loyalty points
- ▶ Improved data accuracy and insights into customer behavior
- ▶ Enhanced program administration and flexibility

Benefits for partnerships & alliances

- ▶ Seamless transfer and exchange of loyalty points among businesses, expanding rewards
- ▶ Increased customer reach through collaboration and shared benefits
- ▶ Strengthened customer loyalty through combined incentives

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: KrisFlyer Launches Innovative Miles-Based Digital Wallet, KrisPay

July 2018 – now called Kris+

Singapore Airlines launched KrisPay, the world's first blockchain-based airline loyalty digital wallet. The miles-based digital wallet enables members to convert KrisFlyer miles into KrisPay miles instantly for everyday spending at partner merchants island-wide.



For a start, KrisPay miles will be accepted at 18 merchants spanning different categories of beauty services, food and beverage, petrol and retail. Selected partners will offer discounts during the launch period.

More merchants will be progressively added to the platform, and members can expect frequent in-app promotions and more app features to be delivered in the coming months

"We are excited to be introducing KrisPay, a novel way for our KrisFlyer members to digitally access their miles at their fingertips, at any time. By creating a miles-based digital wallet which integrates the use of miles into their daily lives, KrisFlyer members have yet another way to use miles instantly on everyday transactions" said Singapore Airlines CEO, Mr Goh Choon Phong.





Awards

Award tokenization is the creation and presentation of awards, rewards, or recognition in natively digital form on the blockchain, representing their value or achievement. These tokens can be stored, transferred, and redeemed on a decentralized network, improving award management and accessibility.

This use case is relevant for:



Individuals /
Participants



Reward Program
Operators



Businesses /
Merchants

Benefits for individuals & participants

- ▶ Convenient reward management, with seamless tracking and redemption
- ▶ Flexibility in reward usage, allowing easy access and utilization across platforms
- ▶ Enhanced reward experience through personalized offerings and unified redemption

Benefits for reward program operators

- ▶ Streamlined program management, with simplified issuance, tracking, and reporting of tokenized rewards
- ▶ Improved efficiency through real-time monitoring and accurate analytics
- ▶ Enhanced engagement and loyalty through innovative and secure reward systems

Benefits for businesses & merchants

- ▶ Increased engagement/retention, with innovative web3 offering, driving repeat purchases
- ▶ Cost savings and efficiency gains by leveraging streamlined reward processes
- ▶ Access to valuable insights through data from tokenized reward systems

Token standard



Non-Fungible
Token

Token Tool features



Create NFT



Manage NFT



Distribute
NFT

Case Study: INATBA award hours blockchain excellence with NFT awards

January 2023

INATBA offers public and private developers and users of DLT a global forum to interact with regulators



INATBA
International Association
for Trusted Blockchain Applications

During their INATBA Awards Gala taking place on Jan 31, 2023, they honoured the Top Contributors, Special Awards recipients, and Most Exciting Projects of 2023

The awards presented as NFTs offer a secure and unique way of recognising and celebrating achievements, and adding a new level of prestige to the awards

Technology stack



NFT creation and lifecycle
via Token Tool



ethereum

Smart contracts deployed
on Ethereum








METAMASK

Token contract ownership
and transaction approval



Tokenization use case categories

1		Tokenization of financial assets	7
2		Digital twins of physical assets	14
3		Natively digital assets	19
4		Certifications	24
5		Other tokens	33

Utility Tokens

Utility tokens are a type of digital token associated with a specific blockchain based project or platform. These tokens can be used within the platform's ecosystem to access certain services or perform specific functions. One defining characteristic of utility tokens is that they are not designed as investment products.

This use case is relevant for:



Businesses /
Service
providers



Users /
Consumers /
Investors



Blockchain
Platforms /
Developers

Benefits for businesses & service providers

- ▶ Innovative monetization model, incentivizing user engagement
- ▶ Enhanced customer loyalty through utility token rewards and access
- ▶ Increased platform growth by leveraging utility tokens for ecosystem participation

Benefits for users, consumers & investors

- ▶ Access to specific products/services using utility tokens
- ▶ Potential value appreciation and early access through utility token investments
- ▶ Enhanced user experiences with utility token benefits such as discounts, rewards etc.

Benefits for blockchain platforms & developers

- ▶ Incentivized community participation through utility tokens
- ▶ Bootstrap network effects with utility token rewards for early adopters
- ▶ Funding opportunities through token sales for project development and ecosystem expansion

Token standard



Fungible
Token



Create Token



Manage
Token



Distribute
Token



Create Token
Locker

Token Tool features

Case Study: Limewire token

January 2023

LimeWire is a platform for content creators, artists and brands to create membership-based communities

Fans receive access to exclusive content and the ability to directly communicate with artists

The LimeWire Token (LMWR) enables its holders to make purchases on the platform, earn staking, activity and royalty rewards and execute voting rights



ERC-20 token created with
Token Tool



Smart contracts deployed
on Ethereum



Token contract ownership
and transaction approval



Search creators and posts...

Product

Pricing

Buy LMWR

Log in

Sign up

Join thousands of creators on LimeWire

More and more artists are using LimeWire to take control of their audience and build dedicated communities.



Governance Tokens

Governance tokens are a type of digital asset that provide the holder with the right to participate in the governance of a decentralized network or protocol. Holders of governance tokens have the ability to influence the development and operation of a protocol by proposing, discussing, and voting on various aspects.

This use case is relevant for:



DAOs



Token Holders /
Investors



Developers /
Innovators

Benefits for DAOs

- ▶ Decentralized decision-making, enhancing transparency and community engagement
- ▶ Efficient governance, enabling swift voting on upgrades and policy changes
- ▶ Resilience and adaptability, facilitating response to ecosystem needs

Benefits for token holders & investors

- ▶ Active participation in governance, shaping the project's future
- ▶ Potential financial returns from successful governance decisions
- ▶ Alignment of interests through incentivized long-term engagement and commitment to the project's success

Benefits for developers & innovators

- ▶ Empowered role in governance, proposing and implementing protocol changes
- ▶ Open development process, fostering community contributions and innovation
- ▶ Recognition and reputation building through impactful governance contributions

Token standard



Fungible
Token

Token Tool features



Create Token



Manage
Token



Distribute
Token



Create Token
Locker

Case Study: SAFE DAO token

August 2022

Safe is a trusted decentralized custody protocol and collective asset management platform on Ethereum and the EVM

The firm airdropped 50 million tokens in a bid to decentralize the community

The token ensures that Safe can be operated and maintained by the community. The structure of the DAO enables as well a way to decentralized focus so that Safe can be expanded for many use case



Technology stack

In-house development

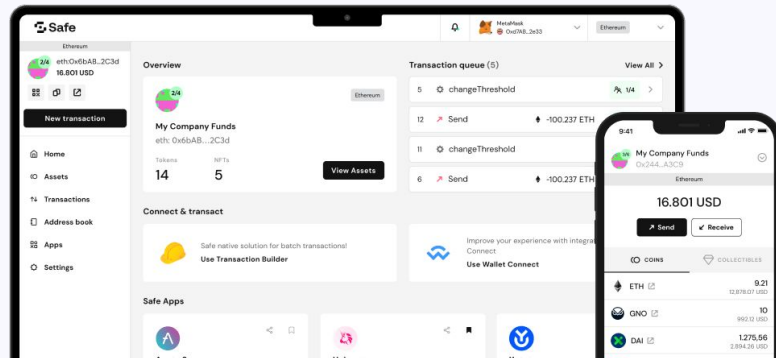
ERC-20 token creation and
lifecycle management



Smart contracts deployed
on Ethereum



Token contract ownership
and transaction approval



Your contact



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Bitbond is a trusted member of these industry organizations

bankenverband

bitkom

KAPITALMARKT
PARTNER

Primärmarkt
Börse Düsseldorf

MEMBER OF
DEUTSCHE BÖRSE
VENTURE NETWORK

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