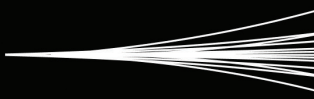
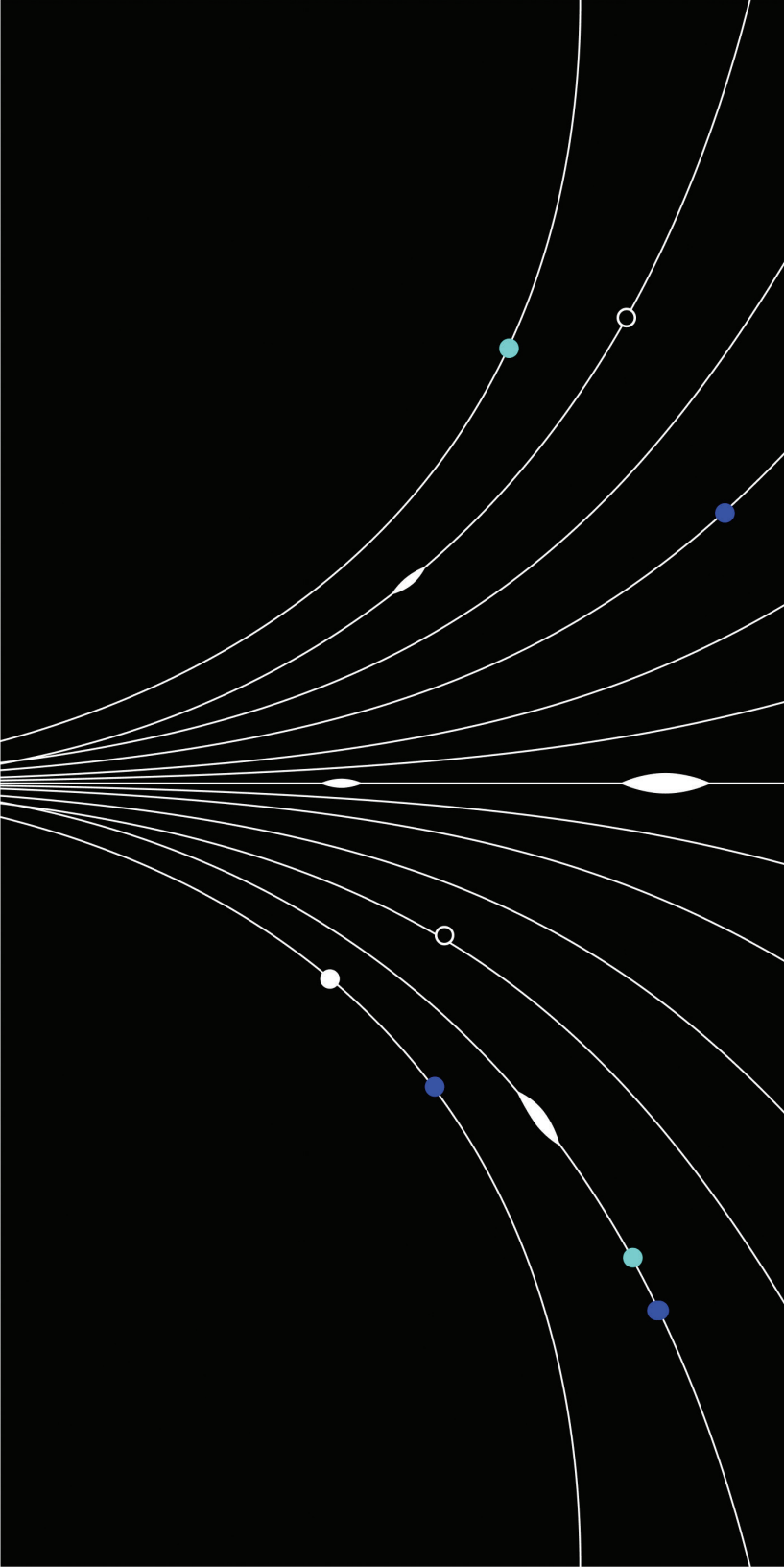

IOTA
Empowering Finance with
Real World Asset Tokenization

/Tokenize Everything



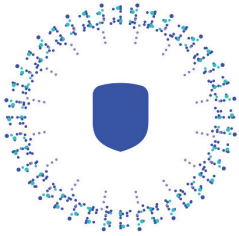


Technology as enabler

Most value in our global society is analogue and thereby largely inaccessible, inefficiently transferred and illiquid. Efforts to digitize it have been plentiful, but have been largely unsuccessful.

Distributed Ledger Technology (DLT) offers a secure method of digitising value by tokenizing analogue assets. This involves creating digital twins of analogue originals. But until recently a crucial element was missing: digital identity.

Only the fusion of tokenized assets and digital identities can reshape the game, ensuring digital security through the validation of authenticity, breathing life into dormant assets, and bringing unprecedented economic possibilities.



Security

Tokenization of Real World Assets (RWA) = Securitization of dormant assets



Trust

Digital Self Sovereign Identities (SSI) = Verifiable authenticity

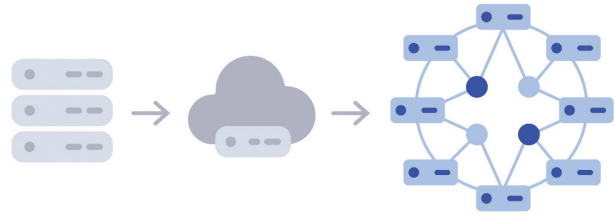
/The road ahead:

From cloud-based to self sovereign decentralized data and asset management

In the search for increased flexibility, efficiency and reduced costs, businesses have shifted from on-premise to colocation and then to the Cloud.

However, compatibility issues, access management, and data interoperability remain significant cost drivers. Also, cloud-based vendor and platform lock-ins hinder agility and inflate overhead costs.

The transition from cloud-based to decentralized infrastructure promises enhanced compatibility, reduced access management costs, improved security, and confidentiality maintenance.



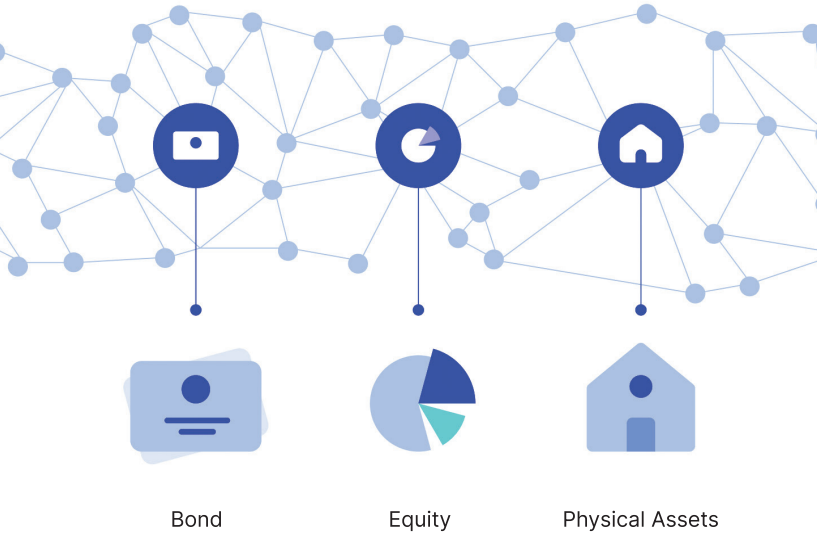
on-premise cloud-based decentralized

Tokenization of real-world assets in a nutshell

Digital tokens are effectively data. But while data can be copied, tokens secured by Distributed Ledger Technology are immutable and cannot be copied.

Tokens can carry additional features - such as unique identifiers, metadata and access rights. They can represent financial assets like bonds, securities or equity, as well as physical assets such as machines, devices, materials, or any physical “thing”.

The IOTA Tokenization Framework offers these features and many more, and comes at zero marginal costs: minting tokens and transferring them is feeless for token holders. As such, it enables business cases based on tokenized assets even for low-value assets.





Digital Identity & Verifiable Credentials in a nutshell

In the context of tokenized assets, digital identity solutions enable the identity of assets and its owner(s) to be verified. A digital identity, once established by anyone and linked to a real-world entity, inherits its trustworthiness. Consequently, any asset tokenized by this entity can be universally verified as authentic.

Verifiable credentials encompass attributes of digital identities, allowing for selective disclosure and validation without revealing all properties of the attributes. This method enables sensitive trade information to be verified without exposing extraneous details. For instance, confirming that a company is officially registered in Abu Dhabi does not require disclosing the company's postal address to the verifying agent.

/Use cases

Tokenization of Real World Assets

Abu Dhabi's forward-thinking spirit, exemplified by the Abu Dhabi Global Market (ADGM), offers a supportive foundation to explore the full potential of real-world asset tokenization including the tokenization of financial instruments.

Within the ADGM, IOTA is poised to revolutionize the global financial landscape, making Abu Dhabi a global hub for asset tokenization, driving innovation and fostering economic growth in the region and beyond.

As a first step, we are working on real estate bond tokenization, trade finance tokenization through invoice financing and the tokenization of regulated fund structures.



/Use cases

Trade Digitization

Through the Trade and Logistics Information Pipeline (TLIP), we are developing paperless trade through a trusted infrastructure that enables secure and efficient cross-border collaboration between multiple parties.

Based on the public goods infrastructure of the IOTA network, TLIP allows all actors to share data and documents in a secure and verifiable way. Used by both border agencies and commercial actors, each party has full control of its own data, and all data is available directly from the source.

Following the successful digitization of already established trade corridors, we will begin to tokenize invoices and move on to digitizing trade finance. Find out more: https://TLIP.io

Tokenization metrics:

80%	Cut in trade transaction cost
50%	Reduction in the trade finance gap
35%	Increase in SME efficiency
$9	Trillion in trade growth across the G7

Cross-border processing times cut from **25 days** to **1 day**

Entities engaged in TLIP are:

GLOBAL ALLIANCE FOR TRADE FACILITATION

IOTA FOUNDATION

INSTITUTE OF EXPORT & INTERNATIONAL TRADE

TONY BLAIR INSTITUTE FOR GLOBAL CHANGE

TRADE MARK AFRICA

WORLD ECONOMIC FORUM

/Use cases

Tokenized KYC

In the realm of cross-border trade and logistics facilitated through IOTA's immutable DLT, the integration of corporate identities with TradeID ensures transparent and secure transactions, fostering trust among participating entities while streamlining the exchange of goods and services across borders. The upcoming release of our on-chain know your customer (KYC) solution will allow actors to verify on-chain addresses bound to real-world individuals and entities at marginal cost. Following the successful implementation of basic identity management solutions, we will begin to implement trust scores and selective verifiable credentials, allowing identity-based information to be selectively disclosed on a need-to-know basis.

Identity metrics:

$24.2 billion:	Value received by known illicit cryptocurrency addresses (Chainalysis 2024)
100%	All crypto transactions involving a CASP must be accompanied with information about the sender and receiver (EU Transfer of Funds Regulation)

Partners:

IDnow. Bloom walt.id

SPYCE.5 swapline

IOTA Frameworks

IOTA Tokenization Framework

Tokenize any asset and make it fully programmable according to strict legal and compliance requirements. Tokenized assets are fully secure and can be seamlessly transferred.

IOTA Identity Framework

A W3C-conforming framework encapsulating the most common standards and patterns for Decentralized Identifiers (DID) and Verifiable Credentials (VCs). It supports identities for humans, organizations, things, and objects, acting as a unifying layer of trust between everyone and everything.

IOTA Chains Framework

Allows anyone to deploy and anchor their own, highly customizable EVM-based Layer 2 smart contract chains to the IOTA base layer (L1), allowing millions of transactions per second with selective permissioning and access management

IOTA Layer 1 Smart Contract Framework (under development)

Layer 1 programmability in the IOTA protocol will provide the basis for new possibilities of creating applications and utility on a single, highly scalable and composable base layer, able to secure, bridge and seamlessly interact with scalable L2 networks anchored to it.

Partners

The Trade and Logistics Information Pipeline (TLIP) is a digital, collaborative infrastructure for global trade that enables data to be transmitted directly from its source without third-party involvement and shared seamlessly, securely, and at a low cost. TLIP leverages the inherent qualities of IOTA — transparency, traceability, and immutability — to make digital versions of key trade documents available to destination customs, traders, and banks, embedding trust and integrity in data sharing.

TradeTech Global Initiative

The TradeTech Global Initiative, a collaboration between the UAE and the World Economic Forum, aims to revolutionize global trade by integrating technologies such as AI and IoT. It features the annual TradeTech Forum, a sandbox for testing innovations, an incubator for startups, and detailed annual reports. This strategic three-year project aims to enhance trade efficiency and equity, fostering innovation and inclusivity within the international trading ecosystem.

Realize

Realize is launching a real world asset (“RWA”) tokenization platform to empower the potential of RWAs on blockchain. Establishing in Abu Dhabi with regional connections and institutional partnerships, Realize strives to lead RWA tokenization in the Middle East, prioritizing trust and growth within a projected RWA market size of $16 trillion USD (exc stables) by 2030 (source World Economic Forum - Global Agenda Council). Realize will unlock the blockchain potential of RWAs by providing investors greater liquidity, transparency and additional yield earning opportunities not available within traditional finance rails.

tokeny

Tokeny provides a compliance infrastructure for digital assets. It allows financial actors operating in private markets to compliantly and seamlessly issue, transfer, and distrbute securities using distributed ledger technology. By applying trust, compliance, and control on a hyper-efficient infrastructure, Tokeny enables market participants to unlock significant advancements in the management and liquidity of financial instruments.

The larger IOTA Ecosystem

TLIP

IOTA FOUNDATION

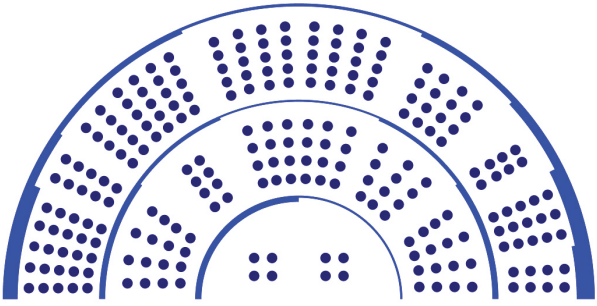
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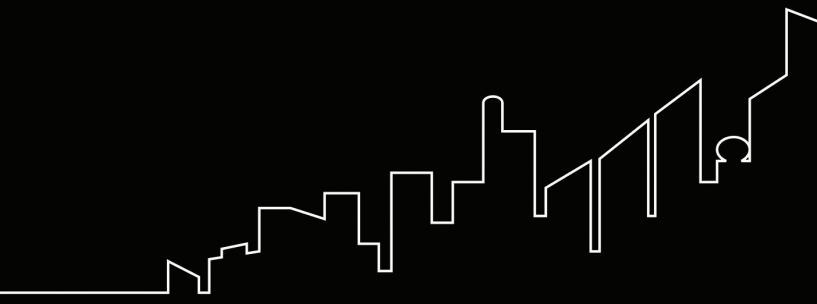
IOTA



Abu Dhabi

Establishing the **IOTA Ecosystem DLT Foundation** under the **DLT Foundations Regulations of Abu Dhabi Global Market (ADGM)**, marked a significant milestone in placing **IOTA** at the forefront of the financial sector's evolution in the **MENA region** and beyond. **ADGM's progressive regulatory framework** provides an ideal environment for collaboration, enabling us to bridge the gap between traditional and **digital finance** seamlessly.

Our substantial initial investment of over **$100 million in IOTA tokens** will foster the growth of the **IOTA ecosystem** and accelerate the adoption of the **IOTA protocol** in the region, driving **Abu Dhabi** towards becoming the center of **asset tokenization**.







/Tokenize Everything

Get in Touch

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www.iota.org