Jan 2021

ATLAS

Aggregated Trade, Logistics and Supply Chain Data

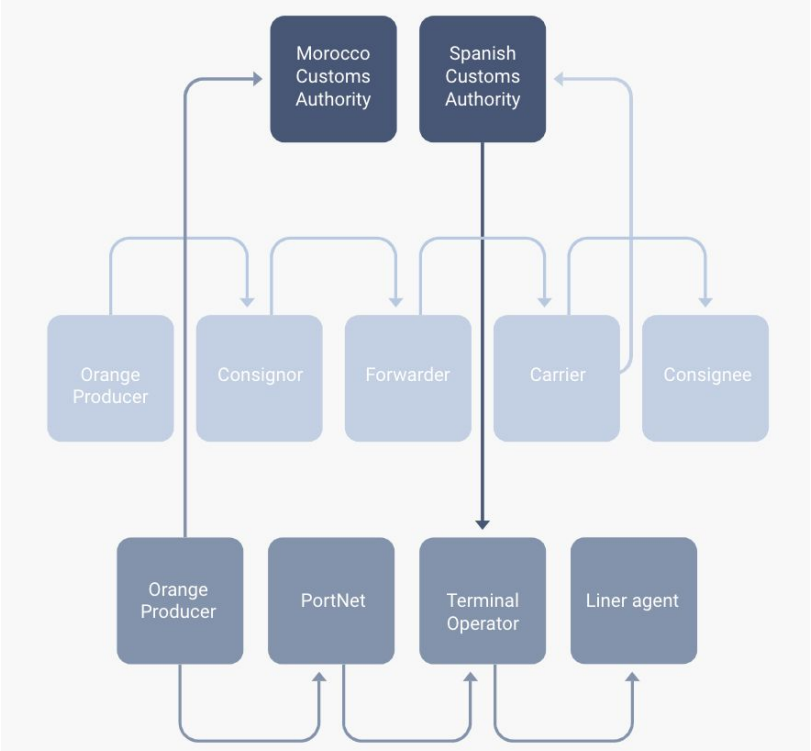
https://atlas.tlip.io

The Problem

Verified, secure and shareable certificates, stand at the core of successful international trade.

However, **paper-based legacy systems** today are

- Slow
- Error & counterfeit prone
- Inefficient
- Expensive
- Based on re-keying info into siloed systems



Must Have Requirements for Our Solution

Enable cost/time saving

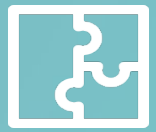
Increased quality and competitiveness in the market & reduced costs of failures and lost data

Secure & verifiable certificates

Build on standards for interoperability and security

Cost efficient deployment

Low investment, low running costs & inclusive



Accommodate current infrastructure & IT systems

A digital solution should be able to communicate effectively with all systems

Decentralised data management

Data from source, confidentiality & permissioned access

The COO user journey in ATLAS

Actor: Moroccan Exporter
Event: Request COO
Action: Upload required documents
Data: DUM, Commercial Invoice, and Packing list

Actor: Domestic Customs Authority
Event: Issue COO
Action: Verify request, review supporting documents & issue COO
Data: DUM, Commercial Invoice, packing list

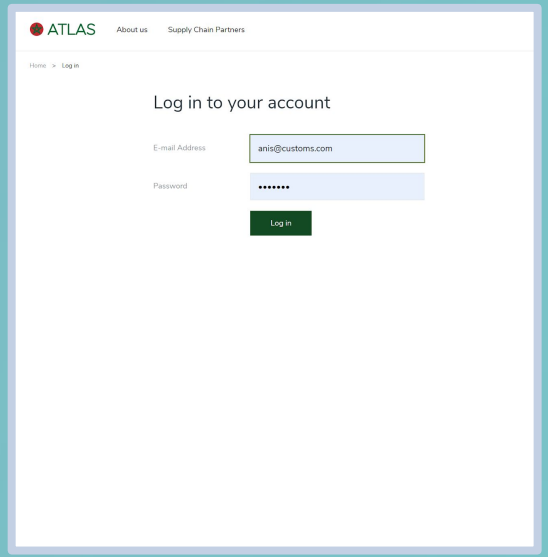
Actor: Moroccan Exporter
Event: Share access to COO
Action: ATLAS shares access with destination customs authority
Data: COO

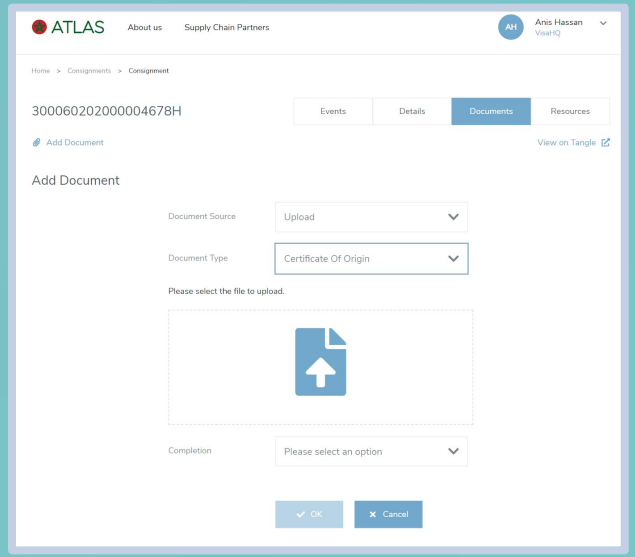
Actor: Destination Customs Authority
Event: Validate COO
Action: Verify data on ATLAS
Data: COO

See the journey on our Demo

THESE ARE SCREEN COPIES OF THE DEMO

ACCESS IT HERE:
atlas.tlip.io

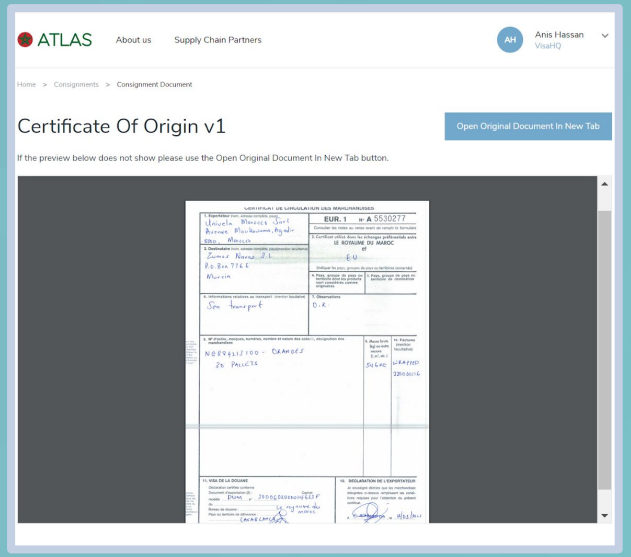


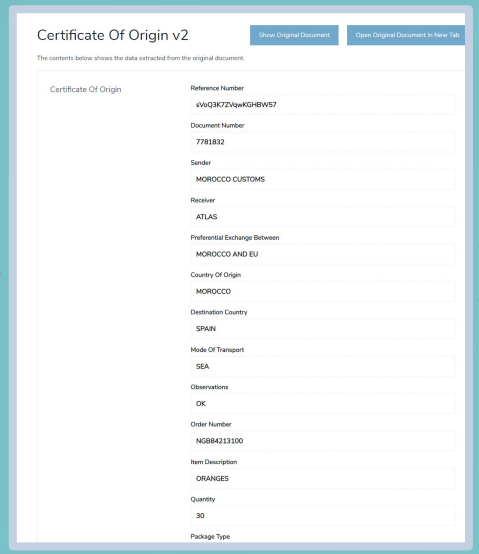


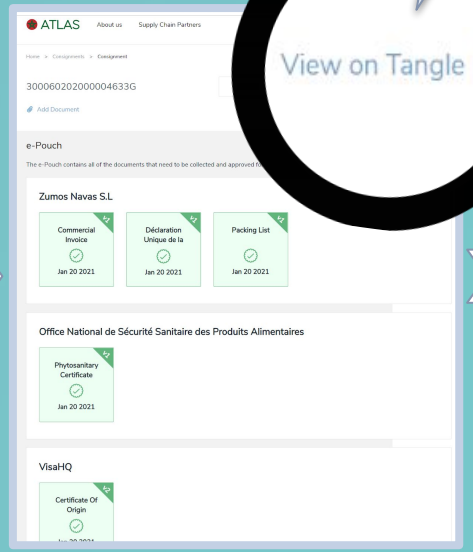
Login-page: each actor has own login credentials (trader, customs, port, importer etc.)

Upload certificate: To secure and make documents verifiable and shareable. All formats can be used: doc, pdf, XML, etc, (if using a tablet there is even an option to just take a pic of the certificate)

See the journey on our Demo





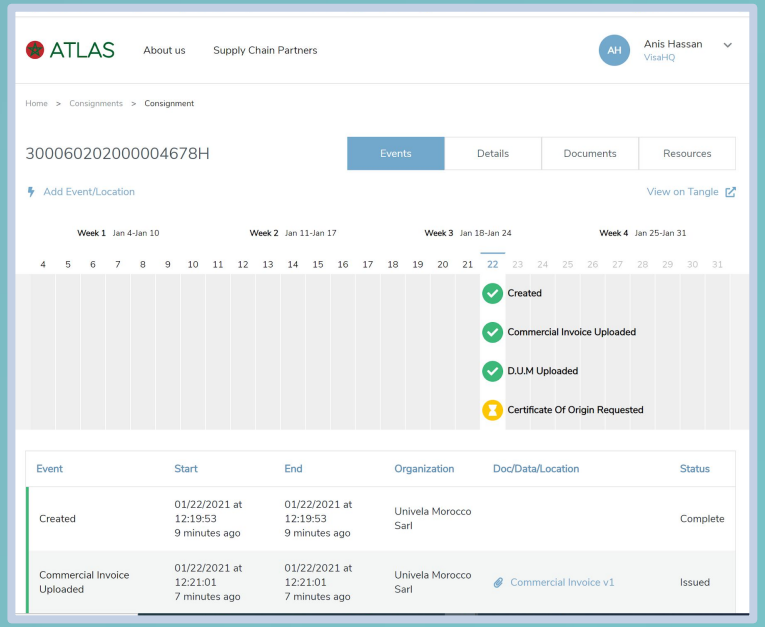


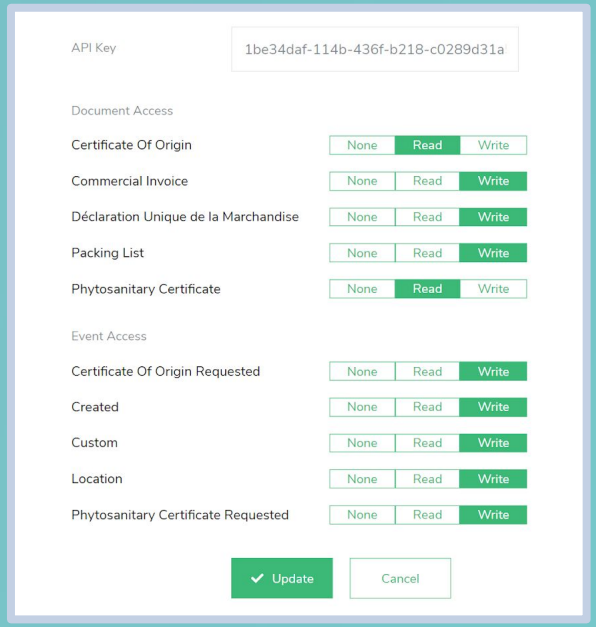
Secure: The certificate is now secure. This is showing frontend access. The certificate has been hashed on the blockchain and made shareable using principle of “verifiable credentials”.

Towards data paradigm: Same certificate presented as *data*. Enabling re-use of data and selective data disclosure towards other stakeholders.

All information: The DUM, packing list, commercial invoice etc. can also use this infrastructure to make exchange secure and verifiable!

See the journey on our Demo





Single-version-of-truth: All actors (with permission rights) have access to the full process and selected data. They always know where the goods are, who has custody, what the latest status is etc.

Permissions: The underlying infrastructure is based on decentralized principle. Each actor has full control over her own data and permissions for who can access it

ATLAS' value lies in its technical architecture

Upgrades legacy IT systems	Keeps data on local servers	Fast, secure and international	Not controlled by a central authority
ATLAS plugs into existing IT infrastructure, acting as a secure layer for sharing data between ecosystems. This reduces deployment time and doesn't require breaking changes in current systems.	ATLAS only stores an immutable, encrypted reference to data that is kept on local servers. Sharing the reference proves the validity and existence of trade certification while securing data at the source.	ATLAS uses the international W3C standards of verifiable credentials and DID for interoperability. The underlying protocol, the Tangle, ensures that these standards are implemented in a fast, secure and energy efficient manner.	ATLAS is based on the Tangle, a blockchain or distributed ledger technology. This ensures that data shared through ATLAS is not controlled or owned by any central authority or private company.

Verifiable Credentials in Action

```
  "@context": [
        "https://www.w3.org/2018/credentials/v1",
        "https://schema.org",
        "https://w3id.org/atlas/coo/v1"
    ],

    "id": "https://id.douane.gov.ma/credential/coo/wzk24v3Go1dDMabh",

    "type": ["VerifiableCredential", "CertificateOfOrigin"],

    "issuer": "did:iota:gov:ma:douane:7LnJCtcxGtRPAXz125xv7RGLcOPLkHRS",

    "holder": {
        "id":
did:iota:com:exporter:ma:BxxW4q37dlN6ZqUKIFr9MRxAVNIK7Mqf",
        "type": "Organization"
    },

    "credentialStatus": {
        "type": "CertificateOfOriginStatus",
        "id": "https://w3id.org/atlas/coo/v1#validStatus"
    },
    "issuanceDate":    "2021-01-12T12:00:00Z",
    "expirationDate": "2021-01-19T12:00:00Z",
```

The COO ID as a shareable link

This is a COO

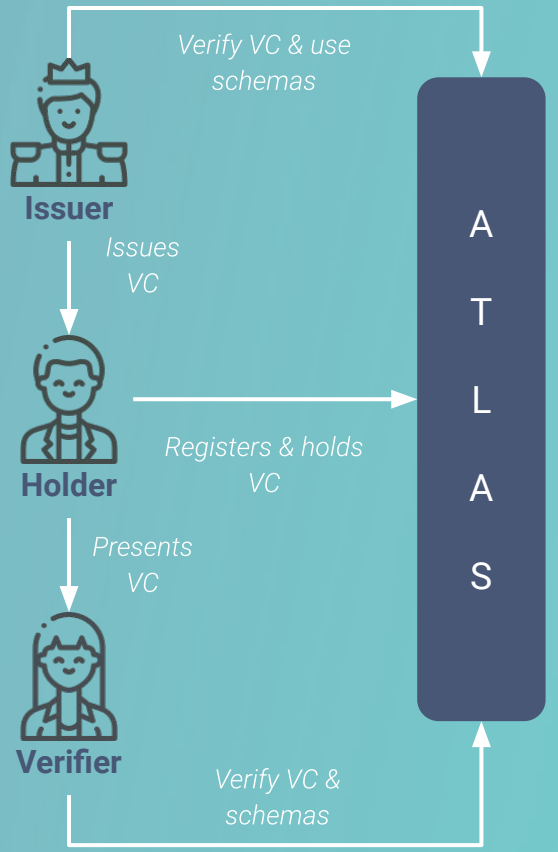
The Issuer DID

The Holder DID

The COO status

Valid from - to

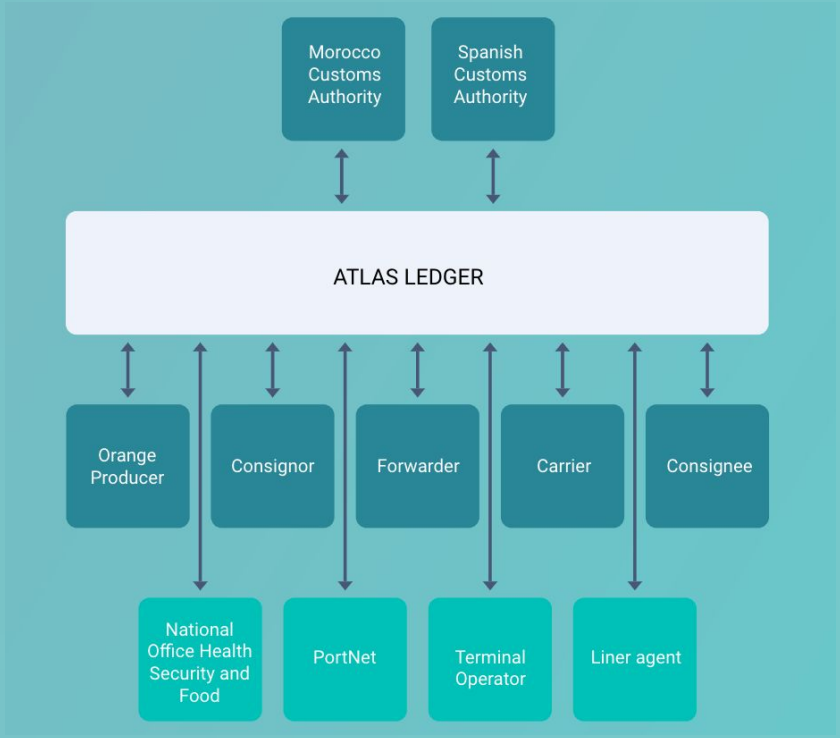
The Concept behind the Code



Benefits of sharing the COO through ATLAS

We digitize & secure the Certificate of Origin using the principle of verifiable credentials, anchored on a blockchain.

- **Verified** using digital signatures
- **Immutable** through hashing
- **Secure** in a decentralized, distributed ledger
- **Access controlled** through encryption based permissions & decentralized infrastructure
- **Modular** data handling for selective disclosure



Value Propositions for different Stakeholders

Traders

- Faster document handling, less errors and quicker amendments
- Real time process visibility, enhance track & trace capabilities with 3rd party input
- Ease of regulatory compliance
- Increased competitiveness on global markets

Ports & Logistics

- Easier document handling
- Lower terminal transit time
- Increasing productivity to drive up margins
- Mitigate bribery & corruption
- Cargo (process & planning) visibility
- Support internal digitization efforts

Authorities

Public infrastructure & no vendor lock-in

Customs/Border Agencies

- Easier document handling
- Cheaper imports - more exports
- Mitigate bribery & corruption

Tax

- Ensure rightful payment

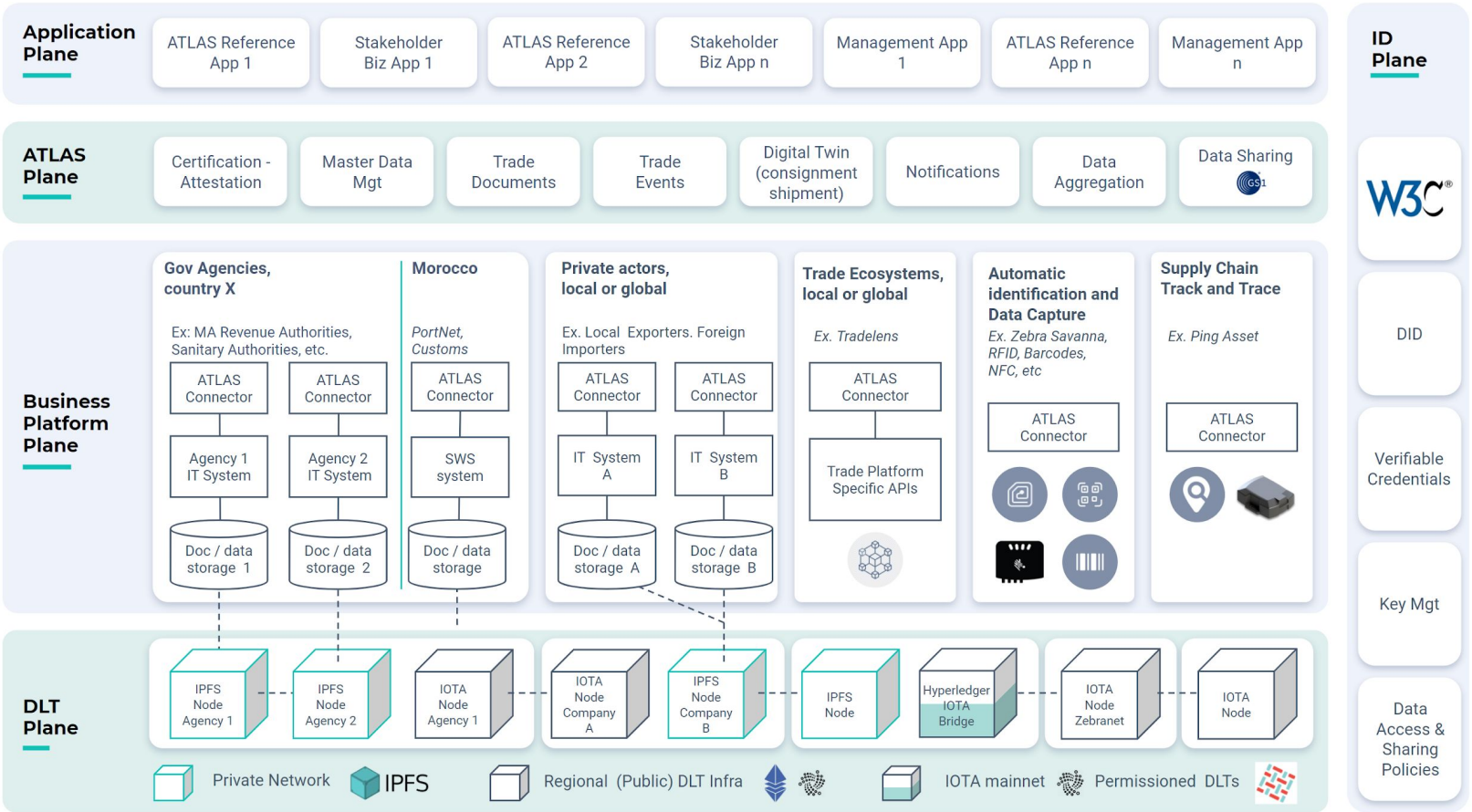
Security

- Improve security processes and forefront planning

Our Vision for Morocco

Enhance the international competitiveness of Moroccan traders by having ATLAS to cover the end-to-end trade-data journey to save time, cost, errors and lost documents.

Architecture for building the vision



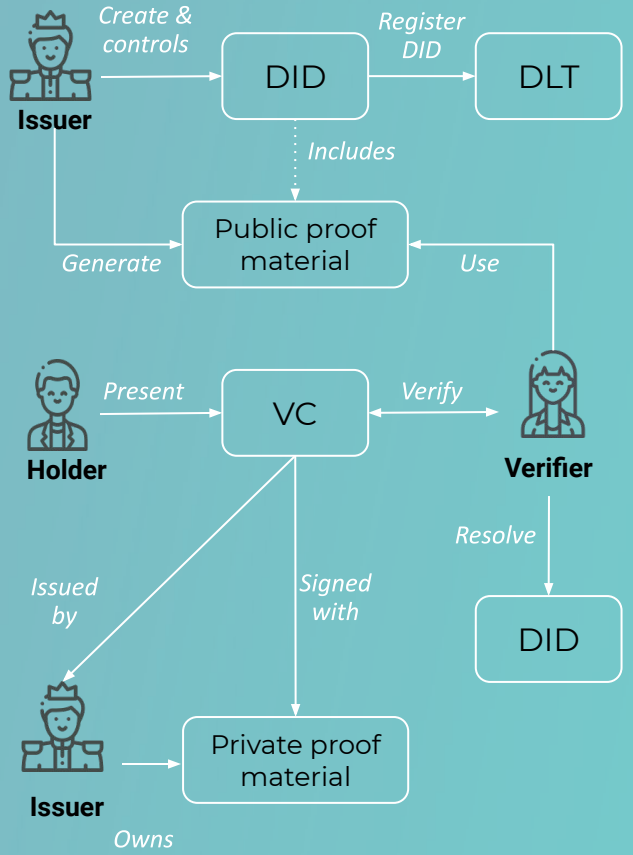
Digital Identity in Trade can realize the vision

DID is a new type of identifier

- *decentralized* i.e. no central issuing agency
- *persistent* i.e. not requiring the continued operation of an underlying organization
- *cryptographically verifiable* i.e. there is a machine-verifiable mechanism to proof control
- *resolvable* i.e. metadata can be discovered

DIDs enable actors to

- simplified registration processes
- play different and decoupled roles at different times (*holder*, *issuer*, *verifier*)
- evaluate whether a certificate is authentic or not without direct interaction with the issuer or any centralized or foreign authority
- Use it in different jurisdictions



Morocco Roadmap

Engage in international collaboration: standards, policy & regulation, interoperability, governance

Learn more ...

Check the ATLAS website: https://atlas.tlip.io/ to learn about:

- **Try the *demo***
- **Understand *Verifiable Credentials***
- **Role of *Digital Identities in International Trade & Morocco***
- **The *Solution Architecture***

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