

Jan 2021

ATLAS

Aggregated Trade, Logistics and
Supply Chain Data

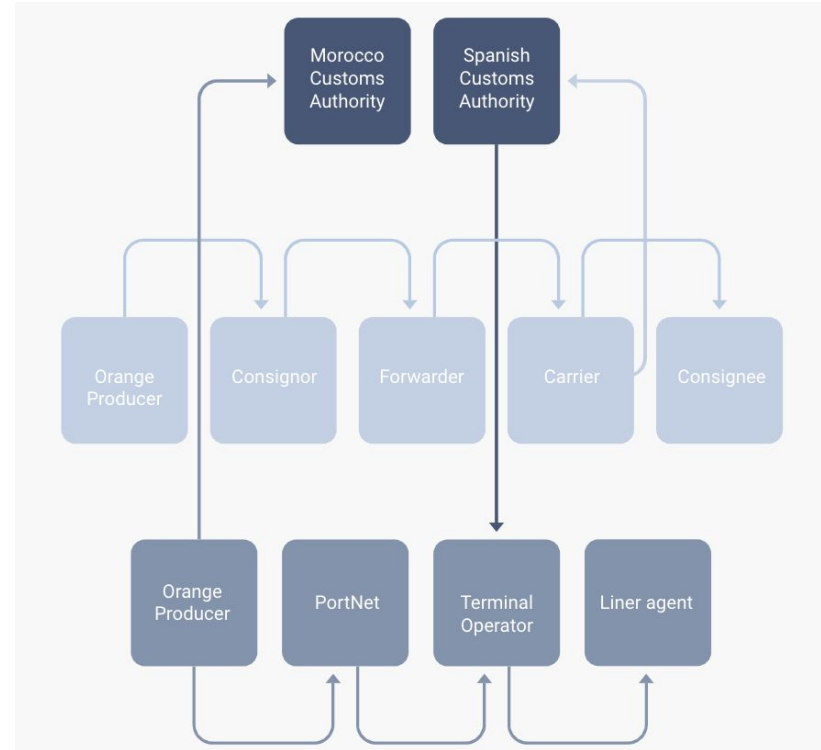
<https://atlas.tlip.io>

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: Moroccan Exporter

Event: Share access to COO

Action: ATLAS shares access with destination customs authority

Data: COO



Actor: Domestic Customs Authority

Event: Issue COO

Action: Verify request, review supporting documents & issue COO

Data: DUM, Commercial Invoice, packing list



Actor: Destination Customs Authority

Event: Validate COO

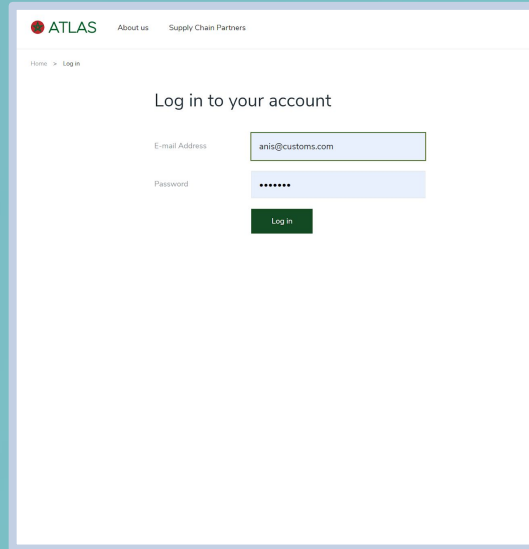
Action: Verify data on ATLAS

Data: COO

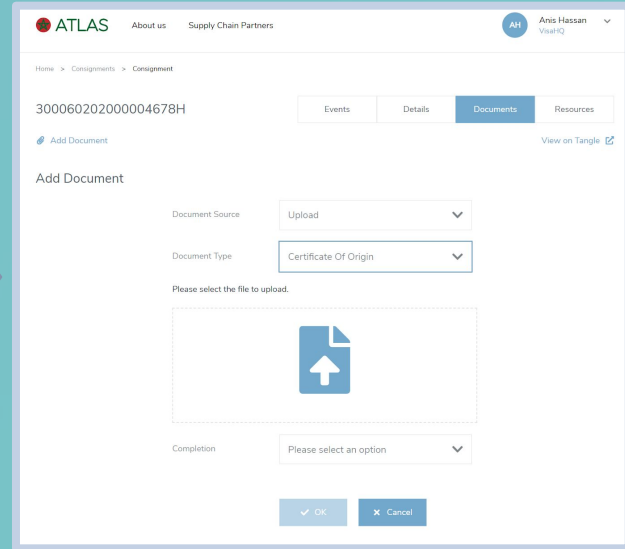
See the journey on our Demo

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

The screenshot shows the ATLAS web interface. At the top, there's a navigation bar with 'ATLAS', 'About us', and 'Supply Chain Partners'. A user profile for 'Anis Hassan VisaHQ' is visible. The main content area displays 'Certificate Of Origin v1' with a button 'Open Original Document in New Tab'. Below this, a message says 'If the preview below does not show please use the Open Original Document in New Tab button.' A large image of a physical Certificate of Origin document is shown in a dark frame.

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”.

The screenshot shows the 'Certificate Of Origin v2' data view. It features a table with the following data:

Reference Number	vWQ3K7ZvqKqHEW57
Document Number	7781832
Sender	MOROCCO CUSTOMS
Receiver	ATLAS
Preferential Exchange Between	MOROCCO AND EU
Country Of Origin	MOROCCO
Destination Country	SPAIN
Mode Of Transport	SEA
Observations	OK
Order Number	NG884213100
Item Description	ORANGES
Quantity	30
Package Type	

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

The screenshot shows the 'e-Pouch' section of the ATLAS interface. It displays a list of documents for reference number 30006020200004633G, all dated Jan 20 2021:

- Commercial Invoice
- Déclaration Unique de la
- Packing List
- Office National de Sécurité Sanitaire des Produits Alimentaires
- Phytosanitary Certificate
- VisaHQ
- Certificate Of Origin

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

View on Tangle

All certificates are secured on the blockchain!

See the journey on our Demo

The screenshot shows the ATLAS Supply Chain Partners interface. At the top, there's a navigation bar with 'ATLAS', 'About us', 'Supply Chain Partners', and a user profile for 'Anis Hassan VisaHQ'. Below this, the breadcrumb 'Home > Consignments > Consignment' is visible. The main area displays a consignment ID '30006020200004678H' and tabs for 'Events', 'Details', 'Documents', and 'Resources'. A calendar view shows the week of Jan 18-24, 2021, with a list of events: 'Created', 'Commercial Invoice Uploaded', 'D.U.M Uploaded', and 'Certificate Of Origin Requested'. A table below the calendar provides details for these events.

Event	Start	End	Organization	Doc/Data/Location	Status
Created	01/22/2021 at 12:19:53 9 minutes ago	01/22/2021 at 12:19:53 9 minutes ago	Univela Morocco Sarl		Complete
Commercial Invoice Uploaded	01/22/2021 at 12:21:01 7 minutes ago	01/22/2021 at 12:21:01 7 minutes ago	Univela Morocco Sarl	Commercial Invoice v1	Issued



The screenshot shows the 'API Key' section with the key '1be34daf-114b-436f-b218-c0289d31a'. Below this, there are two sections: 'Document Access' and 'Event Access'. Each section lists various document types with 'None', 'Read', and 'Write' permission buttons. The 'Update' button is highlighted in green.

API Key: 1be34daf-114b-436f-b218-c0289d31a

Document Access

- Certificate Of Origin: None, Read, Write
- Commercial Invoice: None, Read, Write
- Déclaration Unique de la Marchandise: None, Read, Write
- Packing List: None, Read, Write
- Phyosanitary Certificate: None, Read, Write

Event Access

- Certificate Of Origin Requested: None, Read, Write
- Created: None, Read, Write
- Custom: None, Read, Write
- Location: None, Read, Write
- Phyosanitary Certificate Requested: None, Read, Write

Update Cancel

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

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.

Keeps data on local servers

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.

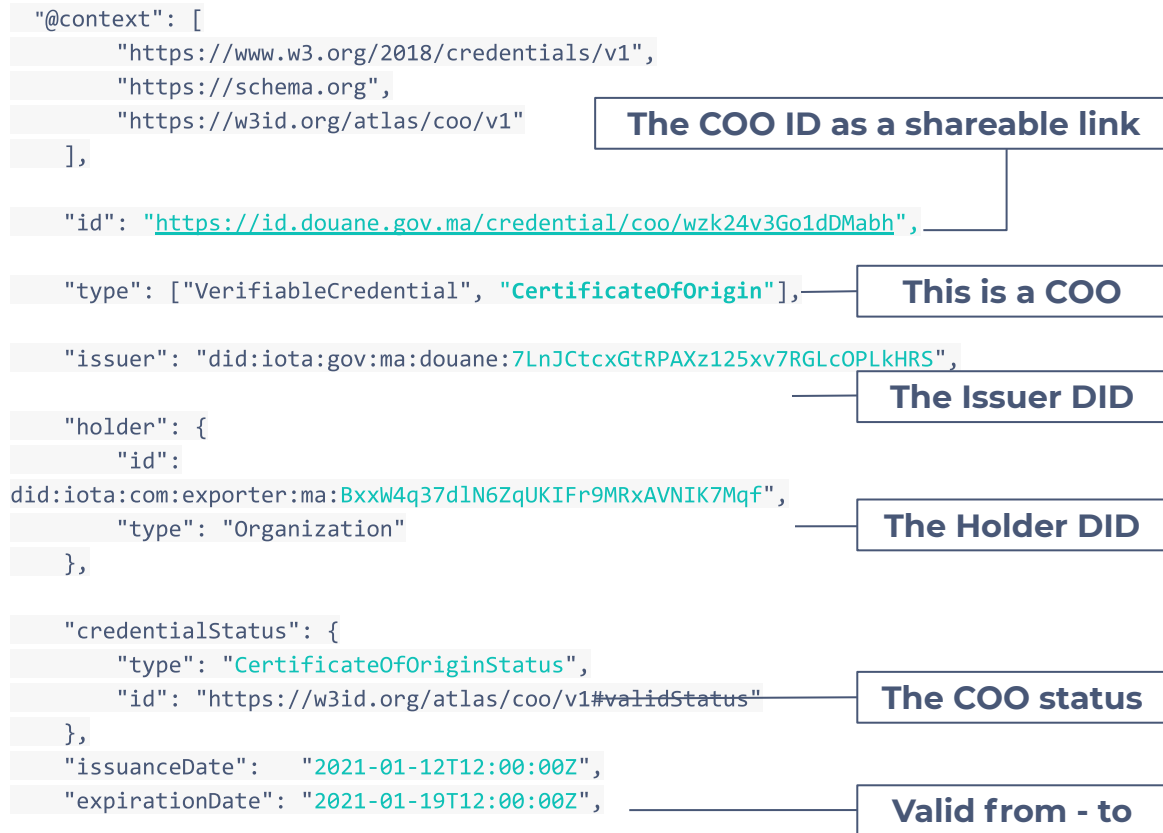
Fast, secure and international

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.

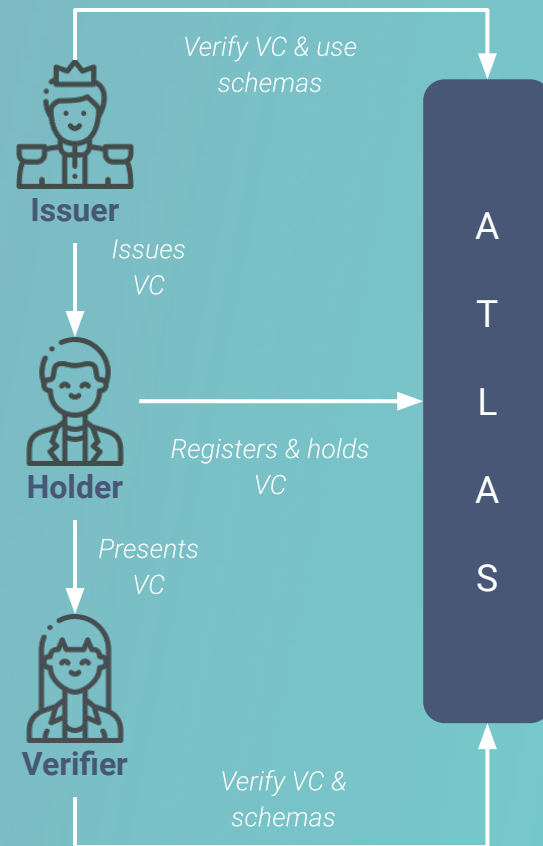
Not controlled by a central authority

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



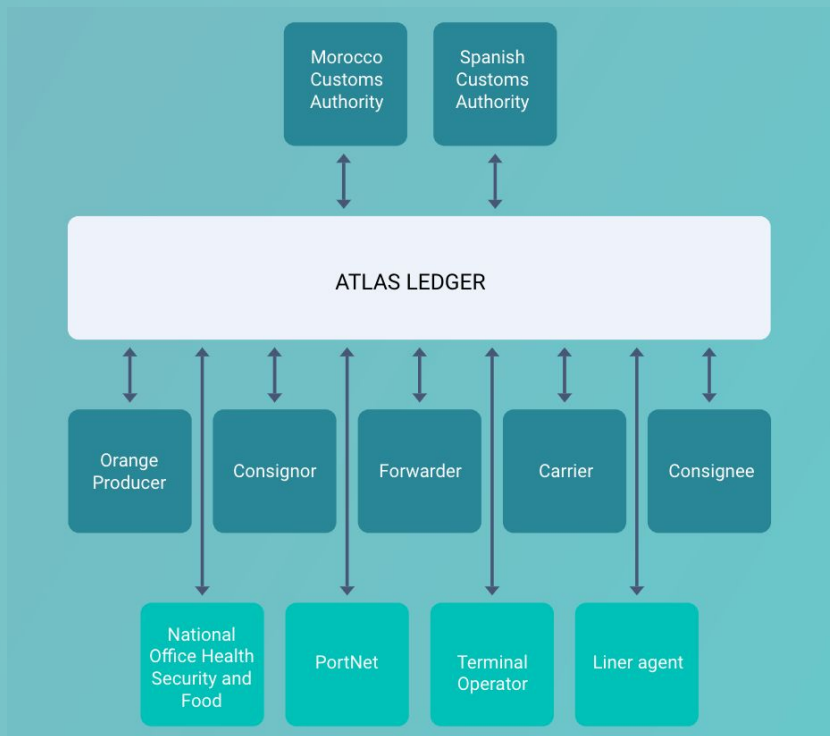
The Concept behind the Code



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

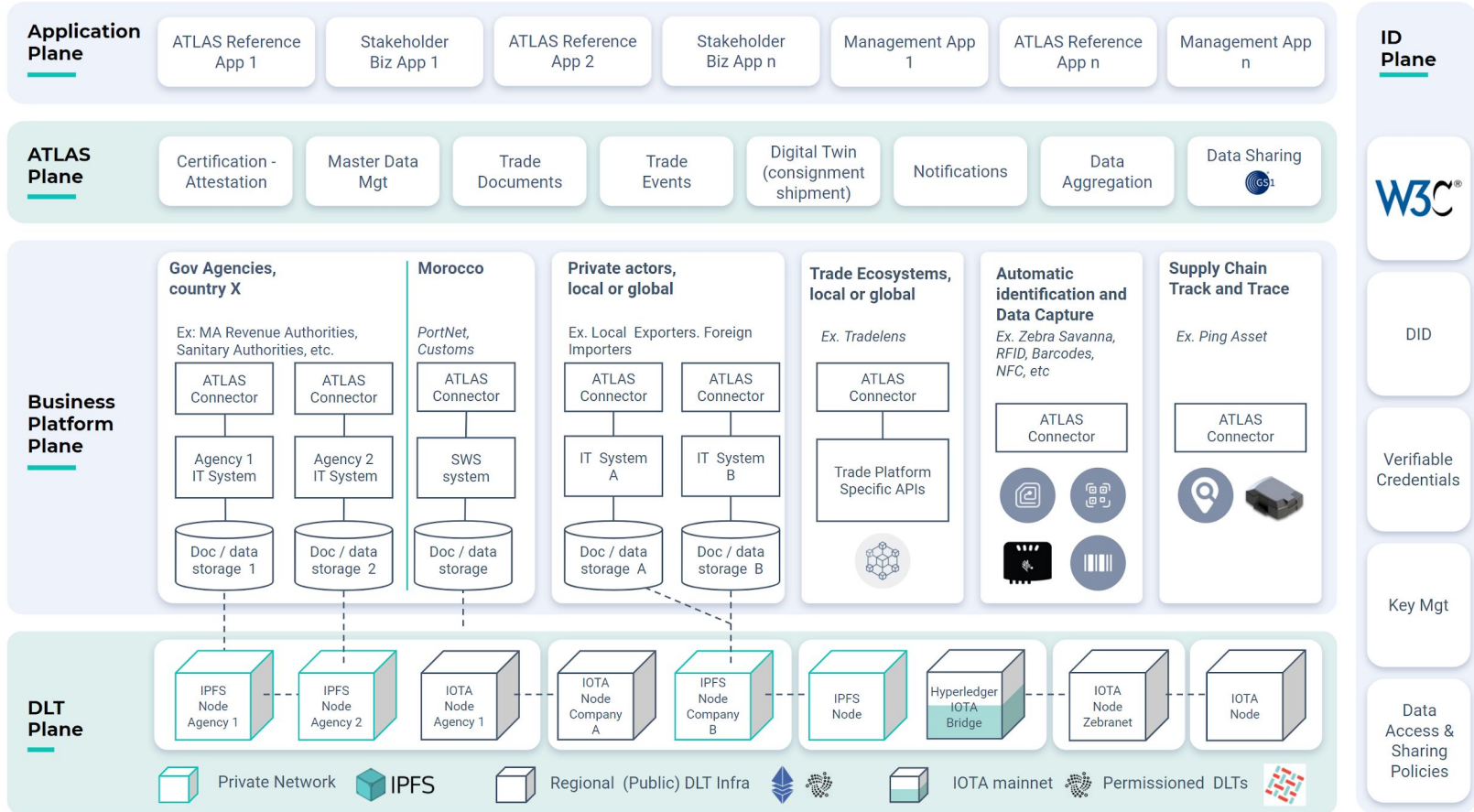
- Improve security processes and forefront planning



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



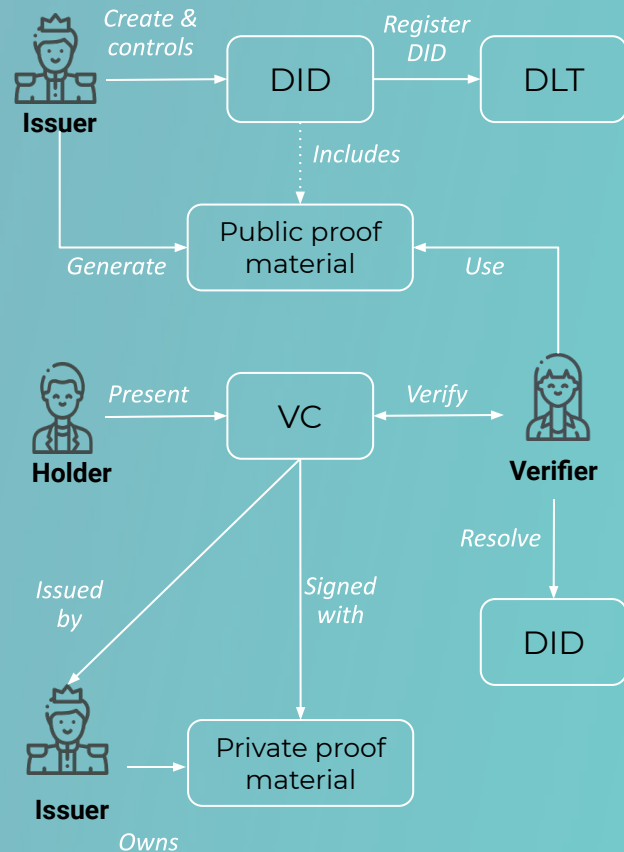
Digital Identity in Trade can realize the vision

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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