



ODeX eKYC

KYC on Blockchain Technology – White Paper



September 2018

Abstract

Know Your Customer – or KYC for short is increasingly one the biggest challenges of “doing business” – be it within a country or cross border trade.

In the EXIM industry – this is in particular an acute challenge – since the industry has many players who are part of the ecosystem that helps move Cargo from Origin to Destination. And due to the sensitive nature of Cross Border trade – it is essential that Service Providers have access to comprehensive, validated and immutable KYC data about Customers. It is also equally essential that Customers can provide this data without worry or fear of the data being compromised due to lack of adequate security.

The industry requires a manner of sharing KYC data – in an efficient, seamless, secure, authenticated, immutable and risk free manner.

ODeX eKYC delivers a Platform that enables stakeholders in EXIM trade to achieve the above – while ensuring that all compliance and regulatory requirements are adequately met for each Stakeholder.

This White Paper gives an overview of the ODeX eKYC platform.

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Disclaimer

The purpose of the Whitepaper is to present the ODeX eKYC platform to potential customers, partners, associates and any other organization / individual who seeks to participate in this project.

The information set forth is only a broad description of the project and does not contain the detailed design elements, which is proprietary to ODeX and EA Technologies FZE.

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1.0 Value Proposition

ODeX eKYC platform allows Service Providers in the EXIM Industry to verify Customers. This is developed on a platform (using the principles of BlockChain – for a closed group of stakeholders) The ODeX eKYC platform ensures that data of customers is validated seamlessly; while simultaneously ensuring that customer data is protected and safe. It is a B2B platform specifically designed keeping in mind the needs of the EXIM industry.

ODeX eKYC platform ensures the below for stakeholders:

Customers:

- Simple data submission process
- Fast validation
- Data protection through encryption
- Digital signature for document verification

Service Providers:

- Reliable and secure customer information
- KYC compliance in line with industry and regulatory requirements

Validators:

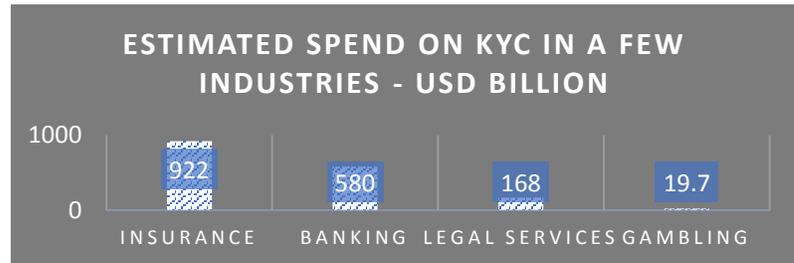
- Third Party, neutral service providers can offer validation & verifications services

ODeX eKYC will operate on the Platform as a Service model (PAAS) – thus making BlockChain technology accessible to all and reducing or even eliminating the ownership costs for stakeholders.

3.0 The Problem

Though there is no data specifically on the EXIM industry – it is a commonly accepted fact that for all Stakeholders in the EXIM trade, the cost of compliance adds atleast 6-12% to the cost of doing business.

In the APAC region firms have seen the cost of compliance increase by 20% over the past 2 years. A survey by LexisNexis suggests that atleast 10% customer accounts suffer on-boarding delays due to the KYC processes that Service Providers require them to comply with. We are sure that the costs would be similar for India too.



The major challenges in identity management can be categorized as follows:

Customer Organizations

1. Repetitive unproductive activity
2. Multiple versions of KYC with different entities
3. Long verification timelines
4. Extensive Data & Information shared with multiple entities

Service Providers

1. High verification costs –from USD 10 to USD 100+
2. Complex and lengthy verification process
3. Unproductive, repetitive activity

Stakeholder also have to bear the costs of multiple Data Storage Infrastructure and Data Management Costs – a cost that is expected to increase substantially with regulations like GDPR coming into effect.

Additionally, the compliance processes can be repeated multiple times by subdivisions of an organization due to “data siloing”, effectively multiplying costs. Data silos are repositories of data which exist specifically for and remain under the exclusive control of divisions of an organization. One division’s repository is often inaccessible to other divisions and/or incompatible with other division’s systems, despite this data being useful to both divisions. These inefficiencies stem from a lack of flexibility and poor interoperability between the organization’s technological and bureaucratic systems.

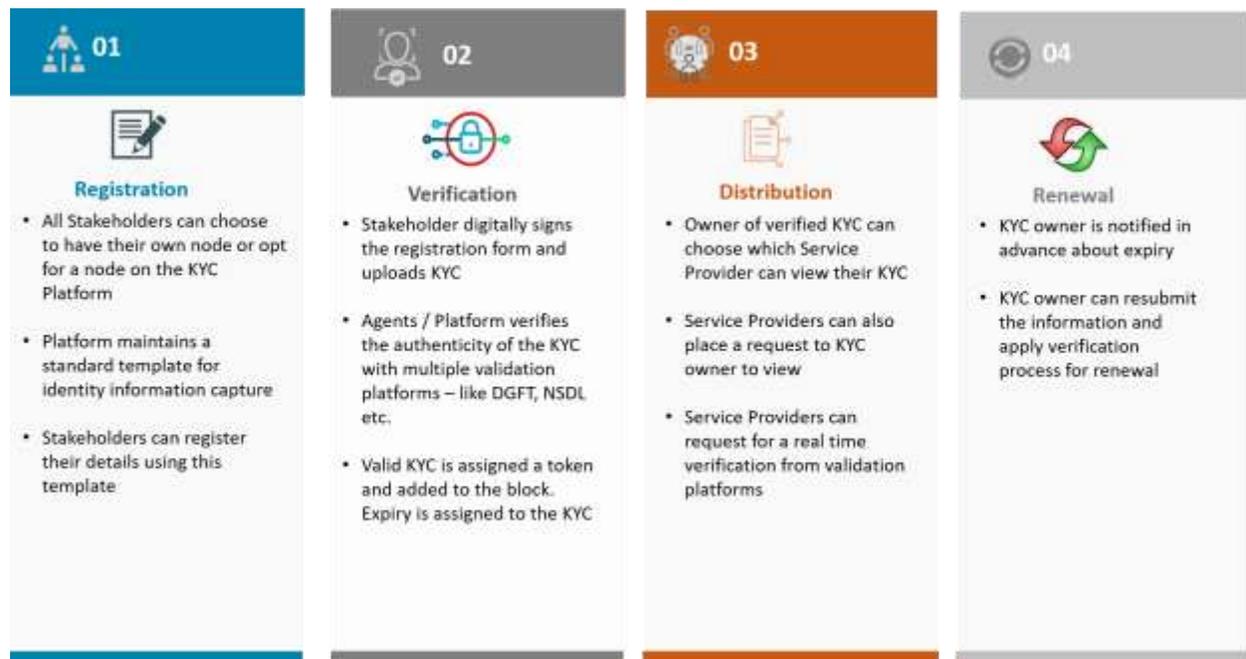
These costs do not even consider Data Protection. Data breaches are increasing in frequency & size, and as the 2017 Maersk NotPetya attack shows – such incidents can be a very expensive affair for any organization.

4.0 The Solution

Distributed ledger technology (based on BlockChain) – has the potential to reduce risks, cut costs and streamline the KYC processes completely.

ODeX eKYC facilitates the accessibility and organization of KYC data by leveraging the distributed ledgers and the programmability of smart contracting. In the context of KYC compliance, the total resources required for compliance can be reduced to the barest minimum.

The ODeX eKYC management process functions as below:



The system will have the 3 nodes maintained by ODeX eKYC platform as consensus building entities or validators.

These three categories of nodes are as below:

- 1. Data Issuers** - Owners of KYC Data. They may or may not be regarded as Trusted Entities. They provide their KYC/AML data to Trusted Entities in exchange for an attestation.
- 2. Data Validators** - Regarded as Trusted Entities. They receive Data from Issuers; review, confirm and attest to its validity and existence.
- 3. Data Consumers** – Organizations that require the use of KYC data. They review attestations, determine usability, and request Data from holders.

The nodes record and validate transactions on the Distributed, De-centralized ledger.

5.0 Data Entity

The system will store all the relevant hash of details of the following in the blockchain (not all may be applicable, and more may be added to the list):

- Organization Name & Type of business
- Address
- Company Number Details
- Tax Details (PAN & GST)
- Import Export Code
- MTO License
- CHA License
- Data Consumer Access

Data Issuers can submit these details through a mobile app or a web based UI. It is strongly recommended that Data Issuers attach scans of the KYC documents issued by regulatory authorities, and digitally signed by the Data Issuer.

ODeX eKYC will reject any submissions that are not digitally signed or have a 'non-valid' digital signature. Further, the data will be submitted to a validator for authenticity checks.

Essentially the details will be validated through the above consensus and become part of the Blockchain based platform.

6.0 The Technology

Blockchain is a distributed and shared ledger technology that allows all the participants of the ecosystem to see a single, consistent and irrefutable version of the system of record.

Quorum is an Ethereum-based distributed ledger protocol with transaction or contract privacy and new consensus mechanisms. Quorum supports private transactions and private contracts through public or private state separation and utilises constellation, a peer-to-peer encrypted message exchange for directed transfer of private data to network participants

The key components of the solution design are:

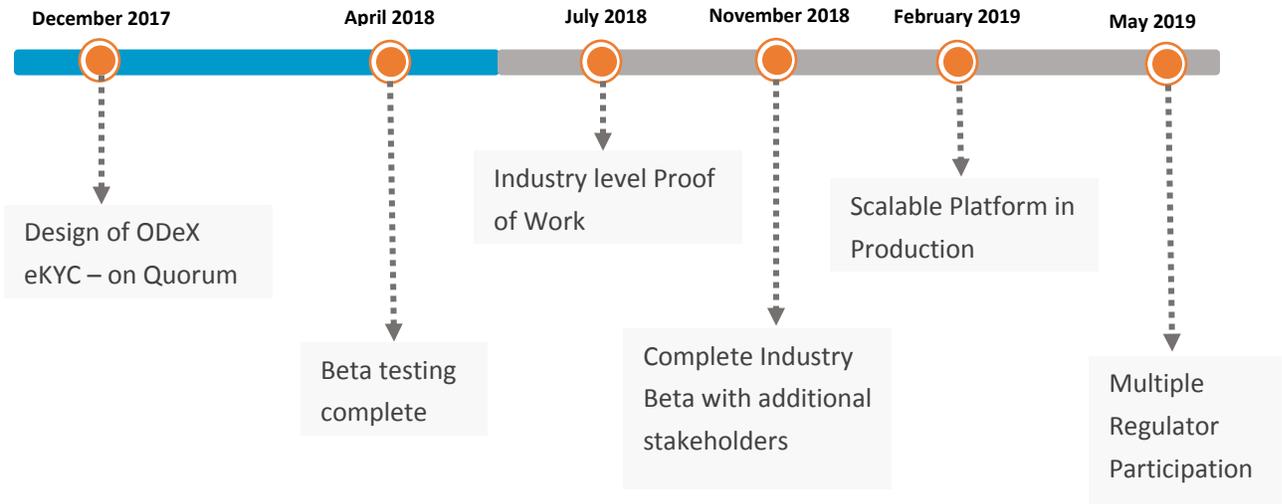
- Server
- Smart-contract
- Web based application and /or mobile application

The Blockchain based platform can be accessed in three different ways:

1. Direct web based appeal. This is used as the primary way to interact with the system and is available to all users.
2. Appeal through the server API. Services can communicate with system users via an API in order to verify their own users through KYC.
3. Mobile application. The application exchanges data with the database through the server API.

7.0 The Roadmap

Our current state of technology is Functional Beta. We are actively integrating with various Customers and Service Providers.



ODeX eKYC will be implemented in various phases.

8.0 About ODeX

ODeX is the Community Platform for Ocean Shipping – for Communication, Documentation, Payments for the EXIM Trade.

ODeX today connects over 15,000+ organisations and 25,000+ users with each other. Since launch of ODeX in 2015, we have processed nearly 7 million transactions for various stakeholders.

It is for the benefit of this ecosystem that ODeX has developed the ODeX eKYC platform on BlockChain technology.

Team ODeX consists of technologists with experience in many areas – and together we have a combined experience of over 400 years in design and development of new technologies and solutions.

To know more about us – visit us at www.odex.co