TRADETRUST NEWSLETTER ISSUE 01
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TRADE DIGITAL

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INFOCOMM MEDIA DEVELOPMENT AUTHORITY

TRADETRUST TRIALS AND PARTNERSHIPS

1. Electronic Bill of Lading Proof of Concept

Supported by: MPA SINGAPORE

Figure 1: Attendees of 2-day workshop from PoR, MPA and IMDA

In Oct 2019, the Infocomm Media Development Authority of Singapore (IMDA) and the Maritime and Port Authority of Singapore (MPA) co-hosted a two-day workshop for the delegates from the Port of Rotterdam (PoR) to work together on the requirements of title transfer capability in relation to electronic bill of ladings (eBLs) for cross-border trade transactions. The alignment achieved through the workshop provided valuable input in the development of title transfer capability through the TradeTrust software components.

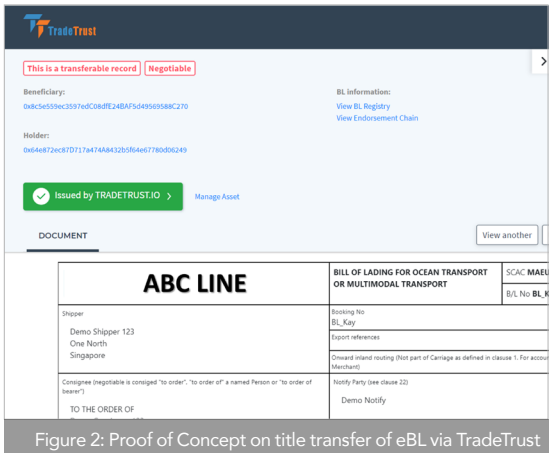


Figure 2: Proof of Concept on title transfer of eBL via TradeTrust

On 31 Mar 2020, a successful Proof of Concept (PoC) was executed by representatives from IMDA, MPA and PoR, where simulated transactions were carried out to transfer the title eBLs from a shipper from Rotterdam to a consignee for shipments to Singapore and vice versa. The results from the trial further demonstrated that eBLs could soon become an interoperable electronic shipping document, opening the possibility of automation in cross-border trade transactions on an open framework based on internationally accepted standards.

Editor's Note

The COVID-19 pandemic has created a great deal of hardship for all of us, risking our health and disrupting businesses around the world. Suppliers have had to halt production and logistics providers can no longer transport goods seamlessly across borders. International trade, reliant on paper-based processes, is now a concern as a vector of disease transmission, and poses yet another challenge in the processing of these documents.

The global crisis has brought these problems to the forefront, but it also creates an opportunity for the trade and logistics sector to evolve current processes through the digitalisation of trade documentation. Many of us have reservations from fragmented and silo digital efforts, but these issues can be addressed if we tackle them holistically. By looking at legal harmonisation, recognised international standards, the use of accredited software, and through the distribution of open source software that is accessible and easily integrated to make digital platforms interoperable, digitalisation can be achieved.

Our journey in developing TradeTrust has been in developing all these aspects, and results have been encouraging. However, there is still much to be done and the best results come from collaborations with members of the industry such as yourself. As such, we gladly welcome you to speak with us for opportunities to further this journey of trade digitalisation together.

In the meantime, stay safe and stay healthy.

- **Sin Yong Loh**
Director, Trade, IMDA

2. IMDA Partners with ICC and 17 Firms to Accelerate Trade Digitalisation

IMDA has engaged and brought in new partners to join our effort towards trade digitalisation. The collaboration between IMDA and ICC together with 17 industry partners was formalised through a Memorandum of Intent (MOI) that was signed alongside the World Economic Forum at Davos in January 2020 pushing for the promotion and acceleration of digitally-enabled trade. The global industry leaders participating in the agreement are APRIL, DBS Bank, Marubeni Corporation, Mastercard, Mitsubishi Corporation, Mitsui & Co., Ltd., Mizuho Bank, Ltd., MUFG Bank, Noble, NTT DATA, PSA International, Sompo Japan Nipponkoa, Standard Chartered Bank, Sumitomo Corporation, Sumitomo Mitsui Banking Corporation, Tokio Marine, and Trafigura.

Figure 3: Attendees at the signing of the MOI

OPEN SOURCE SOFTWARE – LATEST RELEASE

The TradeTrust software will be distributed as open source software making it transparent and freely available in order to catalyse industry adoption. The TradeTrust software will observe the following five design principles.

Public and Permissionless
No central governance authority

Data Off-Chain
Preserves data confidentiality

Payload Agnostic
No data format or standard restriction

Open-Source
Full transparency for faster adoption

MLETR-Compliant
Meet the requirements of the law (for electronic negotiable documents)

Figure 4: Five design principles of TradeTrust

The software is available for download at *github.com/TradeTrust*

The software will be developed and released in stages. The initial prototype releases are for the industry to conduct Proofs of Concept and trials to verify its use and viability. All industry members are welcome to continue using the prototype to conduct their trade transactions digitally. A production version of the software is slated for release in early 2022.

Prototype V1 - Proof of Authenticity and Provenance

The Prototype V1 is able to provide proof of authenticity and provenance of trade documentation by leveraging on the use of distributed ledger technology (DLT). Current forms of digital documentation are neither tamper-proof nor able to prove the source of origin resulting in trade transactions still falling back to paper documentation at some point in the supply chain. V1's capability addresses these gaps by providing tamper-proof features, enabling documentation tracing to the source of origin. Through the use of V1 features, participants of TradeTrust are able to verify the authenticity and provenance of a digital document.

Prototype V2 - Title Transfer

The Prototype V2 are enhanced with the ability to perform title transfer on trade documents electronically. This ability will be pivotal in transforming paper-based processes to digital ones for cross-border trade. The transfer capability shall be compliant to the **UNCITRAL Model Law on Electronic Transferable Records (MLETR**), which stipulates the conditions electronic trade documents must fulfill in order to be the functional equivalent of paper-based ones. There will therefore be only a single "transferable" document at any one time, and its ownership from creation to expiry is controlled by only a single party at any one time. The V2 release can now therefore handle the title transfer of negotiable title documents like the eBL.

What's Next

The next release of the TradeTrust prototype will add the Identity Attestation functions to allow third parties to provide the attestation service. Do look out for our upcoming announcements.

TRADETRUST RELATED STANDARDS DEVELOPMENT

UN/CEFACT Project 1: Cross border Inter-Government Ledger using Blockchain

Free Trade Agreements that are signed between countries require a Certificate of Origin to accompany every shipment to avail a reduced duty rate. At present, most Certificates of Origin are paper documents that are slow and expensive to produce. Therefore, electronically verifiable, digital-origin evidence will be pivotal in streamlining the process, reducing costs and reducing compliance issues at the border. To make this viable, the digital solution needs to address the issues of trust, mutual recognition, data sovereignty, auditability and traceability. The Inter-Government Ledger(IGL) - also known as the Inter Customs Ledger - will leverage blockchain technology for governments to securely exchange data and for any third party to verify the integrity of this data. The IGL specifications shall be provided as a suite of standard application programming interfaces (APIs) so that the industry and governments can reference the Certificates of Origin and any other trade documents.

For more information, the IGL project details are available in this *link* and its draft specification is published *here*.

Note: IGL was previously known as Inter Customs Ledger (ICL)

UN/CEFACT Project 2: Transfer of MLETR-compliant titles

Facilitating paperless trade has been an important objective of UN/CEFACT's deliverables, especially working on the dematerialisation of business processes. However, there are still paper documents such as negotiable financial instruments (e.g. bill of lading) which are widely used today and have resisted the process of dematerialisation. UNCITRAL has developed the Model Law on Electronic Transferable Records (MLETR) which establishes the proposed legally-enabling environment to resolve this problem. This project aims to propose the framework and guidance on how to satisfy these issues of reliability. This project started in Nov 2019 and is currently at its initial phase of draft development. The project team welcomes further participations and input from both private and public sectors.

For more information, please see the project details at *Transfer of MLETR-compliant titles*.

LEGAL HARMONISATION

Singapore's Electronic Transactions Act (ETA) was first enacted in July 1998 to provide a legal foundation for electronic signatures, and to give predictability and certainty to contracts formed electronically. The ETA was last amended in 2010 to bring the law in line with the UNCITRAL Model Law on Electronic Commerce.

In 2019, IMDA started the review of the Electronic Transactions Act (ETA) to further facilitate innovation in the Digital Economy and the enactment of a legislative framework for Electronic Transferable Records (ETRs). The following key areas will be reviewed

a) Enable more transactions under the ETA *including property transactions, lasting power of attorney and negotiable instruments such as bills of lading*

b) Offer legal certainty on the use of technologies *such as DLT, smart contracts and biometrics*

c) Update the Certification Authority (CA) framework *to ensure currency with the latest international standards*

Figure 5: Key areas to be reviewed in the ETA

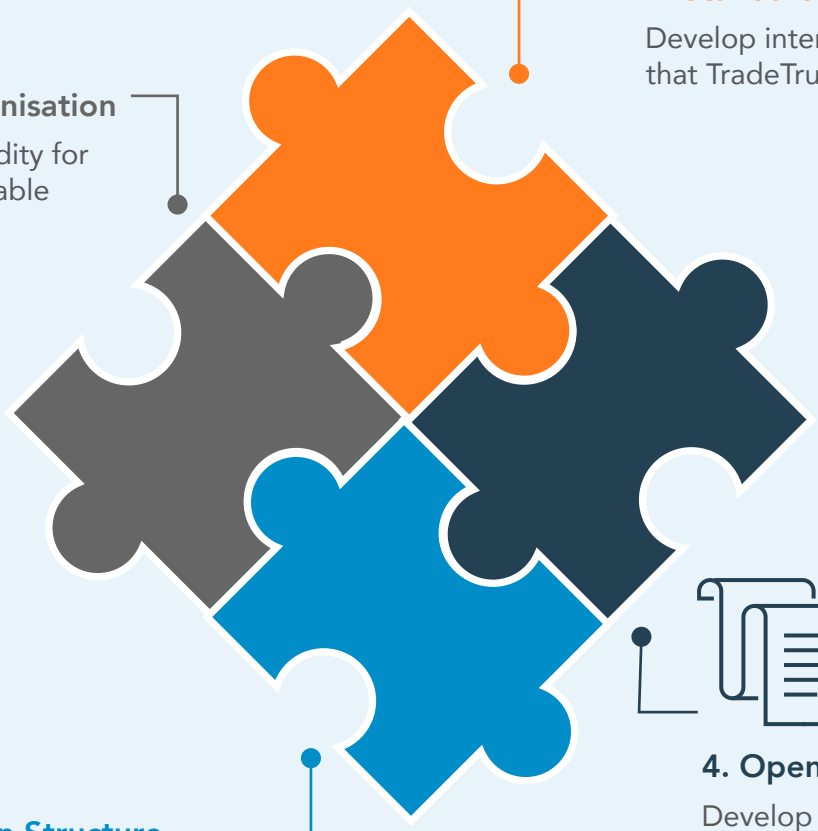
The use of ETRs will speed up trade processes and benefit businesses that adopt digital means for transacting. This will be the game changer to shift from paper-based trade to digitally- enabled trade.

For the latest on the ETA review, see *here*.

About TradeTrust

TradeTrust comprises a set of globally-accepted trade process standards and frameworks, that connects governments and businesses to a public blockchain. In doing so, it enables interoperability across different platforms so that electronic trade documents can be exchanged in a trusted fashion across these digital platforms.

4 Key Components of Trade Trust



1. Legal Harmonisation

Provide legal validity for electronic negotiable documents

1. Standards Development

Develop international standards that TradeTrust complies to

3. Accreditation Structure

Certify technical solutions meet the requirements of the law

4. Open Source Software

Develop a set of open-source codes that can easily integrate backend solutions to TradeTrust network