Trade Digitalisation: TradeTrust

Transform the way you trade

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INFOCOMM MEDIA DEVELOPMENT AUTHORITY

IMDA as ARCHITECTS OF SINGAPORE'S DIGITAL FUTURE

Vision: To build a dynamic digital economy and a cohesive digital society that is driven by an exceptional infocomm and media ecosystem

Transform Singapore's Economy through Digital

Economic

Digital Enterprises
Capability and confidence to use Digital to transform business models and stay competitive

Digital Innovation
World class research and cutting-edge technology that drive product/service innovation and sector transformation

Digital Workforce
Local core that is globally competitive

Powering the Media Sector
Capture economic value and buzz for Singapore on the global media stage

Regulatory

Digital Infrastructure
World-leading, future ready, secure and trusted.

Digital Regulation
Progressive regulations that build a trusted digital space for innovation, and a safe digital space for citizens

Build a Cohesive and Digitally Inclusive Society

Social cohesion

Digital Inclusion
A safe and inclusive Digital Society, where all Singaporeans can participate in the digital future and embrace digital for life.

International
Create & expand our geo-political and economic space

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What the TradeTrust Framework offers



Privacy & Control



Authenticity



Provenance



Transferability

Across multiple systems!

a.k.a **Interoperability**

= Makes for easier scaling up

What the TradeTrust Framework offers



Privacy & Control

Commercially sensitive data is contained in a file that is under the control of businesses and used through their own choice of solutions



Authenticity

Assured through tamper-evident methods like hashing



Provenance

Make use of modern cryptography techniques to ensure traceability



Transferability

Satisfies requirements of MLETR

A legal article published by Stephenson Harwood LLP on the legal validity and practical use of TradeTrust eBLs (Sep 2023)

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Please download from
https://www.tradetrust.io/legality

FUTURE-PROOFING THROUGH ALIGNMENT TO A GROWING LEGAL STANDARD - MLETR

The MLETR sets forth a list of functional requirements that when met, enable an electronic record (eBL) to be treated as functionally equivalent to that of the paper version (BL).

<u>Bill of Lading serve as:</u>

1. Evidence of the contract of carriage

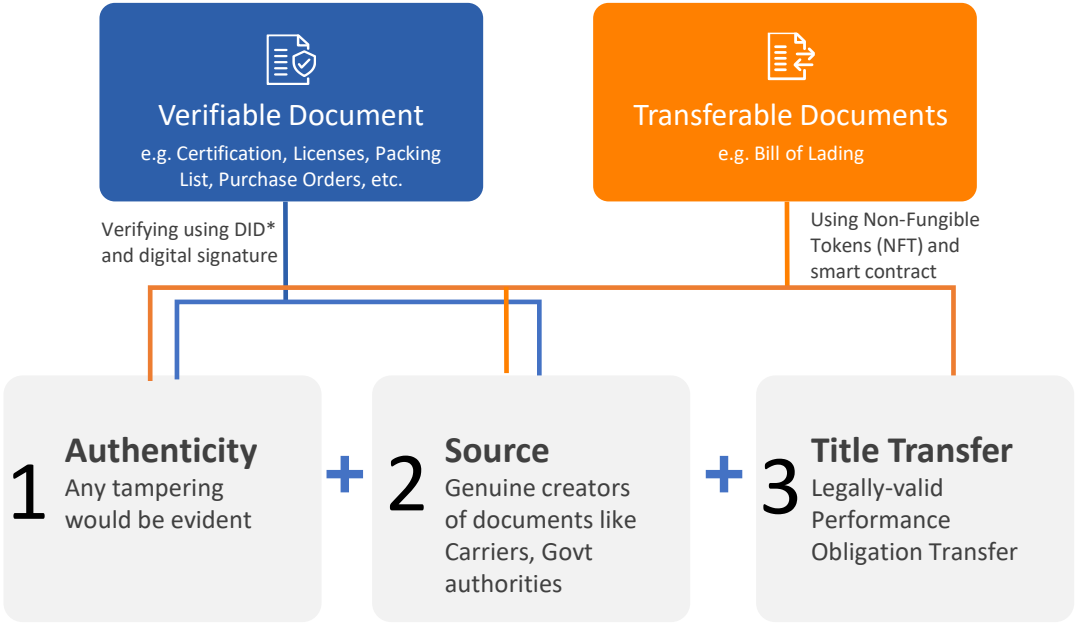
2. Receipt for goods

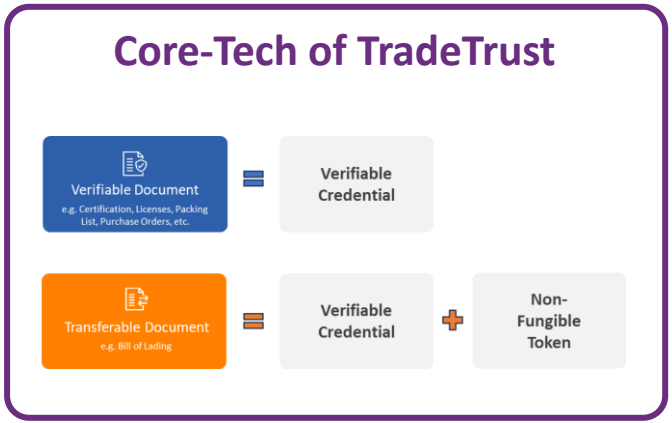
3. Document of title to goods

Paper	Electronic	How it is achieved via TradeTrust
Unique Original Title Document	Singularity - Identify that electronic record as the electronic transferable record - Functional equivalent of unique original	Tokenisation
Possessing that Title Document	Exclusive Control - Render that electronic record capable of being subject to control from its creation until it ceases to have any effect or validity - Functional equivalent of possession	Smart Contract
Endorsement chain on that Title Document	Integrity - Retain the integrity of that electronic record	Cryptographic hash and Public Ledger

TRADETRUST'S 3 KEY FUNCTIONALITIES: AUTHENTICITY, SOURCE & TITLE OWNERSHIP FOR TRADE DOCUMENTS

TradeTrust is designed to provide industry the means to create documents whose **authenticity** and **source** are easy to verify, as well as to create Electronic Transferable Records (ETRs) that are functionally equivalent^ to their paper versions (e.g. able to **effect title transfers).**





^Singapore's 2021 amendment of its Electronic Transactions Act (ETA), one of the first few internationally, enables the creation and use of ETRs such as electronic Bills of Lading (eBLs), empowering practitioners to reap the benefits of digitalisation more easily.

**Decentralized Identifiers (DID) are a new type of unique cryptographically verifiable identifiers that are designed to be decoupled from centralized registries, identity providers and certificate authorities*

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TRADETRUST FRAMEWORK IS ACCESSIBLE TO ALL

Application Layer
[Business applications]

Finance · Insurance · Logistics · Platforms · Ecosystems · ...

Commercial Applications/Platforms/Ecosystems

TradeTrust

- Payload Agnostic Documents
- Document Verification
- MLETR Compliant Title Transfer
- Distributed File Store
- Seamless Exchange Paper ⇄ Paperless
- Identity Resolver (Verifiable Claim)
- Smart Contracts
- Connectors
- API
- ...

Blockchain Layer

ethereum · polygon · XinFin (XDC) Network · Sidechain · ... · STABILITY

United Nations UNCITRAL

UNCITRAL Model Law
MLETR, MLEC, MLES
Singapore ETA

UN/CEFACT · W3C®

Standards Development

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NEW ERA OF INTEROPERABLE ELECTRONIC BILLS OF LADING FOR DOCUMENTARY TRADE FINANCE



https://youtu.be/vbZMPAnQRhM

TradeTrust Implementation Model

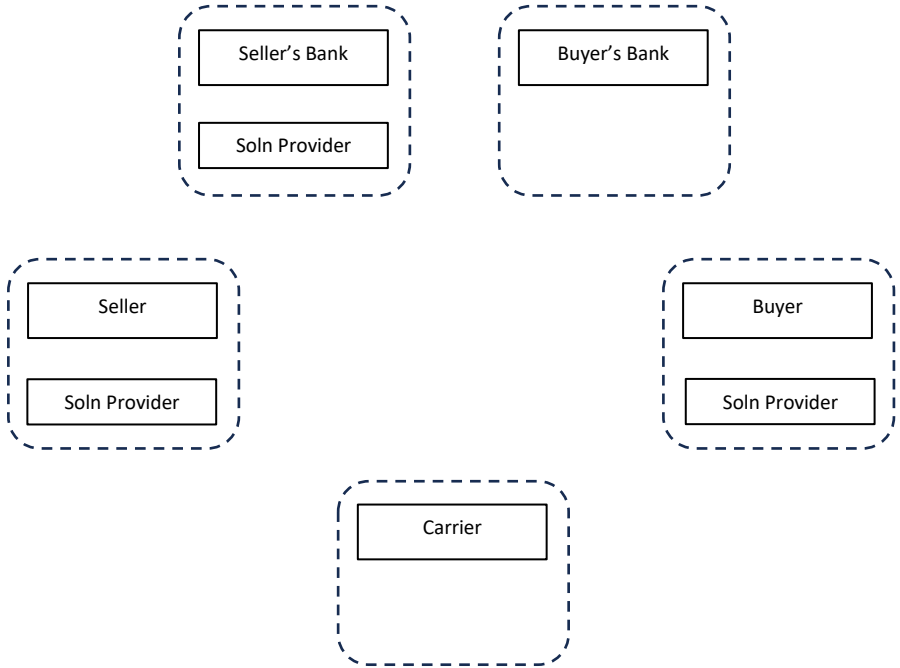
1) Parties that issue eBLs (e.g. Carriers, Vessel operators)
2) Parties that endorse eBLs (e.g. Sellers, Traders, Banks)
3) Parties that surrender eBLs (e.g. Buyers)

EACH of these Parties can:

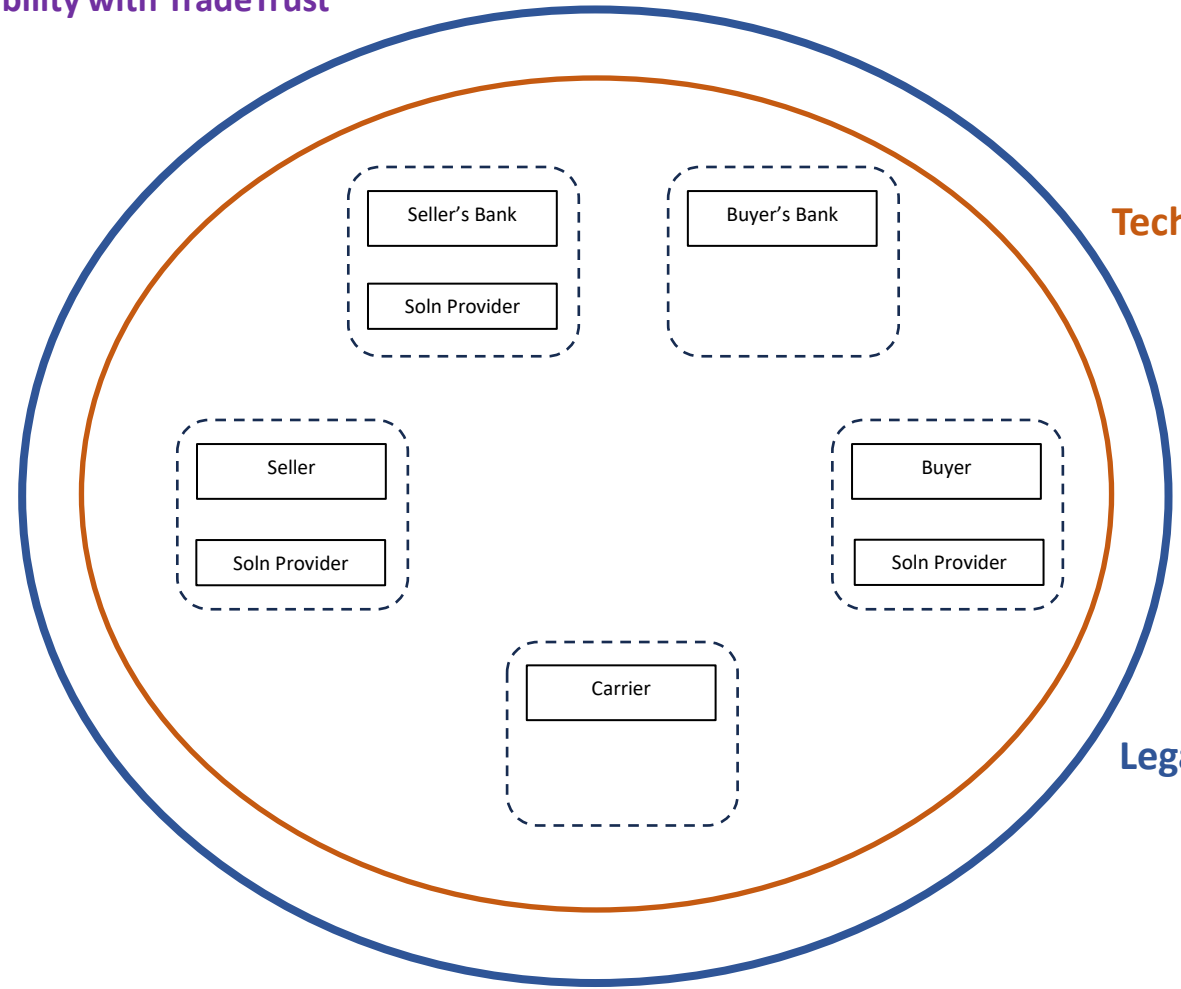
a) incorporate the TradeTrust software components into their own solutions to perform necessary operations

OR

b) Use a solution/platform from 3rd-party software providers who have incorporated the TradeTrust software components into their solution/platform



Interoperability with TradeTrust



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Interoperability – Legal Solution

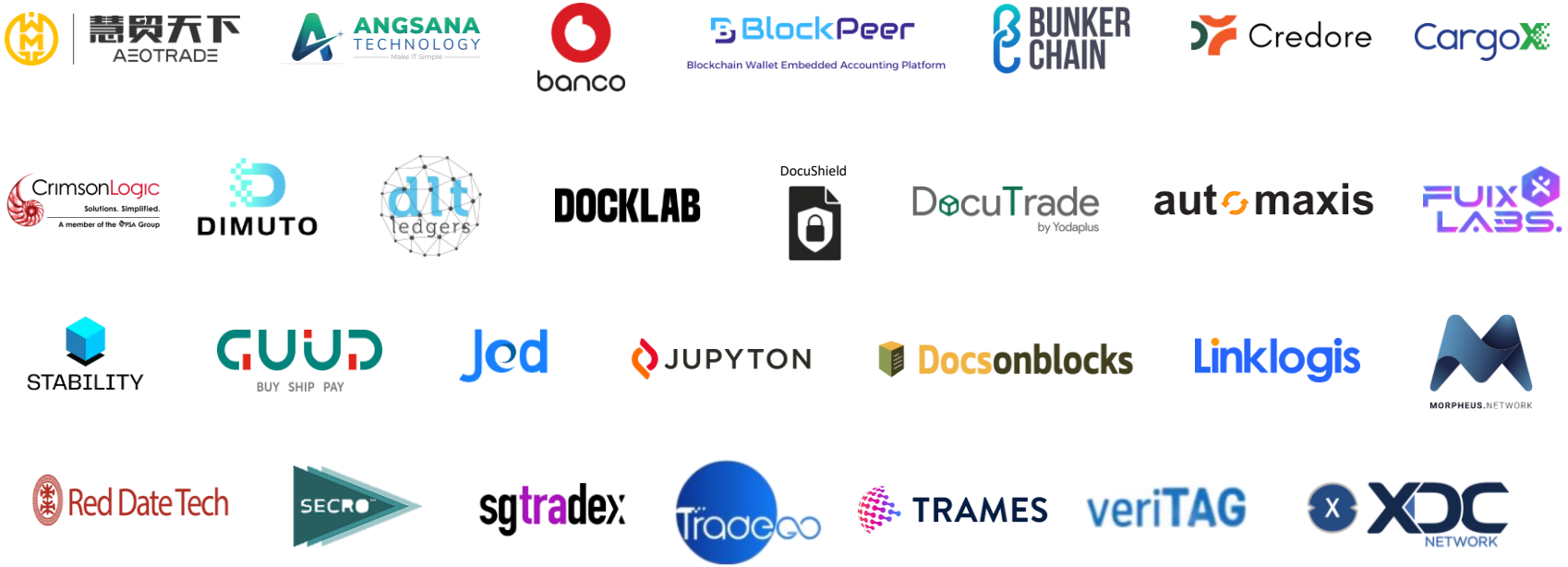


- **Model Terms**: open-source legal terms which any TT Adopter (i.e., BSP) can adopt into their platform's EULA and TT eBL's T&Cs as they deem relevant. They are NOT meant as a full set of comprehensive terms for BSPs but can serve as a baseline reference.
    - Part A - Definitions
    - Part B - Terms to be sited in User Agreement Terms and Conditions
    - Part C - Terms to be incorporated in every TradeTrust eBL

- **Guidance Notes:** notes to guide the industry on IG's approval process and explain how the Model Terms can be applied.

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TRADETRUST'S PARTNERS



TradeTrust

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USE CASES

Use Case A
Trade Finance



- **Improve operational efficiency** through faster transfers of title and other documents digitally and automate document validation
- **Reduce risk of trade finance fraud** and increase confidence in financing
- Who can benefit?
  Financing Banks, Exporters, Importers, Carriers, Insurers, Surveyors

Use Case B
Trade & Logistics



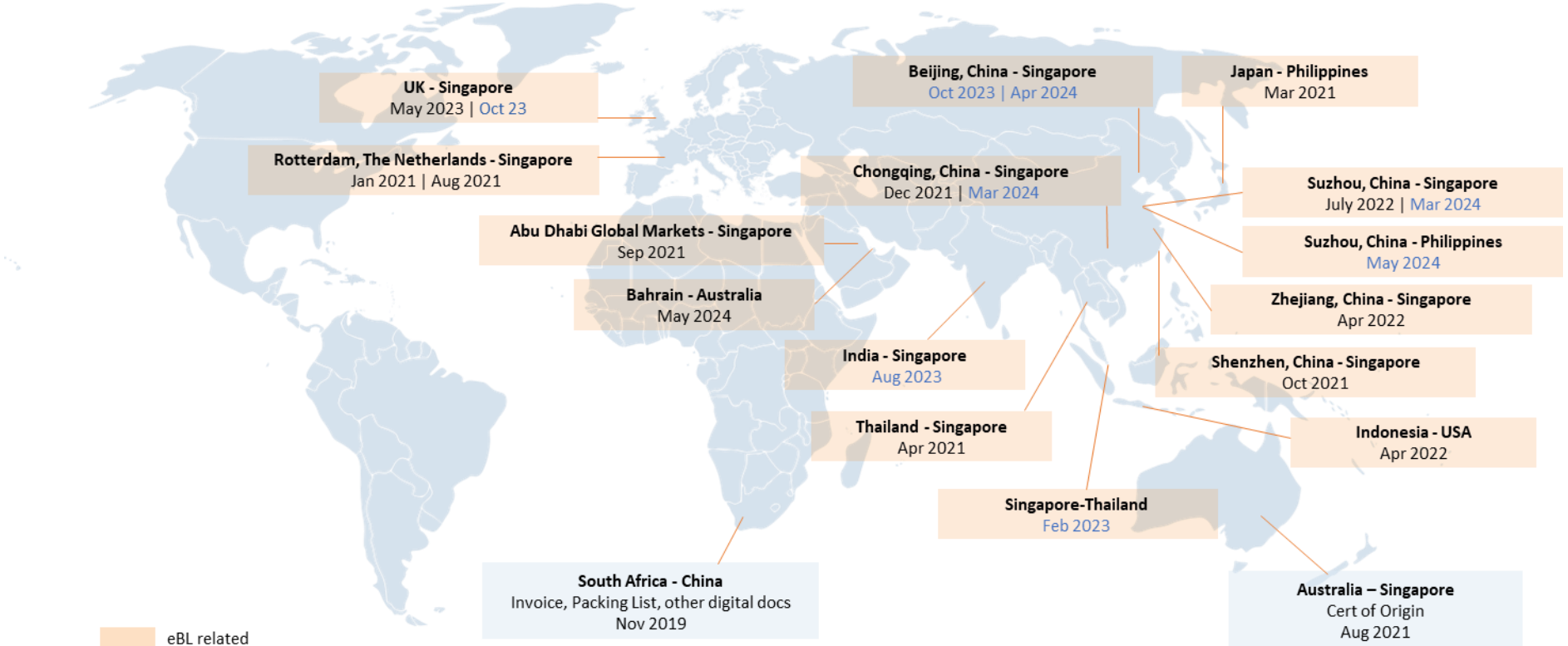
- **Increase productivity** and **optimise asset utilisation** through land logistics efficiency
- **Lower overhead cost of paper** and **reduce unnecessary demurrage and detention charges** of holding cargo due to delay in documentation
- Who can benefit?
  Shippers, Consignees, Carriers, 3PL agents, Borders Control Authority, Port Operators, bunkering service providers

Many Other Use Cases…
Business Solution Providers



- **Improve service offerings** through the development of innovative digital products and services using TradeTrust open-source code
- **Increase new business** and **partnership opportunities** to drive a vibrant digital economy
- Who can benefit?
  Platform providers in bunkering, trade compliance, FinTech, Digital Art, Supply Chain, Logistics Services, Certification and Licenses Issuance

TRIALS WITH INDUSTRY PARTNERS AND OVERSEAS GOVERNMENTS



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GLOBAL PARTNERSHIPS

MAERSK ICICI Bank DBS

Singapore and India kick off an era of interoperable electronic Bills of Lading for Trade Finance

PRESS RELEASES

TradeTrust enables interoperable electronic Bills of Lading (eBLs)[1] backed Letter of Credit transactions between Singapore and Indian banks and companies, paving the way to digital cross-border trade.

SINGAPORE – 25 AUG 2023

1. Singapore and Indian banks and companies successfully kicked-off the first live transaction using the TradeTrust Framework, for a shipment between Singapore and Indian businesses. This was

PIL 中粮国际 COFCO INTL 一豐有限公司 YIT HONG PTE LTD

First cross-border paperless trade between China and Singapore powered by IMDA's TradeTrust and Beijing's AEOTradeChain has been successfully piloted

PRESS RELEASES

SINGAPORE – 23 OCT 2023

The Office of the Leading Group for the Work of the China (Beijing) Pilot Free Trade Zone and the Integrated National Demonstration Zone for Opening up the Services Sector (referred to as the "Beijing Two-Zone Office") and Singapore's Infocomm Media Development Authority (IMDA) have completed the first live digital trade between China and Singapore on the 19th of October 2023.

SWIFT and Singapore's IMDA Join Forces to Drive Global Trade Digitalisation

TRADE, 6 OCTOBER 2020

Collaboration combines the reach, scale and reliability of SWIFT with IMDA's efforts on technology and legal frameworks to accelerate trade digitalisation

JAN 2020 MOI TO FURTHER DIGITALISATION IN TRADE



ExxonMobil ULH BUNKER CHAIN

IMDA partners industry to conduct world's first live electronic transferable record (ETR) cross-border trade, supported by statutory law framework.

PRESS RELEASES

PUBLISHED ON: 11 APRIL 2023 | 5 MINS READ

SINGAPORE - 30 MARCH 2023 – Singapore pushes the boundaries of digitalisation for global trade as the Infocomm Media Development Authority (IMDA) partnered industry players and successfully executed a live shipment from Singapore to Thailand during Q1 2023. This fully paperless, live cross-border trade involved the use of an ETR, that is functionally equivalent to a paper Bill of Lading (BL) using Singapore's TradeTrust[1] framework.

UOB

UOB leads IMDA's pilot on digitalising cross-border trade flows between Singapore and China using blockchain framework, TradeTrust

Successful pilot demonstrates significance of electronic bills of lading with turnaround time reduced from a few days to within an hour

ADGM AN INTERNATIONAL FINANCIAL CENTRE

World's first digital trade financing pilot between MLETR-harmonised jurisdictions

Port of Rotterdam Olam ONE OCEAN NETWORK EXPRESS

Singapore and Rotterdam successfully complete trial with electronic bill of lading

12 May 2021

Singapore and the Netherlands have collaborated since 2019 to explore electronic bills of lading (eBL) on the Europe-Far East trade lane where Singapore and Rotterdam are two major transhipment ports. This trial demonstrated that an eBL issued by one platform could be verified and processed by another digital trade platform.

Australian Border Force INFOCOMM MEDIA DEVELOPMENT AUTHORITY

Media release

This is a joint media release between the Australian Border Force, IMDA Singapore and Singapore Customs

Australia and Singapore's blockchain trial shows promising results for reducing transaction costs

Ministry of Communications and Information An Engaged and Connected Singapore

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Media Release

Four New MOUs Signed at the 2nd Singapore – China (Shenzhen) Smart City Initiative Joint Implementation Committee Meeting To Accelerate Digital Economy Collaborations

Three Successful Digital Cross-Border Trade Trials Completed: Businesses Will Be Able To Benefit from Faster and More Secured Transactions

BUSINSS SOLUTION PROVIDERS

ANGSANA TECHNOLOGY · banco · BUNKER CHAIN · CrimsonLogic Solutions. Simplified. A member of the PSA Group · DIMUTO · dlt ledgers · DOCKLAB · FUIX LABS. · GUUD BUY SHIP PAY · Jed

JUPYTON · Linklogis · MORPHEUS.NETWORK · Red Date Tech · sgtradex · Tradeco · TRAMES · veriTAG · XinFin (XDC) Network

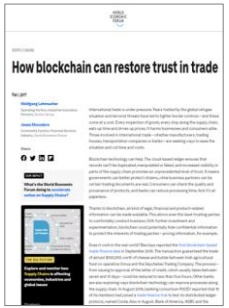
INTERESTED FROM NOTABLE INSTITUTIONS GLOBALLY



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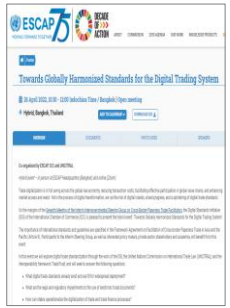
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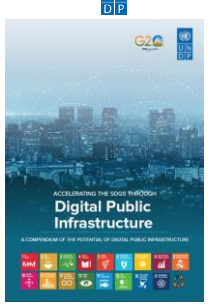
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INTERNATIONAL RECOGNITON OF TRADETRUST IS GROWING



July 2022
Publication of eData VC for Cross-Border Trade, with OA/TT listed as Recommended Solution



September 2022
Winner of United Nations ESCAP APTFF 2022 - Trade Facilitation Innovation Award



Jan 2023
OA (which TT is built upon) recognized as a Digital Public Good (DPG)*



March 2023
WSIS GovStack Digital Service Design Special Prize



September 2023
Publication of Transfer of MLETR – Compliant Titles



September 2023
Runner-Up for United Nations SDG Digital GameChangers Award 2023

TradeTrust has been featured by **international organisations** such as:

1) ICC and WTO: ICC DSI and WTO's Standards Toolkit for Paperless Trade.
2) WTO/WCO Report on Disruptive Technologies(2022)
3) WTO-WEF TradeTech Report (2022)

ICC
WORLD TRADE ORGANIZATION
WORLD CUSTOMS ORGANIZATION
WORLD ECONOMIC FORUM

*https://digitalpublicgoods.net/digital-public-goods/
DPG Alliance Board: UNDP, UNICEF, German Federal Ministry for Economic Cooperation and Development (BMZ), iSPIRIT, Norwegian Agency for Development Cooperation (Norad), Sierra Leone Directorate of Science, Technology and Innovation (DSTI)

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CALL TO ACTION

1) Use TradeTrust to co-create

If you're from:

a) Shipping lines
b) Shippers/Consignees
c) Logistics Service Providers
d) Financial Institutions providing Trade Financing Service
e) Govt Authorities involved in cross-border matters

2) Incorporate TradeTrust code into your Applications

If you're from:

a) Tech Companies
b) Business Solution/Platform Providers

Useful URLs:

Reference Implementation Website: https://tradetrust.io/
Docs: https://docs.tradetrust.io/
Source code: https://github.com/TradeTrust



For more info, contact us at: tradetrust@imda.gov.sg

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THANK YOU

