

Implementing Cross-border Paperless Trade and Emerging Technologies:

A Singaporean Experience

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Agenda

Case Study on electronic Certificate of Origin (eCO)

Case Study on electronic Bill of Lading (eBL)

Our mission is to

trade for good

We aim to

make global trade simpler, more efficient and more inclusive, so anyone and everyone can become a player in global trade





Case Study on Certificate of Origin





Modern technology integrated eCO



Blockchain technology prevents data reproduction of digital assets through a distributed shared ledger.



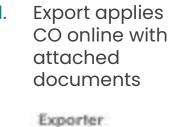
QR COCE technology. Enabling quick verification of authenticity of eCO without requiring importer/exporter to be present in person.

Being ubiquitous in our everyday life and is an effective and simple way to encode data creates easy adaption..



How eCO with Blockchain works

With Singapore International Chamber of Commerce (SICC)



3. A digital copy of the CO gets added to the blockchain

The importer and bank can verify the authenticity of the certificate via blockchain



2. Chamber approves and issue a CO where the exporter can print

4. The smart CO is propagated to all blockchain nodes

Fingerprint is added into the blockchain to mark utilization



Connected electronic Certificate of Origin

End-to-end digitalisation

Numerous platforms for issuing or processing CoO's already exist. The challenge is making the process end-to-end digital, across several existing platforms and initiatives (both cloud-based and blockchain-based)

Experience the benefits hands-on

Allow both economic operators and authorities to experience the benefits of an end-to-end digital process.

Proof of scalability

Not just a technology demo – but a "Proof of Business" to show it can scale and gain adoption. Including a suitable financial model.





Cross-border sharing of eCO between Singapore and Belgium (pilot)





Exporter applies for a CoO using DigiChambers 2.0 Recorded on blockchain













importer



Exporter ships to Singapore, and

digital CoO to the

transfers the

Recorded on

blockchain



Chambers of Commerce issues a digital CoO, DigiChambers submits the CoO to the blockchain network





Singapore



Importer receives the goods, and shares access to the digital CoO with Customs Registered on blockchain



Audits Verify on blockchain







Registered on blockchain

Logistics provider receives the digital format of the CoO that accompany the goods



Registered on blockchain

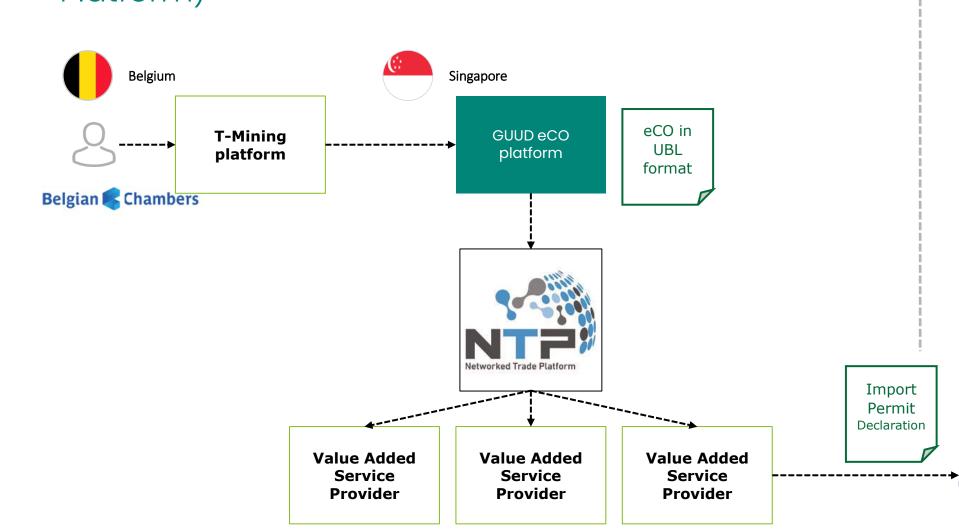
Customs Authority can verify the authenticity of the digital CoO







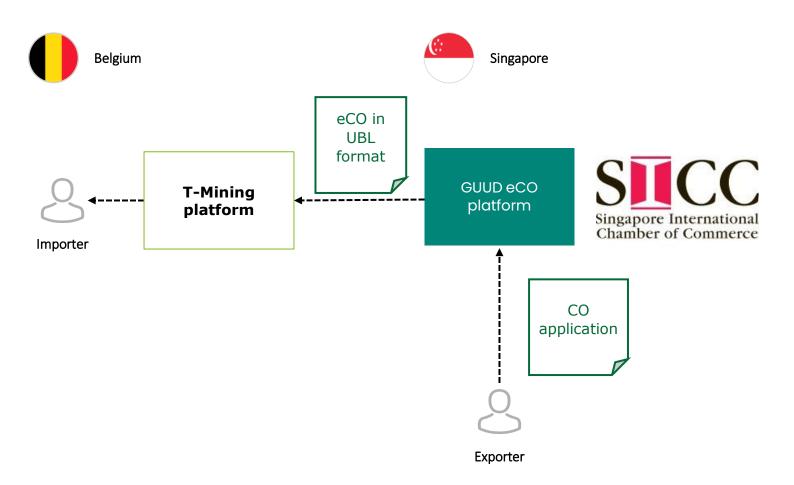
Inbound to Singapore (Singapore Custom's Networked Trade Platform)



The Networked Trade Platform (NTP) is a one-stop trade and logistic ecosystem which supports digitalisation efforts and connects players across the trade value chain – in Singapore and abroad. It aims to provide the foundation for Singapore to be a leading trade, supply chain and trade financing hub.



Outbound from Singapore (Singapore International Chamber of Commerce)



The Singapore International Chamber of Commerce (SICC) was founded in Singapore in 1837. It is a wholly independent, non-profit business association.

SICC began by standing up for Singapore as a business hub and for its members' business interests. This is still its mission today. SICC achieves its mission by understanding its members' business concerns. It advocates these to the government with the aims of achieving greater mutual understanding and practical solutions. This win-win approach benefits policymakers and the businesses which sustain Singapore's economy. SICC members include global corporations, large local companies as well as SMEs from 20 industries. The Chamber also works to facilitate international trade via its Certification Services.

Lessons Learnt #1 – Building a Consortium



Who are the right consortium partners

• Does your consortium represent the target market for the final solution? E.g. are small or less flexible market players also prsent in your consortium?

How do you get partners on board

• Can you make the onboarding of new partners "smooth"? e.g. allow them to start in a "cloud" environment to reduce IT setup costs.

Lessons Learnt #2 - Scaling Up













Before moving to production

- Are costs, benefits and incentives for participants clear?
- Do you really need blockchain for this case?
- · Can you accept that you are not the center of the world?
- · How will you handle interconnectivity with other cloud and blockchain based solution?

Before starting a pilot

- · Why are you conducting the pilot?
- How are you going to measure success?
- What will happen when the pilot is succesful?
- · Are you testing the technology, or trying to proof the business case?



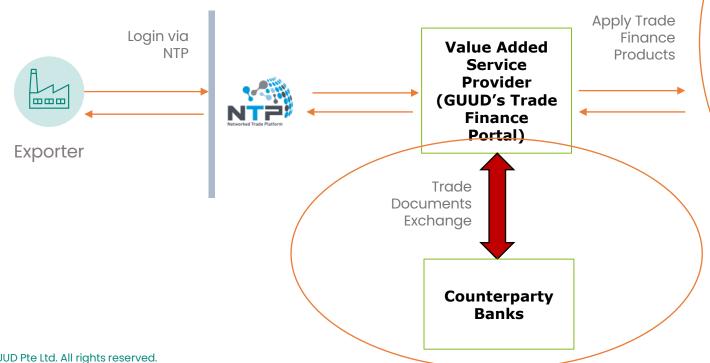
Case Study on Bill of Lading



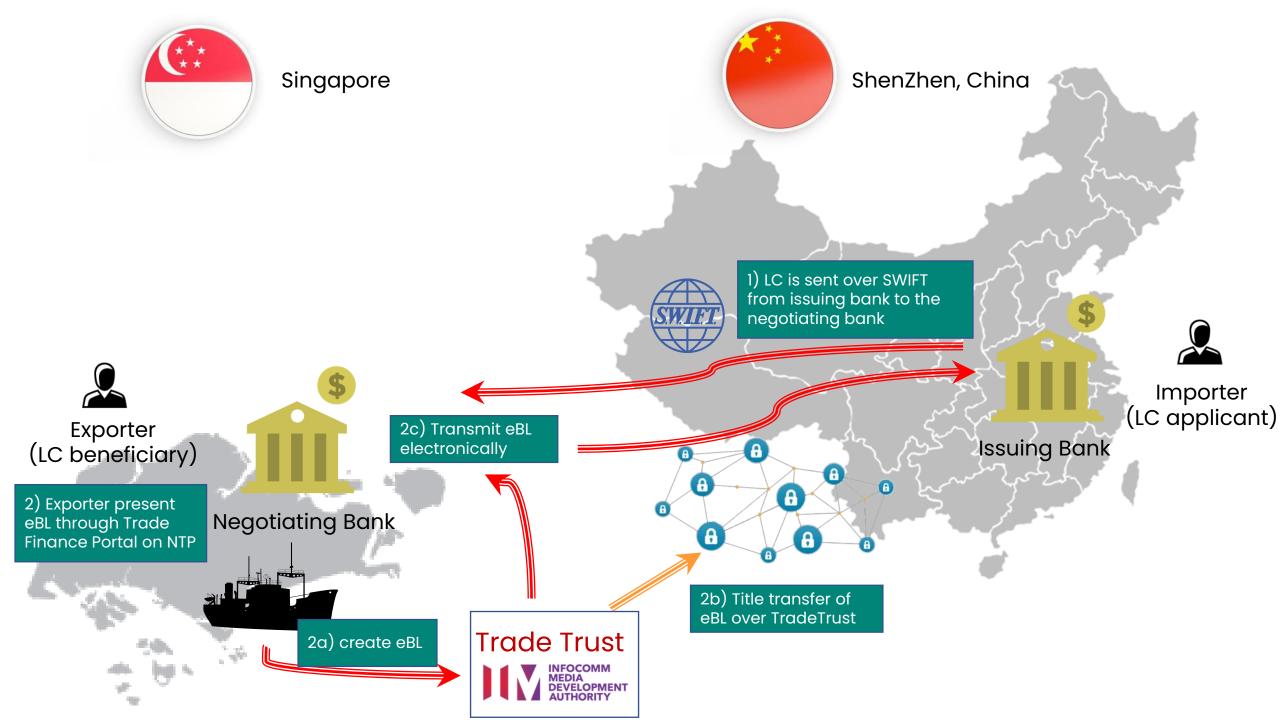


Multibank Trade Finance Portal on Singapore Custom's Networked Trade Platform

Simply log in to application via NTP's. VAS section and you will be able to make trade finance applications with our 10 bank partners seamlessly and digitally.







Singapore's Electronic Transactions Act amended

to provide legal validity to electronic Bills of Lading and other Electronic Transferable Records

••• By Infocomm Media Development Authority, and Maritime and Port Authority of Singapore

In March 2021, Singapore's Electronic Transactions Act (ETA) was amended to adopt the United Nations Commission on International Trade Law (UNCITRAL) Model Law on the Electronic Transferable Records (MLETR). The ETA facilitates the use of electronic transactions and e-commerce transactions by consumers and businesses. With the latest amendment, it enables the creation and use of transferable documents and instruments such as electronic bills of lading (eBLs) which are key documents for cross-border trade. This allows eBLs to be legally recognised as equivalent to paper Bills of Lading.

eBLs bring tangible benefits to supply chain players such as carriers, shippers, consignees, freight forwarders and trade financing banks. For example, faster transactions via digital transfer instead of physical delivery, cost savings from increased efficiency indocument processing, lower risk of demurrage and other cargo holding costs from delayed arrival of the bill of lading, and lowered fraud risks (through the use of digital authentication systems).

eBL TRIALS USING TRADETRUST

However, the lack of standards and interoperability of eBLs across different industry players in the ecosystem was one key challenge preventing widespread adoption of eBLs since its introduction in the 1990s. With the amendment of Singapore's ETA to accelerate Singapore's trade digitalisation effort, the Infocomm Media Development Authority (IMDA), the Maritime and Port Authority of Singapore (MPA), Singapore Customs and other agencies have brought industry partners together through trials as a step towards maritime trade digitalisation.

Interoperability across digital ecosystems is a key element made possible via the TradeTrust digital utility, that facilitates trusted exchange of trade documents across supply chains. The following are examples of eBL trials conducted in 2021:

1) Singapore-Rotterdam eBL Collaboration

In January this year, Singapore and Rotterdam, the two major transshipment ports along the Europe-Far East trade lane, completed a shipment using an eBL to shadow a live shipment. This shipment was carried out by Ocean Network Express (ONE), a Singapore-

headquartered container carrier, in collaboration

1 FASTER 2 LOWERED PROCESSING

WHY DO WE NEED eBLS?





- No additional costs to hold cargo as goods are less likely to arrive at their port of destination before document processing
- USS4 billion estimated savings a year if 50% of the container shipping industry adopts eBLs, according to Digital Container Shipping Association
- . Trade financing banks can obtain collateral security over the eBL, allowing them to obtain regulatory capital relief and pass on cost savings to clients





- comprises set of globally-accepted stands and frameworks · enables trusted interoperability of digital
 - provides proof of authenticity and provenance open-source software

Trial of digital verification ethods for electronic rtificates of Origin between

Figure 1: Infographics Source

Amendment of Singapore's ETA to adopt the United Nations Commission on International Trade Law (UNCITRAL) Model Law on the Electronic Transferable Records (MLETR).

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Currently, an ongoing pilot which aims to achieve mutual recognition of electronic trade documents for seamless crossborder trade between Singapore and China is being trialled. Participants in the trial will be able to use GUUD's Trade Finance (TFAP) portal made available via the Networked Trade Platform for trade financing and to perform transfer of ownership digitally on eBLs.

Thank you.

