

CALL FOR PROPOSAL – ELECTRONIC BILL OF LADING SOLUTIONS

Issued on 20 April 2021

Introduction and Objective

1 The Maritime and Port Authority of Singapore (MPA) is working with various agencies, industry associations and partners, both local and overseas, to accelerate adoption of electronic bills of lading (eBLs) for cross-border trade. This include the Infocomm Media Development Authority of Singapore (IMDA), Singapore Customs, Singapore Shipping Association and Digital Container Shipping Association (DCSA).

2 With legal and technology developments in the space of digital trade, MPA would like to invite industry to submit proposals for development, enhancement and pilot eBL solutions for cross-border trade.

Background

3 A Bill of Lading (BL) is a key legal document in maritime trade providing proof of ownership of goods in transit. Due to its nature as a document of title, the original physical copy(s) of BL is sent around, exchanging hands from carrier to shipper, to financier (as collateral), traded by third parties before finally reaching the buyer, where cargo is released after payment. This is inefficient as cargo collection may be delayed with additional cargo holding costs if the BL arrives later than the shipment. In addition, manual processing of BLs exposes one to human errors and fraud risks with potential financial losses. According to Maersk and IBM, documentation processing makes up ~20% of total shipping costs¹.

4 eBLs were introduced in the 1990s. It was projected to reap ~US\$4 billion savings annually if half of today's container shipping lines adopt such solutions². However, only 0.1% of bills of lading are issued electronically today, in limited or closed systems, with each guided by their own rules and standards. Among other factors, this is largely due to the lack of legal certainty as eBLs are not recognised by statutory law but by contract law among a group of contracting parties. In addition, it is challenging as BLs may differ in format and it passes through many different parties with varying IT system requirements.

5 To catalyse adoption and reap benefits of eBLs, Singapore has amended her Electronic Transactions Act (ETA) and adopted the Model Law on Electronic Transferable Records (MLETR) by the United Nations Commission on International Trade Law (UNCITRAL) to provide legal certainty to transactions involving electronic transferable title documents/instruments. In addition, the IMDA has launched TradeTrust, a digital utility comprising a set of globally accepted standards and framework to enable trusted interoperability of electronic documents, including eBLs that meets the requirements of the MLETR.

¹ <https://www.tradelens.com/post/what-does-a-digitized-supply-chain-look-like>

² <https://www.ledgerinsights.com/dcsa-electronic-bills-of-lading-shipping-standards-blockchain/>

Project Scope and Expected Deliverables

6 The project would cover the following areas and Applicants must clearly explain in their submissions what are they proposing for each of these areas:

- **Project Description:** Project plan with specific stages/milestones and their respective objectives (e.g. tabletop testing, parallel run of digital eBL with paper BL accompanying a live shipment with the eventual aim of fully digital and paperless live shipments). Proposals must provide clear plan and strategies for adoption or integration of eBL solution into industry consortia members' or potential customers' business operations for commercial application.
- **Commercial Use Case:** The project must **demonstrate transfers of title ownership of an eBL across various parties in the consortium and the shipment(s) must involve Singapore as an origin, discharge, transshipment port or where trade (offshore trade) is conducted in Singapore**
 - After each demonstration, Applicant must submit a report to quantify total value created and how it is distributed across to the different industry consortia member and other non-consortia member if they are included in the demonstration. This include both tangible as well as intangible benefits (e.g. time savings, manpower savings, greater visibility through track and trace, lower fraud risk or costs to rectify human errors etc.).
 - Applicant should also provide a breakdown of the cost involved for the various industry consortia members (e.g. initial set-up versus longer-term running costs) as part of the adoption or integration into industry consortia members' business operations.
 - Applicant should also provide a risk assessment and mitigation plan that illustrates possible risks at different stages and how they can be mitigated.
- **Technology Feasibility:** The eBL solution developed **must meet at least one of the following criteria: (a) achieve title transfer interoperability across different digital ecosystems, (b) comply to UNCITRAL MLETR and leverage on legislative framework(s) of jurisdiction(s) that have adopted MLETR, (c) adopt industry standards where applicable.**
 - (a) For interoperability requirement, Applicant may choose to adopt TradeTrust or other frameworks insofar as these other frameworks facilitate the title transfer interoperability of eBLs across different digital ecosystems. See **Annex A** for information on TradeTrust;
 - (b) For requirements under UNCITRAL MLETR, refer to **Annex B** for more information;
 - (c) For industry standards, Applicant must indicate the relevant Standards that they are adopting for their eBL solution (e.g. ISO, UN CEFAC, etc. For container shipping, see **Annex C** for information on DCSA's standards on data and process related to BL preparation and issuance in container shipping

7 The project duration should not be more than 12 months to achieve the eventual aim of conducting fully digital and paperless live Applicant will be required to present the progress update and submit a progress report every six (6) months. This project will be assessed by a joint project review team comprising industry experts appointed by MPA, IMDA and DCSA.

Eligibility Requirement

8 Applicant could be, but not limited to a technology solution developer developing eBL solutions or supply chain player (e.g. carrier, shipper, trader, financier, consignee) adopting such solutions, developed in-house or by third-party providers.

9 Each industry consortia should minimally comprise a carrier, shipper/trader and consignee. Proposals that involve financiers (e.g. banks) to prove eBLs being used as a financing use case will be assessed more favourably.

10 The Applicant must have a legal entity and presence in Singapore. If the Applicant is not a supply chain player (i.e. not a carrier, shipper, trader, financier, consignee), the company needs to secure letter(s) of intent from supply chain players to trial and adopt the solution. Proposal should include company profiles and participating personnel from all entities in the industry consortia, including their involvement and contribution. All work should be conducted in Singapore to qualify for funding support.

Evaluation Criteria and Funding Support

11 All applications will be evaluated based on the following criteria:

- Relevance and impact to the maritime industry
- Innovation and differentiation
- Capability development in Singapore
- Local value capture
- Organisation and team competency

12 Selected projects may be eligible for up to 70% of project grant for qualifying items. In the event that there are multiple applications that meets the eligibility criteria and are of similar nature of development, MPA reserves the right to award funding to projects that are most impactful to Singapore based on the above listed evaluation criteria.

Timeline

13 The timeline for this Call-for-Proposal will follow as per below:

Issue Call-for-Proposal	20 April 2021
Virtual Briefing and Clarification Sessions for Interested Applicants	To facilitate robust discussion, interested applicants can send in questions ahead of the sessions by 5 May 2021. These questions will be compiled and answered at the following virtual sessions: 11 May 2021, 1500 to 1700 hours (GMT+8) 14 May 2021, 1000 to 1200 hours (GMT+8)

	The documented Q&A will also be shared on the Call-for-Proposal for eBL webpage under MPA's corporate website after the sessions.
Submission Deadline	Interested applicants shall submit the completed proposals using MPA's MINT Fund Application Form to mint@mpa.gov.sg before 31 July 2021, 1800 hours (GMT+8)
Proposal Evaluation and Award	<p>Proposals will be evaluated by MPA and relevant agencies and industry associations based on the proposed scope.</p> <p>The panel may seek additional information to elaborate or clarify areas described in the proposal during the review process. Shortlisted applicants will be notified in August/September 2021 and awarded by 30 October 2021.</p>

Contact Details

14 Please direct any queries to:

<p>Ms Loh Sin Yee Senior Manager (Maritime Technology Capability) Innovation, Technology and Talent Development Division Email: Loh_sin_yee@mpa.gov.sg</p>
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Annex A – TradeTrust

1 IMDA, in collaboration with various domestic and international agencies, and industry partners, is spearheading the implementation of TradeTrust. TradeTrust is a digital utility that comprises a set of globally accepted standards and frameworks, providing proof of authenticity of documents and also offers title transfer through open source software.

2 TradeTrust enables the trusted interoperability of digital trade documents, including that for different eBL solutions, which will accelerate the digitalisation of global trade and enable wider adoption of eBLs. Please refer to the following links for details:

- [TradeTrust - Introduction](#)
- [Technical Overview](#)

Annex B – United Nations Commission on International Trade Law, Model Law on Electronic Transferable Records (UNCITRAL MLETR)

3 Singapore is among the first major shipping and trading hubs to enact a legislative framework for electronic transferable records (e.g. eBLs). The Electronic Transactions Act (ETA) was amended on 19 March 2021 with consequential amendments to the Bills of Lading Act and the Contracts (Rights of Third Parties) Act. This was done via the adoption of the Model Law on Electronic Transferable Records that was adopted by the UN Commission on International Trade and Law (UNCITRAL) in 2017.

4 Please refer to the following links for details:

- [Singapore’s Electronic Transactions Act](#)
- [UNCITRAL MLETR](#)

Annex C – Summary of DCSA¹ standards on data and process related to bill of lading preparation and issuance in container shipping

5 DCSA, in conjunction with its member carriers, has published data and process standards for the submission of shipping instructions and issuance of the bill of lading. This include end-to-end documentation process mapping, bill of lading data fields and definitions and an information model to support a shared understanding of data concepts and rules within the container shipping industry. The standards are aligned with the UN Centre for Trade Facilitation and Electronic Business (UN/CEFACT) multimodal transport reference data model.

6 Please refer to the following [link](#) for details.