

MPA-Port of Rotterdam GDSC Call for Proposals

Call for Proposals for Global Solutions to Facilitate Data Exchange between Ship and Shore for Green and Digital Shipping Corridors (GDSCs)

Background

1. As part of Resolution MEPC.323(74) adopted by IMO Member States on 17 May 2019, IMO Member States agreed that there was a need to encourage further cooperation between ports and shipping to facilitate the reduction of greenhouse gas (GHG) emissions from ships. Member States were invited to support the industry's collective efforts to improve the quality and availability of data and develop global digital data standards that would allow reliable and efficient data exchange between ship and shore to optimise voyages and port calls, and facilitate just-in-time arrival of ships.
2. MPA and the Port Of Rotterdam (POR) intend to present an information paper at IMO FAL Committee, demonstrating the shore-shore and ship-shore exchange of operational, administrative, and nautical data based on global standards. Both non-technical and technical standards have been used to build APIs in the Port of Singapore and the POR Port of Rotterdam to kickstart the industry's collective efforts. More information on the data exchange can be found in the table below:

| Data Type | Specifications | Data Elements |
|----------------|--|--|
| Administrative | Elements required for IMO FAL 1 Based on ISO28005 standards | General Declaration for port arrivals, for port clearance by port authorities |
| Operational | Based on ISO28005 standards | ETD, PTD, ATD (Port 1) ETA, PTA, ATA (Port 2) |
| Nautical | Based on S-57 standards Follows IHO Guidelines | Identification and position of terminals, berths, berth positions, and maintained depths |

Table 1: Data exchange between MPA and POR (Shore – Shore)

Objective

3. The MPA-POR Green and Digital Shipping Corridor (GDSC) aims to accelerate the adoption of global standards and solutions to facilitate efficient port calls, flow of goods and paperless handling. MPA, in collaboration with POR, is launching an open Call for Proposals (“CFP”) to **demonstrate standards-based solutions that enable efficient and secure data exchange between ship and shore for GDSCs**. This call is consistent with IMO strategic direction 5 which seeks to ensure that data can be exchanged securely in a universally acceptable form and is verifiable.

Development Areas/Scope

4. MPA invites committed solution providers and maritime companies to submit proposals for the trial of global solutions that facilitate both:

A: Operational data Ship-Shore data exchange; and

B: Administrative data Ship-Shore data exchange

More details on the technical specifications can be found in Annex A and Annex B.

5. Applicants submitting proposals for global solutions for data exchanges have the option to additionally propose a digital ship identity solution to enhance the security of the data exchanges. An example of a ship digital identity authentication process is set out in Annex C for reference.

6. Digital identity providers may also participate in this CFP by submitting a proposal for either or both of the solutions described in clauses 4 and 5. Opportunities will be provided for shortlisted digital identity providers to showcase their solutions and explore trials with shortlisted solution developers in Singapore and/or Rotterdam, as MPA and POR may in their discretion determine.

MPA-POR Digital Corridor Industry Engagement Session

7. MPA & POR will be conducting an Industry Engagement Session on 18 April 2024 as part of the Singapore Maritime Week 2024 programme and parties who are interested in submitting a proposal are encouraged to participate. Participation at the Industry Engagement Session is by RSVP only. Further details of the Industry Engagement Session are set out in the table titled “Key Information and Timelines” below.

Proposal Requirements

8. Proposals for data exchange solutions must include the process and methods of data exchange, methods to quantify/measure the value/benefit, proposed collaborators and test-bedding partners, data sources, and a rollout plan.
9. All proposed solution(s) must align with international data standards to ensure consistency and interoperability, enabling wider adoption by the maritime industry.
10. All proposed solution(s) must also comply with all applicable legislation and regulations.
11. All proposals shall be received by MPA in the manner and by the time specified in the table titled “Key Information and Timelines” below. Proposals which are not submitted in accordance with these requirements will not be considered.
12. Proposals submitted must have a validity period of one year from the Submission Deadline or such longer period as may be separately agreed to in writing between the applicant and MPA.

Evaluation Criteria

13. Proposals received shall be evaluated in line with the following criteria:

| Category | Key Criteria | Sub Criteria | Elaboration |
|----------------------|---|--|--|
| Technical | Security | Authentication | Authentication solution (leveraging digital identity, OAuth, API key etc.) for the ships to be included. |
| | | Data exchange security | Relevant data security mechanisms. |
| | Data & Process | Data sources | Provide the expected sources of data listed in Annex A and Annex B. |
| | | Data flow process | Diagrammatic illustration of the data flow processes and linkages between involved various stakeholders. |
| Technology | | To present the technology used in the proposed solution for ship-to-shore data management and its alignment with industry best practices | |
| Value Quantification | Metrics | | Metrics that highlight the value add/benefits that can be measured to be included. |
| | Methodologies and quantification of metrics | | Methodologies that can reliably quantify the metrics proposed to be suggested. |

| Category | Key Criteria | Sub Criteria | Elaboration |
|-------------------------------|---|--------------|--|
| Capability | Organisation info, and Project Team Composition | - | Background and experience of the team member(s) who will be committed to the pilot to be included. |
| | Product track records | - | Relevant related projects. * While past projects serve as valuable references, we also welcome and encourage innovative approaches and solutions that may differ from previous implementations. |
| | Customer track records | - | Relevant customers and ships. |
| Proposed Collaborators | Industry Collaborators | - | Maritime stakeholders engaged and their specific role(s) in the project. |
| Planning | Work Packages | - | Clear breakdown of the location, estimates for man-hours and/or other resources required, and deliverables for each work package. |
| | Project timeline and Test-bedding milestones | - | Project timeline and significant milestones for demonstration and test-bedding phase clearly illustrated (e.g., using a Gantt chart). |
| | Roll out plan after successful pilot | - | Timeline illustrating time and resource allocation required for future expansion and deployment plan (e.g., using a Gantt chart). |
| Risk Assessment | Risk Assessment | - | Possible risks to the project and mitigation measures. |

14. The evaluation of the proposals received shall be carried out jointly by the MPA and POR GDSC Programme Offices.

Outcome of Evaluation

16. Successful applicants will, at the discretion of MPA and POR, be given the opportunity to demonstrate their solution to the Singapore and Rotterdam port authorities, MPA's and POR's GDSC partners and maritime industry, and be shortlisted by the port authorities as a recognised/compatible solution for efficient and secure ship-shore data exchange. MPA and POR's decision on the CFP is final.

17. Nothing in this CFP shall be construed as amounting to any representation or warranty that MPA and/or POR will necessarily shortlist any applicant or any number of applicants, provide any shortlisted applicant the opportunity to demonstrate their solution to any specific party, provide any specific form of support for the trials, or provide any shortlisted applicant the opportunity to be profiled at any specific fora.

18. MPA and/or POR may accept the whole or any part(s) of the proposals as they may decide, unless the applicant expressly provides in its proposal that certain parts of the proposal are to be treated as indivisible.

19. Neither MPA nor POR shall not be liable for any costs, expenses, loss of profit, indirect or consequential losses associated with or arising out of any party's participation or intended participation in this CFP.

Queries and Requests

20. Any questions and requests for clarification, including any request for an extension of time for the submission of proposals, must be submitted to MPA at gdsc@mpa.gov.sg at least seven (7) working days before the Submission Deadline.

Confidentiality, Intellectual Property Rights, Data Governance

21. All parties hold and retain the ownership of their data, Confidential Information and related intellectual property rights. Nothing in this CFP may be interpreted as a license to use or transfer, or an obligation to enter into any further agreement with respect to any data, Confidential Information and related intellectual property currently licensed to or owned by any party.
22. All applicants who submit proposal(s) pursuant to this CFP shall be deemed to have given consent to MPA to disclose to POR such proposal(s), along with any supporting data, documentation, information, and clarifications provided, and to MPA and POR to disclose the same to such other parties as MPA and POR in their respective discretions consider to be necessary in connection with this CFP.

Law and Jurisdiction

23. This CFP and all proposals submitted pursuant to this CFP shall be governed by the laws of Singapore.
24. Any disputes and claims arising out of this CFP shall be referred to mediation at the Singapore Mediation Centre in accordance with the Mediation Procedure in force at the time of the referral.
25. If and to the extent that any such dispute or claim cannot be resolved by mediation within six (6) months of the commencement of the mediation or such other time as may be mutually agreed between the parties, the parties concerned agree that the dispute shall be referred to and finally resolved by arbitration in Singapore in accordance with the Rules of the Singapore Chamber of Maritime Arbitration for the time being in force, which Rules are deemed to be incorporated by reference in this Clause. The Tribunal shall consist of a single arbitrator. The language of the arbitration shall be English. Any award made thereunder shall be final and binding upon the parties concerned and judgment on such award may be entered in any court or tribunal having jurisdiction thereof.

Key Information and Timelines

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|--------------------------------------|--|
| Industry Engagement Session | <p>The Industry Engagement Session requires registration. The objectives of the workshop are:</p> <ul style="list-style-type: none">For tech solution developersClarify CFP detailsGather feedback for ship-shore data exchange processAffirm participationFor end usersSecure interest to trial solutions with their chosen solution developersDiscuss ways to measure and validate the value propositions <p>Please write in to gdsc@mpa.gov.sg by 12 Apr 2024 to RSVP and state:</p> <ul style="list-style-type: none">OrganisationAttendees/RepresentativesPurpose of attendingQuestions <p>Industry Briefing is planned on 18 April (Thu) 2-4pm, @SMW 2024.</p> |
| Submission Deadline | Interested applicants must submit their proposals to MPA at gdsc@mpa.gov.sg by 14 June 2024, Singapore Time (“Submission Deadline”). |
| Proposal Evaluation and Shortlisting | <p>Proposals will be evaluated by the GDSC Programme Office.</p> <p>The GDSC Programme Office may seek additional information or clarification on the</p> |

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| | proposals during the evaluation stage. Shortlisted applicants will be notified around June/July 2024. |
| Conduct of Trials | Shortlisted applicants are expected to be ready to commence the trials in the second half of 2024 and provide regular updates on the progress and proposed deliverables. |