



**PREPARATORY COMMISSION FOR THE
ESTABLISHMENT OF THE INTERNATIONAL REGISTRY
FOR MAC EQUIPMENT PURSUANT TO THE MAC
PROTOCOL**

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ISSUES PAPER

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Introduction

1. Chapter IV (Articles 16 and 17) of the Convention on International Interests in Mobile Equipment (hereinafter the 'Cape Town Convention') and Article XIV of the Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Mining, Agricultural and Construction Equipment (hereinafter the 'MAC Protocol') provide for the establishment of an International Registry and appointment of the Registrar.
2. The Diplomatic Conference for the Adoption of the MAC Protocol, in Resolution 1, established a Preparatory Commission, inter alia, to ensure that the international registration system be set up in accordance with an objective, transparent and fair selection process.
3. The Registrar Working Group was established by the MAC Protocol Preparatory Commission at its first session (hereafter "PC1") under Rule 6 of the Rules of Procedure. The first session of the Registrar Working Group took place on 4 November 2020 and reached several policy consensuses regarding the different options for drafting the Request for Proposals (RFP) for the appointment of a registrar.
4. Following this, with support from the members of the Working Group, the Secretariat sought feedback on the draft RFP from technical and procurement experts. This Issues Paper summarises the outcomes of the Working Group's first session and outlines how the decisions adopted have been inserted into the draft RFP. It also presents the input received during intersessional work.
5. The draft RFP, with tracked changes from the Working Group's first session, can be found at MACPC - Registrar W.G.2 - Doc. 3 - Draft request for proposals (RFP).
6. It is anticipated that two more meetings of Working Group will be organised prior to the third session of the Preparatory Commission (3-4 June 2021) to finalise the draft Request for Proposals. In comparison to the Preparatory Commission, the Working Group will operate on a relatively informal basis to allow for open discussion in resolving the various policy issues.
7. The purpose of this paper is to provide the Registrar Working Group with an initial list of issues for discussion. This issues paper is not intended to provide an exhaustive list of issues. Working Group members are encouraged to raise any additional issues related to the MAC Protocol RFP during the session.
8. This paper presents three categories of issues:
 - (a) Issues relating to the substantive content of the RFP.
 - (b) Issues relating to the technical content of the RFP.
 - (c) Issues relating to the process of issuing the RFP.
9. This Paper is accompanied by the following documents:
 - (a) Document 3 – Preliminary Draft RFP for the MAC Registry
 - (b) Annex A – Research on international best practices in tendering and procurement
 - (c) Annex B – Research memo on API liability under the Cape Town Convention
10. The Preliminary Draft RFP prepared by the Secretariat for consideration by the Working Group has been modelled after the RFPs issued for the Aircraft Protocol and the Luxembourg Rail Protocol.

I. ISSUES RELATING TO THE SUBSTANTIVE CONTENT OF THE RFP

11. The Draft RFP is divided into 5 parts and 6 annexes, and 3 appendices:
- (a) PART 1 – Introduction
 - (b) PART 2 – Technical Requirements
 - (c) PART 3 – Cost Specifications
 - (d) PART 4 – Information about key contract provisions
 - (e) PART 5 – Practical information about the solicitation process
 - (f) Annex 1 – Information relating to the background of the International Registry
 - (g) Annex 2 – Relevant provisions of the Convention and the MAC Protocol
 - (h) Annex 3 – Statement of Requirements for the International Registry
 - (i) Annex 4 – Illustrative model of a possible layout of an international registry registration form
 - (j) Annex 5 – Draft MAC Registry Regulations
 - (k) Annex 6 – Paper on Best Practices to be followed in the Design and Operation of an International Collateral Registry
 - (l) Appendix A – Documents and declarations relating to the identification of the Tenderer
 - (m) Appendix B – Documents relating to the financial and economic capacity of the Tenderer
 - (n) Appendix C – Declaration of honour on exclusion criteria and absence of conflicts of interest
12. This section of the Issues Paper identifies a non-exhaustive list of substantive items which the Working Group should deliberate.

A. General Approach to drafting the RFP

13. After the first session of the Working Group, the Secretariat reached out to technical and procurement experts to get feedback and input on the draft RFP. One expert noted:

“The overarching impression of this RFP would be that it risks not getting proposals for optimal solutions using current and emerging technology as it appears to be based substantially on older, dated RFPs. Better results are likely if some of the prescriptive requirements are replaced with functional objectives and requirements. [it would be useful to] Tell the tenderers what the resulting system is required to achieve and function, rather than telling them exactly how to do it. [it would be useful to] Let the market respond with current best practices and innovations, rather than being constrained by dated approaches.”

14. This feedback for adopting a functional approach was consistent with feedback received from other experts, as well as the feedback received at the second session of the MAC Preparatory Commission. As such, the Secretariat has made efforts to make the RFP more functional. This is primarily achieved through the inclusion of a new Annex 3 to the RFP relating to functional requirements for the International Registry. The Working Group is invited to give comments on Annex 3 of the draft RFP

15. One specific issue in this regard is as follows is found in Paragraph 58 of the RFP relating to **FAQs**. On this, a technical expert noted:

“The FAQ approach may not be the optimal approach to web design of an application such as the registry. If the application is designed with a user-centered approach, it should be

intuitive and easy to use. FAQs do not generally add value in these scenarios, and can cause confusion. It can be difficult to keep FAQs up to date with changes in the application. Here are some thoughts from reputable web designers, including the UK government digital team indicating that FAQs are not advised:

<https://gds.blog.gov.uk/2013/07/25/faqs-why-we-dont-have-them/>
<https://thegood.com/insights/faq-pages/>
<https://alistapart.com/article/no-more-faqs-create-purposeful-information-for-a-more-effective-user-experi/>

Instead of referencing FAQs in the tender, it may be preferable to restate the requirement to set out the functional objective, along the lines that the application will present users with the information required to complete their tasks in an easily readable format.”

16. The Working Group is invited to comment on the suitability of retaining a requirement for FAQs in the draft RFP, or to replace the same with a paragraph stating the functional equivalent.

B. Nature of the registrar’s activities

17. Article XVIII (2) of the MAC Protocol follows a similar approach to that taken by the Aircraft Protocol in Article XX(3) and the Space Protocol in Article XXXII(4) when dealing with fees which the International Registry may collect for its services. This allows for the fees to be determined so as to recover:

(a) *the reasonable costs of establishing, operating and regulating the International Registry, and the reasonable costs of the Supervisory Authority associated with the performance of the functions, exercise of the powers and discharge of the duties contemplated by Article 17(2) of the Convention; and*

(b) *the reasonable costs of the Depositary associated with the performance of the functions, exercise of the powers and discharge of the duties contemplated by Article 62(2)(c) of the Convention and Article XXXVII(2)(c) to (f) of this Protocol.*

18. This approach is different from the Luxembourg Rail Protocol which has an additional sentence in this provision noting: *‘Nothing in this paragraph shall preclude the Registrar from operating for a reasonable profit.’* The RFP published for the Luxembourg Rail Protocol foresaw the possibility of the Registrar taking part in ancillary activities to generate revenue and compensate for the costs of initial development and design. Such ancillary services would require the approval of the Supervisory Authority, and it was noted that the Supervisory Authority would look favourably upon the idea. A similar model was discussed during the meetings of the Space Preparatory Commission.

19. With regard to the International Registry for the Aircraft Protocol, a two-tier model is followed whereby the International Registry itself is established as a not-for-profit entity, keeping in mind Article XX(3) of the Aircraft Protocol, whereas the company which manages the International Registry (Aviareto) may engage in ancillary activities following approvals for those activities by the Supervisory Authority.

20. At its first session, the Working Group agreed that innovation should not be stifled insofar as the breadth of activities that the registry would be allowed to conduct. It was also agreed that specific portions of the collected revenue from any such ancillary activities should go towards the establishment, operation and enhancement/development of the registry, in order to lower access costs of the registry for users. It was agreed that the language should be expanded to provide that any favourable treatment insofar as ancillary activities were concerned should consider the integrity of the system as a whole and that such ancillary activities may not intrude with or compromise the primary activities of the registrar. It was also agreed that language in Paragraph 107 of the Draft RFP should be further expanded to mention legal or arbitration (or other dispute settlement

mechanism) services, or advisory services, as specific examples of services whose provision should not be allowed in order to protect the integrity of the system.

21. To this end, additional language has been added in Paragraphs 16, 107, and 108 of the draft RFP. The Working Group is invited to consider the appropriateness of this language. The Working Group is also invited to consider the appropriateness of the Paragraph 109.

22. The Registrar Working Group requested the Secretariat to prepare some background research on the reasoning behind the not-for-profit nature of the International Registry, and the two-tier structure adopted by Aviareto and the International Registry. In this regard, it is noted that at the time of the drafting of the Cape Town Convention and its Aircraft Protocol, the Drafting Committee noted that the question whether the Registrar shall operate as a non-profit-making entity is a policy question which needed to be determined separately for each category of equipment and accordingly left to the Protocols.¹ Nothing in the MAC Protocol precludes the Registrar from being a profit-making entity in all functions other than its core activities, for which it is only allowed to operate on a cost recovery basis.

23. Following the second session of the Working Group, the Secretariat will engage with Aviareto to get additional information on this matter.

C. Promotion and Industry Support

24. The registrar for the MAC Protocol will play an important role in promoting the treaty. Paragraph 25 of the Draft RFP should indicate an amount of expenditure which the registrar must allocate annually to costs relating to the promotion of the MAC Protocol. The RFP issued for the Luxembourg Rail Protocol specified an amount of €25,000 per year (see paragraph 19 of RFP for Luxembourg Rail Protocol).

25. At the Working Group's first session, there was agreement on the importance of the registrar participating in promotional activities. It was agreed to postpone the discussion on a specific amount to be allocated to promotion to later point, and to keep €25,000 in square brackets. The Working Group may consider this issue further at its second session.

D. Indication of volume of work

26. In order to allow prospective registrars to have an understanding of the capacity they need to develop, the MAC RFP must specify an expected number of individual transactions each year (see paragraph 28 of the Draft MAC RFP). For this, a capacity assessment must be undertaken.

27. For this provision, the RFP issued for the Luxembourg Rail Protocol simply referred to 'many thousands of assets', whereas the RFP for the Aircraft Protocol did not consider this issue.

28. This estimation of expected volume also guides the storage capacity a prospective registrar must make available (see Paragraph 68 of the Draft MAC RFP). The RFP issued for the Luxembourg Rail Protocol notes that the registrar must have storage capacity to store up to 200,000 individual registry transactions each year (see paragraph 56 of the RFP for the Luxembourg Rail Protocol).

29. At the Working Group's first session, it was agreed that the RFP should be drafted in a manner which ensured that bidders maintained flexibility, and had the capability to escalate/deescalate their capacity should the MAC Protocol generate more/less than the baseline number of transactions

¹ UNIDROIT Committee of Governmental Experts for the preparation of a draft Convention on International Interests in Mobile Equipment and a draft Protocol thereto on Matters specific to Aircraft Equipment, Third Joint Session (Rome, 20 – 31 March 2000) Report UNIDROIT CGE/Int.Int./3-Report, p xv.

stipulated. A technical expert has noted that it may also be important to quantify the expected level of search activity, as this would drive requirements around system capacity.

30. The Working Group requested the Secretariat to conduct additional research into estimating a baseline volume of transactions all bidders should be expected to account for, based on other RFP documents, as well as the economic assessment for the MAC Protocol. The Secretariat shall report back on this research at the third session of the Working Group.

E. Technological compatibility

31. The Draft MAC RFP notes in paragraph 30 and paragraph 82 that the website for the registry must be accessible from web browsers released in the past two years. This follows the model of both, the RFP for the Luxembourg Rail Protocol and the RFP for the Aircraft Protocol. However, both these sectors largely consist of registry users with a high level of technical sophistication. Noting the different nature of users on the MAC registry, the Working Group may consider obligating the registrar to ensure backwards compatibility for a larger number of years with regard to web browsers in order to ensure users of all levels of technical sophistication are able to access the registry.

32. At its first session, the Working Group agreed on the importance of compatibility with a large number of commonly used browsers for the future MAC registry. The Registrar Working Group also agreed on the importance of ensuring that the MAC registry could be accessed using a mobile phone. As such, changes have been made to reflect this in Paragraphs 30 and 82. The Working Group is invited to consider the appropriateness of these changes.

33. At its first session, the Working Group also agreed on the usefulness of Application Programme Interfaces, as well as intermediaries in general in facilitating access to the MAC registry to a wide variety of users. The Working Group requested the Secretariat to further examine the liability regime pertaining to registrations and other access to the register through intermediaries and through third party APIs under the Cape Town Convention and under other jurisdictions. A short memo on this matter can be found in Annex B of this Issues Paper.

34. The Working Group is invited to deliberate further whether API compatibility should be required of a Registrar in the draft RFP.

F. Languages

35. Paragraph 57 of the Draft RFP relates to the languages which the International Registry must be available in. This follows similar drafting from the RFP for the Luxembourg Rail Protocol. However, noting the different nature of users in MAC industries, the Working Group may give additional consideration to the provision of registry services in additional languages from the onset.

36. During its first session, the Working Group considered three different types of elements which a registrar would have to deliver insofar as multiple languages were concerned: i) helpdesk; ii) the registry website; and iii) the information which users would submit to search and register in the registry. It was noted that the first two items were largely service related, and could easily, and at a low cost, be provided in several languages. The Working Group agreed that these two items should be clearly separated in the RFP and the obligations upon the bidders to provide multilingual functionality should be limited to these two items at this stage. With regard to the third item, considering the legal significance of such information, it was agreed that no translation should be available. It was noted that national entry points could assist in providing language services to users. API channels could also act as facilitators in this regard. It was also agreed that the Registry should be able to accept registration information in any language which the user may wish to provide, including the use of diacritical marks. Furthermore, it was agreed that the fields requesting information from users should be available in different languages.

37. Paragraph 57 of the draft RFP has been amended to reflect these decisions. The Working Group is invited to consider its appropriateness.

G. Currency of the operation + currency of indicated costs

38. The Working Group should give consideration to the currency which should be used by the registry in collecting its fees (see paragraph 74 of the Draft MAC RFP). Additionally, the Working Group should give consideration to the currency in which bidders should present their cost specification in (see Paragraph 102 of the Draft MAC RFP).

39. With regard to fees, the RFP published for the Aircraft Protocol allowed bidders to use the currency of the country in which they were based, whereas the RFP published for the Luxembourg Rail Protocol obliged bidders to use the Euro as its currency, noting that the registry had to be hosted in Luxembourg.

40. At its first session, the Working Group agreed that bidders should be allowed to indicate the currency in which they would collect fees, noting that it would be in the interest of the registrar to facilitate transactions, rather than disincentivise them. An expert noted that it would also be useful for bidders to indicate the payment options they would be willing to provide. As such, Paragraph 74 of the draft RFP has been amended. The Working Group is invited to consider its appropriateness.

41. At its first session, the Working Group decided to postpone the discussion on which currency bidders would have to submit their proposals in to the second session. The Working Group may discuss this further.

H. Governing law of contract with registrar

42. A policy decision needs to be reached by the Working Group on the law which will govern the contract between the Supervisory Authority and the Registrar. In determining this, factors such as the seat of the Supervisory Authority and the location of the successful registrar might need to be considered. This is addressed in Paragraph 123 of the Draft MAC RFP.⁴

43. The written comments by participants of the Working Group at the end of the first session indicated a general preference to postpone the discussion of selecting a governing law for the contract between the registrar and the Supervisory Authority to a later time when a Supervisory Authority was appointed.

I. Data Protection and Privacy

44. The RFP documents for the Aircraft Protocol and the Luxembourg Rail Protocol did not include any provisions on data protection and privacy. The Draft MAC RFP had addressed this concern in Paragraph 91 by noting that 'The system shall be in compliance with relevant data protection and privacy related laws and regulations.' The following is a preliminary list of areas where data protection might be a relevant consideration within the RFP:

- a. With regard to personal data collected at the time of registration
- b. Paragraph 68 regarding storing historical data indefinitely
- c. Paragraph 70 regarding the location of the Registry, given that the location of the Registry would automatically create issues of international transfer of personal data

45. Several participants of the Working Group indicated that the provisions in Paragraph 91 of the draft RFP are not sufficient. It was proposed that this issue should be explored further at the

next meeting of the Working Group, in order to clarify to what extent the register involves personal data (such as for user accounts) or data referring to corporate entities (which might be subject to different standards of privacy and data protection).

J. Intellectual Property

46. Paragraph 69 and Paragraph 122 of the draft RFP refer to intellectual property relating to domain names, logos, etc. Additionally, Article 17(4) of the Cape Town Convention states: "*The Supervisory Authority shall own all proprietary rights in the data bases and archives of the International Registry.*"

47. Regarding this, an expert stated that:

"It may be helpful to clarify the ownership of intellectual property of the software developed for the Registry. If ownership of software is not retained by the Supervisory Authority, some contingency plans may be required to cover a situation where the Registrar body ceases to exist for whatever reason, to ensure that the Supervisory Authority has the option to reassign a new contract to a new Registrar, without having to incur costs of software development again."

48. In light of this, the Working Group may consider whether the draft RFP and the contract between the Registrar and the Supervisory Authority should contain provisions to allow the Supervisory Authority to retain the intellectual property rights of the software used to run the International Registry.

K. Matters in the RFP dependent upon the Regulations Working Group

49. Several technical requirements which the registrar would be expected to meet are dependent upon ongoing discussion regarding the Draft Regulations for the MAC Protocol International Registry. These include:

- (a) Details on the process of registering and authenticating users (Part 2.a.3 of the Draft MAC RFP): any prospective registrar must have an idea of the steps it will need to undertake in registering users to the International Registry. Additionally, the question of who can access different parts of the registry may also be addressed following the finalisation of this discussion in the Draft Regulations (see Paragraph 34 of Draft MAC RFP).
- (b) The process of minimising the risk of unauthorised registrations (Part 2.a.4 of the Draft MAC RFP): the RFP could indicate the process, if any, a prospective registrar would need to follow to minimise the risk of unauthorised registrations.
- (c) Registration criteria (Part 2.a.5 of the Draft MAC RFP): the RFP should indicate the types of data a prospective registrar would be expected to collect when a registration is made in the international registry. This will be guided by the work of the Regulations Working Group.
- (d) Block registrations may be deleted from the RFP subject to discussions in the Regulations Working Group.
- (e) Entry points designated by Contracting States (Part 2.a.16 of the Draft MAC RFP): the discussion on connecting factors for designated entry points within the Regulations Working Group will have to be included in the RFP.
- (f) Closing room feature: Depending upon the result of deliberations within the Regulations Working Group, provisions may need to be added to the Draft MAC RFP in relation to requiring a prospective registrar to offer services similar to the 'Closing Room' of the International Registry for the Aircraft Protocol.

50. Regarding the issue of information to be collected when a registration is being filed, in paragraph 37 and others of the RFP, it is indicated that the registration form will collect the electronic signature of the registering person. On this matter, an expert noted the following:

“Further detail on exactly what is required as an ‘Electronic Signature’ would be helpful, including any cryptographic requirements, particularly in the international context, with different legislation applying in different countries.

It may be worth exploring eIDAS (electronic IDentification, Authentication and trust Services), the EU regulation on electronic identification and trust services for electronic transactions, which may have a role to play.

Some corporate users will have access to cloud-based electronic signature services, such as Docusign or Adobe Sign. It may be helpful to clarify if these services can be used when updating the Registry.

Some organisations require each user to download and install an application to enable digital signatures. Such a download may be a barrier to usage particularly for corporate users, where downloads will often be blocked by IT policy. It may be helpful to set out a desirable requirement for a solution that minimises or eliminates such download issues.”

51. The written comments by participants of the Working Group at the end of its first session agreed that the aforementioned matters should be dealt with by the Registrar Working Group only once the underlying substantial issues had been clarified in the Regulations Working Group.

II. ISSUES RELATING TO THE TECHNICAL CONTENT OF THE RFP

52. Noting the technical nature of the design and operation of a registry of this sort, several technical details must be considered. These technical details form an important part of the RFP as they allow prospective bidders to ascertain their capacity to undertake this role. The Working Group may consider relying upon outside expertise to further their understanding of these matters and provide feedback on the Draft RFP. A non-exhaustive list of these issues with their corresponding sections in the Draft RFP is as follows:

- (a) Details on FAQs, technical support, and helpdesk of the registry (Part 2.A.18 of the Draft RFP): This includes the determination of the number of hours for which the helpdesk of the Registry should be available (Paragraph 59).
 - (i) According to Section 3.6 of the Regulations, live help shall be available as set out in the Procedures. Section 3.5 of the Aircraft Registry Regulations provides that the helpdesk shall be available 24 hours a day, 7 days a week, whereas the Request for Proposals for the International Registry for Railway Rolling Stock refers to 40 hours per week.
- (b) System availability (Part 2.A.21 of the Draft RFP): the question of how much non-availability time should be allotted per year for maintenance power outages, hardware problems, etc.
- (c) The list of items to be included in the System Design Document (Part 2.B.9 of the Draft RFP), including the number of days within which such a document is to be expected after the finalisation of the contract with the registrar.
- (d) Overarchingly, for all items in Part 2.C on System Requirements, input should be sought from engineers and software specialists who have knowledge of developing and operating similar registries. The Secretariat is not in a position to assess the validity or invalidity of the requirements listed and does not possess the technical expertise to ascertain if certain items are missing from these lists. The Secretariat would welcome offers from the Working Group regarding getting input from technical experts on this matter.

53. The participants of the Working Group agreed in their written comments at the end of the first session on the importance of obtaining expert advice on the technical aspects of the RFP, especially on Part 2 of the Draft RFP. Following this, the Secretariat has sought feedback from various technical experts and has implemented this into the draft RFP. The Secretariat will continue this work after the second session of the Working Group.

III. ISSUES OF PROCEDURE

A. Who to invite

54. The RFP issued for the Aircraft Protocol invited proposals from States, as well as other entities. In the case where a bid was submitted by an entity other than a State, the following additional information was requested:

(1) *identify the State where the bidder will locate the Registry (the Proposed Host State);*

(2) *describe any undertakings the Proposed Host State is prepared to make with respect to establishment and operation of the Registry; and*

(3) *provide assurances from the Proposed Host State with respect to the Proposed Host State's intended undertakings, including, where that Proposed Host State is not a Contracting State, its willingness to enter into a Host State agreement in which, inter alia, it agrees to comply with all provisions of the Convention and Protocol relating to the International Registry to the same extent as if it were a Contracting State.*

Any bid to serve as Registrar submitted by a State other than a Contracting State shall provide assurances that it is willing to enter into a Host State agreement in which, inter alia, it agrees to comply with all provisions of the Convention and Protocol relating to the International Registry to the same extent as if it were a Contracting State.

55. The RFP issued for the Luxembourg Rail Protocol invited entities to apply for the role of setting up the International Registry. An explanation for this can be found in Resolution 3 of the Diplomatic Conference for the adoption of the Luxembourg Rail Protocol which resolved that the *'that the Grand Duchy of Luxembourg shall be the host State of the International Registry.'* This provision automatically ensured that the International Registry for the Luxembourg Rail Protocol shall be hosted in Luxembourg. As such, only entities could be invited to serve as the registrar. The MAC Protocol has no such limitations.

56. Paragraph 14 of the Draft MAC RFP reads: *'Requests to participate may be made by public or private entities'*, thereby allowing proposals from all types of entities. The Working Group may consider:

(a) Expressly noting that the RFP is only open to States;

(b) Expressly noting that the RFP is only open private entities;

(c) Changing the language to: *'Requests to participate may be made by public or private entities, including States.'*

57. The Working Group may also give additional consideration to the location of the registry in general. Part 2.a.26 of the Draft MAC RFP notes that *'It is preferable, though not required, that the International Registry's computer back-up and storage systems be located in the territory of a Contracting State to the Convention.'* Expressly obliging the registry to be based in a Contracting State of the MAC Protocol could also be an alternative in this regard and could be an incentive for States to sign and ratify the MAC Protocol.

58. The Working Group did not reach any agreement on this matter at its first session and is invited to deliberate this further.

B. How to distribute

59. Paragraph 125 of the Draft MAC RFP indicates that the RFP will be distributed to States which are Contracting Parties to the Cape Town Convention and/or any of its Protocols, as well as States which attended Diplomatic Conferences for the Cape Town Convention and/or any of its Protocols, and to member and observer States of the Preparatory Commission, and to UNIDROIT Member States. Additionally, the RFP would also be posted on the UNIDROIT website.

60. The participants of the Working Group agreed in their written comments after the first session that the RFP should be distributed to States which were Contracting Parties to the Cape Town Convention and/or any of its Protocols, as well as States which attended Diplomatic Conferences for the Cape Town Convention and/or any of its Protocols, and to Member and Observer States of the Preparatory Commission, and to UNIDROIT Member States. Additionally, the RFP would also be posted on the UNIDROIT website.

C. Process of Submission of Proposals

61. Paragraph 130-131 of the draft RFP indicate that proposals must be submitted by post to the Institute's address in Rome with paper originals and documents sent in CDs or USB keys. Alongside the security risks to the Institute of receiving CDs or USB keys, it was noted by an expert that most Government procurement now takes place through online portals, with all submissions being done electronically, rather than through paper or hardware.

62. It may be beneficial to receive submissions directly via email. The Working Group is invited to further consider this matter.

D. Evaluation

63. Several issues exist insofar as the evaluation process is concerned for the selection of a registrar after proposals have been collected:

(a) Noting the resources available to the ICAO Secretariat, for the Aircraft Protocol, a comprehensive Evaluation Plan was developed as part of the RFP. This plan entailed an Evaluation Team which comprised of several evaluators possessing expertise in different areas, and was also supported by advisors. This Evaluation Team followed a comprehensive ratings and evaluation process. The report of the Evaluation Team was submitted the Preparatory Commission, where only Members from those States which did not have a bid were allowed to vote to come to a final decision.

(b) Noting the relatively limited amount of resources available when identifying a registrar for the Luxembourg Rail Protocol, the proposals received were evaluated by the Preparatory Commission, drawing upon expertise as appropriate (see Paragraph 121 of).

(c) The Draft MAC Protocol RFP seeks to follow a middle-ground approach whereby the Preparatory Commission would be in charge of evaluating the proposals received, and consulting experts as appropriate. However, the Commission would rely upon a ratings system to objectively evaluate both the Technical Offer, and the Financial Offer. Details of this rating system can be found in Part 5.D of the Draft MAC RFP of this document.

64. The participants of the Working Group agreed in their written comments after its first session that the proposals received should be evaluated by the Preparatory Commission while consulting outside experts as appropriate. A middle-ground approach relying upon a rating system was supported. However, it was noted that the present system outlined in Paragraph 140 of the Draft

RFP was not sufficiently developed to adequately evaluate the technical offer. The Working Group is invited to give further consideration to the evaluation process of the proposals received.

65. As part of the Evaluation Phase, consideration may be given to the process of negotiating with bidders. The process for the Aircraft Protocol registrar involved simultaneous negotiation with several of the most promising bidders, whereas for the Luxembourg Rail Protocol, one preferred bidder was selected for negotiation. The Draft MAC Protocol RFP follows a model similar to the Luxembourg Rail Protocol, wherein Paragraph 3 States that only the initially preferred bidder will be invited for negotiations.

66. Regarding simultaneous negotiations with multiple bidders, it was agreed during the first session that while a possibility to do so should be retained in the RFP, there should be no obligation to do so, keeping in mind the limited resources available to the Preparatory Commission. An additional sentence has been added to Paragraph 3 of the draft RFP to reflect this.

E. Timeline

67. The Working Group may give consideration to the timeline identified for procuring a registrar. Presently, the following sequence illustrates the RFP process (actual dates may vary according to the circumstances):

- (a) [DD MM] – RFP is issued;
- (b) [DD MM] (a + 3 months) – final date for the request to participate and preliminary offer to be submitted;
- (c) [DD MM] (b + 3 months) – evaluation by Preparatory Commission and notification of all tenderers on their ranking, notification to the preferred tenderer – preferred tenderer should be prepared to commence contract negotiations within 4 weeks of the notification – although may be subject to change;
- (d) [DD MM] (estimated) (c + 3 months) – finalisation of contract negotiations between the Preparatory Commission and the preferred tenderer;
- (e) [DD MM] (estimated) (d + 1 month) – approval by the Preparatory Commission of the final contract between the Supervisory Authority and the preferred tenderer;
- (f) [DD MM] (e + 3 months) – submission to the Supervisory Authority by the Registrar of the System Design Document (SDD);
- (g) No later than 6 months after (e) – commencement of test phase of the International Registry;
- (h) No later than 8 months after (e) – completion of test phase of the International Registry;
- (i) No later than 12 months after (e) – full implementation and commissioning of the International Registry. The full implementation and commissioning of the International Registry refers to the preparedness for the International Registry to immediately begin full operations. However, the precise date of the entry into force of the MAC Protocol, and of the actual commencement of full operations of the International Registry, will be determined in accordance with Article XXV of the MAC Protocol, and that date may be after the date that the full implementation and commissioning of the International Registry is achieved.

68. At its first session, the Working Group agreed that the timeframes mentioned in Paragraph 146 (a)(b)(c)(d) were reasonable, whereas (e)(f)(g)(h)(i) were too short. The Working Group may give additional consideration to this matter.

F. Inclusion of Critical Performance Factors

69. As part of the project on Best Practices in the Field of Electronic Registry Design and Operation, which is organised under the auspices of the Cape Town Convention Academic Project, a paper has been developed detailing a list of critical performance factors for collateral registries.

70. The participants of the Registrar Working Group agreed in their written comments that the critical performance factors identified in the project on Best Practices in the Field of Electronic Registry Design and Operation organised under the auspices of the Cape Town Convention Academic Project should be incorporated within individual parts of the RFP document. It was also noted that bids could be scored against their capacity to adhere to the aforementioned critical performance factors.

71. At this stage, the Secretariat has included the Working Paper as an annex to the draft RFP. At a later stage in the development of the RFP, the Secretariat shall invite the drafters of the Working Paper to provide comments on how the critical performance factors could be appropriately incorporated into the document.

ANNEX A**RESEARCH ON INTERNATIONAL BEST PRACTICES IN TENDERING AND PROCUREMENT**

1. This section identifies certain international best practices in tendering and procurement. Noting the nature of its work, UNIDROIT does not have a set of procurement rules which it follows. However, as an intergovernmental organisation, UNIDROIT seeks guidance from practices of the United Nations for several of its activities.
2. Noting this, the Secretariat will aspire to follow guidelines issued by the [United Nations Procurement Division](#) and the [United Nations Global Marketplace](#), as well as examining procurement guidelines issued by other intergovernmental organisations.
3. In setting a baseline Code of Conduct for suppliers, the Secretariat will follow the UN Supplier code of conduct which informs vendors of the following:
 - (a) that they may not engage in corrupt practices
 - (b) that they must disclose information on any situation that may appear to present a conflict of interest
 - (c) that UNIDROIT has a zero-tolerance policy with regards to the acceptance of gifts or hospitality from Vendors
 - (d) that there are restrictions on the employment by Vendors of former UNIDROIT staff members.
4. The full UN Supplier Code of Conduct can be accessed in six languages at the following link <https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct>
5. Additionally, the Secretariat has examined the [United Nations Procurement Manual](#) issued on 30 June 2020 for guidance as to best practices in issuing a RFP. Moreover, the Secretariat has sought guidance from the 2009 UNCITRAL Model Law on Procurement of Goods, Construction and Services to identify 20 standard practices in conducting a tendering process:²

A. Tender Planning Phase

1. Publication of approved Annual Procurement Plan
2. Needs assessment and formulation of project initial brief
3. Provision of an adopted accurate estimate in the national budget
4. Appointment of an Independent and Free Tender Committee

B. Tender Document Development Phase

5. Use of neutral & standard Technical specifications
6. Setting of Non-discriminatory Eligibility/Participation conditions
7. Use of Standard Tender Documents 5 C. Solicitation of Tenders Phase
8. Reception/Submission of Tenders and Public Opening of Bids
9. Allocation of sufficient time to Advertisement of tender proposals
10. Use of multiple and/or dedicated media for Tender Advertisement
11. Grant of enough time for preparation of Tender Bids
12. Reception and response to Requests for Clarifications

² Douh, S., 2016. Standard Practices for an Effective Competitive Tendering Process for Public Works Procurement. *Civil Engineering and Architecture*, 4(5), pp.193-200.

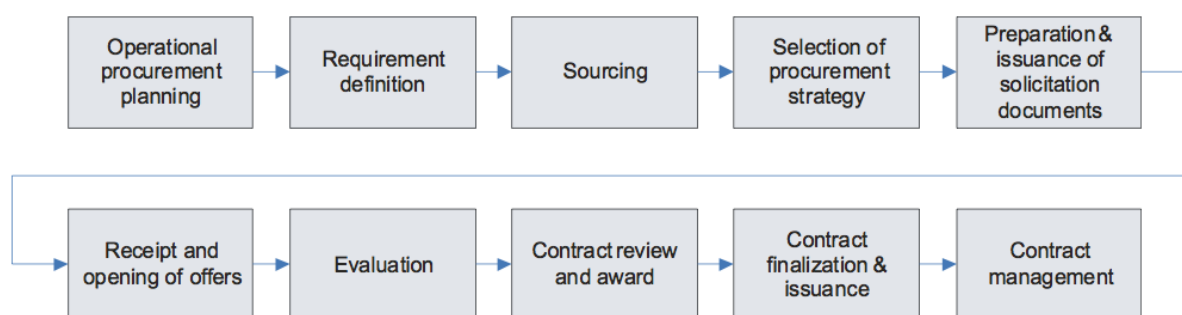
D. Evaluation of Bids Phase

13. Requiring of tender security covering the Validity Period
14. Constitution of qualified and ethical Tender Evaluation Panel
15. Evaluation of tenders using Points system of scoring
16. Requiring of necessary clarification of bids
17. Appropriate use of Margin of Preference

E. Pre-Award Phase

18. Provision of Complete recordkeeping of procurement proceedings
19. Publication of tender results including successful & Unsuccessful
20. Provisional award of contract

6. The United Nations Global Marketplace utilises the following flowchart for its procurement process which can be found in the [UN Procurement Practitioners Handbook](#):



7. The procurement process relied upon by the Secretariat is largely in compliance with the aforementioned best practices and guidelines issued by the United Nations, to the extent practicable. The Secretariat has also examined procurement principles and best practices from other intergovernmental organisations. The Secretariat will intend to implement best practices in the following categories within its procurement process:

- (a) Derive value for money
- (b) Promote fair competition
- (c) Practice transparency
- (d) Practice good management
- (e) Ensure the prevention of misconduct
- (f) Provide for accountability and control
- (g) Ensure an effective process for dispute resolution

8. In evaluating the bids received in response to the RFP, the Secretariat will provide the evaluators a comprehensive document outlining the considerations which they should keep in mind.

ANNEX B**RESEARCH MEMO ON API LIABILITY UNDER THE CAPE TOWN CONVENTION**

Introduction

1. This memo examines the issues of liability under the Cape Town Convention and its Protocols, looking specifically at the liability of a Registrar should it use an Application Programming Interface (API) as part of its operating system, thereby allowing third parties to use the core system of the Registrar through their own systems.

2. An API is a set of functions and procedures allowing for the creation of applications that access the features or data of an operating system, application, or other service. Simplistically, it is part of the design architecture of a software system which includes a software intermediary, allowing software and interfaces of other applications and parties to access the data or the features of the original software system. For example, an API allows the connection of the backend software system of Bank A, which allows the operation of certain bank services with the software or graphic interface or web interface of Parties B and C, which provide services in any relevant sector and require payment.

3. For the purposes of the Cape Town Convention and its Protocols, the primary function of any Registrar is to allow for registrations and searches of the International Registry. As the draft MAC RFP is structured at the moment (a) the Registrar shall have the exclusive right in relation to this core function, (b) the Registrar shall be remunerated for any costs—but not allowed to profit—in relation to the core function, (c) the successful applicant will have the right to engage in ancillary services in relation to which it can operate on a profit basis, and (d) the ancillary services are not envisioned to be exclusive for the successful applicant.

4. The possibility of allowing the Registrar to use APIs, thereby allowing third parties to use the Registrar's core system or ancillary services requires several considerations:

a. Whether and how the Registry is going to be accessible for users and intermediaries in the broadest possible way. This is not something dealt with in the present memo but serves as the underlying rationale of the discussion to include APIs in the Registrar's software.

b. Whether the Registrar's system architecture should allow third parties to use and incorporate via an API parts of the Registrar's backend system and functions to their own system and interfaces. This issue relates closely with the core and ancillary services a registrar can provide and with the possibility of third parties profiting on the Registrar's detriment.

c. What the distribution of liability should be in case third parties are allowed to use the Registrar's backend system via an API.

Liability Regime Under the Cape Town Convention

5. Article 28 of the Cape Town Convention deals with the question of the Registrar's liability providing that:

(1) *The Registrar shall be liable for compensatory damages for loss suffered by a person directly resulting from **an error or omission of the Registrar and its officers and employees or from a malfunction of the international registration system** except where the malfunction is caused by an event of an inevitable and irresistible nature, which could not be prevented by using the best practices in current use in the field of electronic registry design and operation, including those related to back-up and systems security and networking.*

(2) *The Registrar **shall not be liable** under the preceding paragraph **for factual inaccuracy of registration information received by the Registrar or transmitted by the Registrar in the form in which it received** that information nor for acts or circumstances for which the Registrar*

and its officers and employees are not responsible and arising prior to receipt of registration information at the International Registry.

(3) Compensation under paragraph 1 may be reduced to the extent that the person who suffered the damage caused or contributed to that damage.

(4) The Registrar shall procure insurance or a financial guarantee covering the liability referred to in this Article to the extent determined by the Supervisory Authority, in accordance with the Protocol.

6. Under the regime established by the Cape Town Convention, the Registrar's liability is a strict one imposed not only for errors or omissions of the Registrar and its staff, but also for system malfunction. This standard is necessary as the system is electronic, and, in such a system, ensuring its proper design and operation is an essential function of the Registrar. This seems to suggest that if the system was structured in a way which allowed registrations via an API on the interface of a third party's system, the Registrar would, be, in principle, liable for any errors or malfunctioning of the system as a whole.

7. However, the Registrar's liability is not absolute. It is qualified in a number of respects. The two possibly relevant qualifications for the question at hand are:

a. the Registrar is not liable for a malfunction caused by an event of an "inevitable and irresistible nature" which could not be prevented by best practice in design, operation or security. The malfunction must be caused by an event which is unavoidable and insurmountable even with best practices in current use in the field of electronic design and operation.³

This seems to suggest that, if the system includes an API but is designed according to the best practices available, the Registrar would not be liable. The inclusion, however, of an API opens up the system to design flaws of the third parties' system which in turn might result in malfunctions of the Registrar's system or faults in the registration process.

b. the Registrar is not liable for the factual inaccuracy of information it receives or transmits in the form in which the Registrar received it. The role of the Registrar is essentially administrative. In an automated registration system with no human intervention in the registration and search processes. As explained in the Commentary, the Registrar is entitled to assume the correctness of data received and to transmit such data in search certificates without liability. The Registrar is, however, responsible to ensure that the system embodies up-to-date security features designed to verify that registration information comes from an authorised person. The Registrar is also not responsible for acts or circumstances arising prior to receipt of registration information, since these are outside the Registry system. So, the Registrar incurs no liability for errors or system malfunction in a national entry point.⁴

These suggest that if the design of the system is such to entertain the relevant best practices and ensures that the information entered either directly by the user or via an intermediary through their interface using an API, the Registrar should not be liable for the inaccuracy of such information.

[Third Party Applications/Websites, APIs, and Liability of the API Provider](#)

8. As mentioned above, an API is a connector between the backend core system of one party and the interface of another party which uses this core system without necessarily knowing how it operates. APIs are essentially a set of protocols and codes determining how various software components and elements should communicate. They are used to communicate different software applications with each other. Due to the widespread usage of open banking now, the use of APIs in

³ See 4th Edition of the Official Commentary of the Convention on International Interests in Mobile Equipment and its Protocol of Aircraft Objects at 4.187

⁴ See 4th Edition of the Official Commentary of the Convention on International Interests in Mobile Equipment and its Protocol of Aircraft Objects at 4.189

fintech has also become mainstream and they are being used to issue commands to third-party service providers.⁵

9. In this context, as it remains an unregulated area,⁶ the liability of the API provider in relation (a) to the API receiver and (b) to third parties using the software or interface of the API receiver should be a question dealt with under the laws applicable to the relevant relationships. It is difficult, however, to imagine how the API provider is to be held liable for inaccuracies resulting from mistakes or errors at the level of the API receiver acting as an intermediary. What the API provider has to ensure is that the API protocols and structure is such to ensure the correct and accurate transmission of information and also to include safety net protocols which will ensure that the user has the ability to check the accuracy of information or to flag potential issues arising out of information inputs which might be completely out of range.

10. Finally—and again depending on the legal system applicable—it is possible that the API provider includes a limitation of liability clause in contracts concluded with an API receiver or even includes as a prerequisite for the provision of the access to its core functions via an API the inclusion of financial coverage or of the waiver of the API provider's liability.

Third Party Intermediaries and API's Under the Cape Town Registrar's System

11. Based on the above, the Cape Town Convention and its Protocols do not seem to exclude the possibility of intermediaries accessing the backend core functions of the Registrar via an API. One important element is that, even if third parties are able to access the core functions of the Registrar, that is, to register and search entries in the registry, the ability to perform these functions remains still at the Registrar's exclusive control. This can be safeguarded by putting in place protocols and safety nets. One important element, however, is that the intermediaries should not be able to profit in relation to these core functions on the Registrar's shoulders. This could be ascertained if the intermediaries undertake an obligation not to charge in relation to these core activities but only for other ancillary services where the Registrar is also allowed to operate in profit. Another solution might be if the API provision is considered an ancillary service itself whereby the Registrar is providing intermediaries with the ability to access its core elements via an API in exchange of a relevant royalty or fee. This would again allow the intermediary to operate generally on a profit without operating to the detriment of the Registrar.

12. In relation to the liability, based on the above, it seems that the Cape Town Convention would not place liability for incorrect information transmitted via an intermediary to the Registry. This is because the situation is not legally or pragmatically different than the one already mentioned in the Convention and the relevant commentative texts of incorrect information being inputted directly by the user.

13. The Registrar is, however, responsible to create a system which is in accordance with the best practices in the relevant field. The field of registry intermediaries is not developed and relevant information can be ascertained from the field of bank intermediaries and the open bank API systems. An important element in creating such a system is to include safety net elements which either nudge the user to review the accuracy of the information entered or flag values entered which are out of predefined limits set by the system.

14. Another important element is that the Registrar would need to ensure that the information inserted regarding the interests is compatible with each other and with the Convention itself. As explained in the commentative texts of the Convention, registration in the International Registry of interests which are not Convention interests or registrable non-consensual rights or interests, though of no effect under the Convention but may expose the registrant to liability under the applicable law, e.g. for slander of title or a similar tort. In providing a system that would safeguard against this possibility, the Registrar might need to add certain protocols to the API so as to check and flag inconsistencies in the information provided.

⁵ <https://appinventiv.com/blog/use-of-apis-in-fintech/>.

⁶ Some effort is being undertaken more generally in relation to E-commerce by the EU under the new E-Commerce Directive. See https://edri.org/wp-content/uploads/2020/04/DSA_EDRiPositionPaper.pdf.