

REQUEST FOR PROPOSAL

To: ALL BIDDERS

CTBTO Ref. No.: 2024-0051/JIBRIL

(PLEASE QUOTE ON ALL COMMUNICATIONS)

Tel. No.: +43 (1) 26030-6350

E-mail: procurement@ctbto.org

Attn:

Phone:

Fax:

Email:

Date: 14 Mar 24

Subject: Enhancements and Maintenance of IDC Products and IMS Data - Secure
Web Portal for the CTBTO as per attached Terms of Reference.

Deadline for Submission: 19 Apr 24

Vienna Local Time: 17:00

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (hereinafter referred to as the 'Commission') hereby invites you to submit a proposal that meets the requirements of the attached documents.

You are kindly requested to complete and return the acknowledgement form by email as soon as possible.

If you have any questions you should contact the email address indicated above.

Yours Sincerely,

SAS

Sally Alvarez De Schreiner
Chief, Procurement Services Section

ACKNOWLEDGEMENT FORM

Solicitation No: 2024-0051	Closing Date: 19 Apr 24
Title: Enhancements and Maintenance of IDC Products and IMS Data - Secure Web Portal for the CTBTO as per attached Terms of Reference.	Vienna Local Time: 17:00

Procurement Staff: Othman Jibril

CTBTO Req. No.: 0010024104

Please complete 'A' or 'B' or 'C'
and Return

WITHIN FIVE (5) DAYS

THE PREPARATORY COMMISSION FOR THE
COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION (CTBTO)

by email to
procurement@ctbto.org

A: We shall submit our proposal

By: _____ (date)	Company Name: _____
	Contact Name: _____
	Email/Tel: _____

B: We may submit and will advise

By: _____ (date)	Company Name: _____
	Contact Name: _____
	Email/Tel: _____

C: We will not submit a proposal for the following reason(s)

- ___ our current workload does not permit us to take on additional work at this time;
- ___ we do not have the required expertise for this specific project;
- ___ insufficient time to prepare a proper submission;
- ___ other (please specify) _____

Company Name: _____
Contact Name: _____
Email/Tel: _____

INSTRUCTIONS FOR PREPARATION AND SUBMISSION OF PROPOSALS

1. General

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (the Commission) with its headquarters in Vienna is the International Organization mandated to establish the global verification system foreseen under the Comprehensive Nuclear-Test-Ban Treaty (CTBT), which is the Treaty banning any nuclear weapon test explosion or any other nuclear explosions. The Treaty provides for a global verification regime, including a network of 321 stations worldwide, a communication system, an International Data Centre and on-site inspections to monitor compliance with the Treaty.

This Request for Proposal (RFP) is for the provision of *Enhancements and Maintenance of IDC Products and IMS Data - Secure Web Portal for the CTBTO* services as described in the attached Terms of Reference.

The Proposal shall meet all requirements stated in the Terms of Reference and be submitted in accordance with these Instructions for Preparation and Submission of Proposals. For this project, the Commission is seeking capabilities, which will ensure that the services are delivered, and the tasks are accomplished expeditiously and at a reasonable cost.

2. Documents included in this RFP.

This RFP consists of the following documents:

- (a) Letter of Invitation
 - These Instructions for Preparation and Submission of Proposals, Bidder's Statement Form and with the following Attachments:
 - Attachment 1: Mandatory Requirements of the Technical Proposal
 - Attachment 2: Evaluation Criteria and Method
 - Attachment 3: Price Schedule Form
 - Attachment 4: Procedure for submission of electronic offers in 2 sealed files
- (b) Statement of Confirmation
- (c) The Commission's Model Contract and its Annexes A – B;
 - o The Commission's General Conditions of Contract (Annex A), incorporate herein by reference, found at www.ctbto.org under [CTBTO General Conditions of Contract](#)
 - o The Commission's Terms of Reference (Annex B)

Note: In the event of award, the Proposal will be incorporated as Annex C to the Contract.

3. Amendment of RFP Documents

At any time prior to the closing date for submission of Proposal, the Commission may, for any reason, modify the RFP documents by amendment. The Commission may consider extending the deadline in order to allow adequate time for considering the modifications in the preparation of the Proposal.

4. Language of the Proposal

The Proposal and all correspondence and documents relating to it shall be in English.

5. Format and Submission of the Bid

The Proposal shall be typed, dated and signed by an official legally authorized to enter into contracts on behalf of your organization. The Proposal shall not contain any interlineation, erasures or overwriting except as necessary to correct errors, in which case such corrections shall be initialled by the authorized person(s) signing the Proposal.

The Proposal shall be submitted electronically according to the attached “PROCEDURE FOR SUBMISSION OF ELECTRONIC OFFERS IN 2 SEALED FILES”.

Bids sent by regular e-mail, unless clearly submitted as electronically sealed bids as indicated above and following the instructions outlined in Attachment 3 will not be considered and may lead to the rejection of the bidder from the procurement process.

Alternatively, the Bids may be submitted in physical form in two sealed envelopes as follows:

- (i) **One sealed envelope shall contain 1 (one) original of the Technical Proposal clearly marked as “Original Technical Proposal”. This envelope shall also contain a memory stick with 1(one) pdf of the Technical Proposal.**

No pricing/financial information shall be included in the Technical Proposal. Note however that the list of items (without the prices) shall be included in the Technical Proposal.

- (ii) **The second sealed envelope shall contain 1 (one) original of the Financial Proposal marked as “Original Financial Proposal”. The second envelope shall also contain a memory stick with:**

1(one) pdf of the Financial Proposal; and

1(one) pdf of the Financial Proposal without prices

The outer envelope containing the 2 envelopes shall be clearly marked as follows:

NAME OF PROJECT: [Description indicated in Letter of Invitation]

CLOSING DATE: [Date indicated in Letter of Invitation]

CTBTO REF. NO.: [Number indicated in the Letter of Invitation]

"DO NOT OPEN BEFORE THE CLOSING DATE"

Mailing Address

The envelope containing the Original Proposal shall be sent to the following addressee:

Chief, Procurement Services Section

Office E0918

CTBTO, Vienna International Centre

Wagramer Strasse 5, A-1400 Vienna, AUSTRIA

Closing Date and Time

The Proposal shall be received by the Commission not later than the closing date and time indicated in the Letter of Invitation or as may be extended by the Commission.

6. Request for Clarifications and Contacting the Commission

The Commission will issue clarifications, if required. Bidders are requested to e-mail any questions pertaining to this RFP as soon as possible after receipt of the solicitation documents, but in any case, no later than 10 business days prior to the Closing Date. No requests for clarifications will be entertained after this time. Questions will only be accepted via e-mail be sent to:

E-mail: procurement@ctbto.org
Subject: Request for Clarifications re RFP No. [RFP 2024-0051/JIBRIL](#)

The Commission will make all reasonable efforts to issue the clarifications not later than 7 business days prior to the Closing Date.

Except in case of responding to a RFP clarification, no Bidder shall contact the Commission on any matter relating to the Proposal or this RFP after its submission and until the award of the Contract. Any attempt to influence the Commission in its evaluation of the Proposal or the contract award decision may result in the rejection of the Proposal.

7. Eligible Goods and Services

The services and goods (if any) to be rendered under the Contract shall have their origin in the States Signatories of the Comprehensive Nuclear-Test-Ban Treaty (CTBT), the list of which is available at our website www.ctbto.org under [Status of Signatures and Ratifications | CTBTO](#). For purposes of this paragraph, "the origin" means the place from where the materials, goods and/or from which the services are supplied.

8. Type of Contract and Payment

The Commission intends to conclude firm fixed unit prices Contract (s) based on the attached Model Contract. The terms and conditions of payment for services are described in Clause 13 of the attached Model Contract.

9. Preparation of the Proposal

The Proposal shall contain, but not necessarily be limited to, the information described below.

The Proposal shall be composed of the following separate parts:

- I. **Technical Proposal;** and
- II. **Financial Proposal;**

providing, but not limited to, the following information:

PART I: TECHNICAL PROPOSAL

Please state the reference number and the date of this RFP in the Proposal and any correspondence relating to it.

No pricing/financial information shall be included in the Technical Proposal. Note however that a complete list of the items being offered (without the prices) shall be included in the Technical Section of the Proposal.

Bidders are required to follow *Attachment 1: Mandatory Requirements of the Technical Proposal* provided as part of these Instructions for Preparation and Submission of Proposals.

Point of Contact

The Proposal shall state the contact details and address (name, telephone and fax numbers, and e-mail address) of the person/point of contact in your company dealing with this RFP.

Supplier Registration Form

Bidders must submit the Supplier Registration Form available at www.ctbto.org under [Supplier registration form](#) | CTBTO

Statement of Confirmation and Bidder's Statement Form

The attached Statement of Confirmation and Bidder's Statement Form shall be duly signed and submitted together with the Proposal.

Documents Establishing the Eligibility and Qualifications of the Bidder

The Bidder shall furnish documentary evidence of its status as an eligible and qualified supplier in accordance with the requirements set forth in the Terms of Reference. In order to award a contract to a Bidder, its qualifications must be demonstrated and documented in the Proposal to the Commission's satisfaction.

Description of Services

An explanation of the Bidder's understanding of the services to be provided and an overall preliminary operational plan for the execution of the services by providing a section-by-section response to the Terms of Reference indicating how the Bidder meet or will meet each of the technical requirements.

The Commission will take into consideration the on-boarding time (off-site/on-site) needed to get familiar with the systems. The Proposal shall clearly state how many person-days are expected to be necessary for the Contractor's staff to familiarize with the system landscape. The estimated on-site/off-site days needed to get familiar with the systems shall be listed as a separate item in the proposal.

The Proposal shall also provide any other relevant issue which the bidder would like to bring to the attention of the Commission whether or not having cost implications.

Commission's Inputs

A description of the expected inputs/resources to be made available by the Commission and at what stage of the services.

Personnel

Curriculum vitae of key personnel proposed for this contract, including technical experience to perform the Work, to be included in the Technical Proposal.

Please note that it is the Bidder's responsibility alone to obtain **work permits or visa or similar** for the personnel proposed to implement this project. The Commission will make no effort nor accept any responsibility for obtaining work permits or visa or similar for the Contractor's personnel.

Use of former Preparatory Commission for the CTBTO ("Commission") employees in the preparation of Quotations:

A Bidder must not, in the absence of prior written approval from the Commission, permit a person to contribute to, or participate in, any process relating to the preparation of a Quotation or the procurement process if the person:

- a. At any time during the 12 months immediately preceding the date of issue of the Solicitation was an official, agent, servant or employee of, or otherwise engaged by the Commission;
- b. At any time during the 24 months immediately preceding the date of issue of the Solicitation was an employee of the Commission personally engaged, directly or indirectly, in the definition of the requirements, project or activity to which the Solicitation relates.

In accordance with the Terms of Reference, the Contractor shall establish and maintain a Team Roster, for which at a minimum, the following information shall be provided for each of these staff as part of the Technical Proposal: Name; Role; Employed since; Type(s) of Service(s) from Section 3 in which the staff may be involved and Curriculum Vitae. Each member of the Team Roster shall be appropriately skilled and experienced to carry out the role and service(s) listed in the Team Roster.

Sub-Contractors

Names, legal status, address and qualifications of subcontractor(s), if any, and the scope of the subcontracted services. The Proposal shall provide a statement that your organization shall be fully responsible for the performance of sub-contractors. All sub-contractors shall be legally established in one of the CTBTO States Signatories the list of which is available at www.ctbto.org under [Status of Signatures and Ratifications | CTBTO](#).

PART II: FINANCIAL PROPOSAL

Bidders are required to prepare the Price Schedule using *Attachment 3 (Price Schedule Form)* as applicable, attached to these Instructions for Preparation and Submission of Proposals. In presenting the cost for each item, adequate justification and calculation must be included in the Financial Proposal.

Clear and detailed explanations would enable the Commission to evaluate the Proposal promptly and proceed with fewer requests for clarifications/justifications in a later stage. This is also a factor influencing the decision for Contract award.

In principle the Commission is exempt from taxes. Since the arrangement under which such exemption is respected varies from country-to-country, the selected Bidder will be informed by the Commission whether tax exemption will occur at source or whether taxes paid by the selected Bidder will be reimbursed by the Commission upon submission of the original supporting documentation.

(1) For Austrian companies

The price quoted shall be net of Taxes. All applicable Taxes payable by the selected Bidder at the conclusion or implementation of the Contract in respect of the goods/services shall be quoted separately or be separately identified on the Proposal together with information on the nature of the tax and its method of calculation.

(2) For European Union (EU) Companies

The price quoted shall be net of Taxes. All applicable Taxes payable by the selected Bidder at the conclusion or implementation of the Contract in respect of the goods/services shall be quoted separately or separately identified on the Proposal together with information on the nature of the Tax and its method of calculation. Due to the VAT exemption applicable to the Commission, no VAT will be charged to the Commission by the EEC Suppliers under the Contract (Ref. EU VAT Council Directive 2006/112/EC, Article 151).

(3) For Non-EU Companies

The price quoted shall be net of Taxes. All applicable Taxes payable by the selected Bidder at the conclusion or implementation of the Contract in respect of the goods/services shall be quoted separately or be separately identified on the Proposal together with information on the nature of the tax and its method of calculation. For deliveries to Vienna, Austria, and due to the tax exemption at source applicable to the Commission, no Taxes shall be charged to the Commission under the Contract.

10. Completeness and Correctness of the Proposal

The Commission reserves the right to verify all information furnished by you in the Proposal through a source of its choice. Any inaccurate information so given may lead to the rejection of the Proposal.

11. Validity of the Proposal

The Proposal shall be valid for 90 (ninety) days after the deadline for its submission to the Commission unless an extension of validity has been requested by the Commission.

12. Correction of Errors

The Commission will check the Proposal for any arithmetic errors. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.

13. Evaluation of the Proposal and Award

- (a) The Commission will conduct the evaluation based on the criteria and method specified in Attachment 2 "Evaluation Criteria and Method".
- (b) The Commission, based on the evaluation criteria and method given in Attachment 2, will determine the Proposal(s) that "most effectively satisfies the technical and operational requirements set out in the solicitation documents", subject to contractual and financial compliance.
- (c) The Commission reserves the right, as it deems appropriate, to award to a single bidder, to award to multiple bidders in any combination or not to award to any of the bidders as a result of this RFP.

14. Negotiations of the Proposal

The Commission reserves the right to request clarifications on the Proposal and to enter into negotiations regarding technical or commercial aspects of the Proposal before awarding the contract under this RFP.

15. Modification and Withdrawal of the Proposal

Bidders may modify or withdraw their Proposals after their submission, provided that written notice of the modification or withdrawal is received by the Commission by the closing date for the submission of the Proposal. The Proposal may not be modified subsequent to the closing date.

16. The Commission's Right to Reject the Proposal

The Commission reserves the right to accept or reject the Proposal or to annul this procurement process at any time prior to the award of contract without having to inform the Bidders of the grounds therefore, without thereby incurring any liability to the Bidders.

17. Costs of preparation and submission of the Proposal

Bidders shall bear all the costs associated with the preparation and submission of their Proposal and the Commission will not be responsible or liable for those costs, regardless of the outcome of this RFP.

18. Proprietary Information

All documentation and information contained in this RFP are proprietary to the Commission and shall not be duplicated, used or disclosed -in whole or in part- for any purpose other than to evaluate them and respond to the Commission's request for Proposal or otherwise without prior written agreement of the Commission.

BIDDER'S STATEMENT
PLEASE STATE BELOW & SUBMIT WITH PROPOSAL

Delivery Time:

Shipping weight (kg) and Volume (m³) – if applicable:

List of recommended consumables and spares including prices and details on local availability, if applicable (please tick):

☐ For one year period ☐ For a period of

Warranty period if applicable (it shall be for a **minimum of 24 months**, starting from the acceptance of the goods/services by the Commission) – please tick below as applicable:

☐ For a two-year period ☐ For a period of

Availability of local service in Vienna, Austria (if any):

State country of origin or assembly of all items quoted:

Quantity discount and early payment discount (if any):

Include documentary evidence of qualifications to perform the order, which shall establish to the Commission's satisfaction that the bidder has the financial, technical and production capability necessary to perform the order in its entirety and to provide spare parts and other necessary on-going services as required.

Included in this quotation : **Yes** ☐ **No** ☐

Confirmation that the bidder has reviewed the Commission's General Conditions of Contract, Model Contract, and agreed to all terms and conditions.

Yes ☐ **No** ☐

Remarks:

With regards to the software provided with the equipment, state and confirm whether the software licenses are transferable to third parties, i.e. the Commission or the Commission's State Signatories - list available at www.ctbto.org under [Status of Signatures and Ratifications | CTBTO](#).

Yes ☐ **No** ☐ **Not applicable** ☐

Remarks:

Name:

Name & Title of Contact Person:

Signature & date:

ATTACHMENT 1

Enhancements and maintenance of the IDC Products and IMS Data - Secure Web Portal for the CTBTO on A Call-Off Basis

Mandatory Requirements of the Technical Proposal

Item	Minimum content
1. Executive Summary	<ul style="list-style-type: none">• Provide an overview of proposal
2. Experience, Resources and Project Management	
2.1 Corporate Profile and Values	<ul style="list-style-type: none">• Brief background of the company, mission/vision, ownership, size, location, number of personnel by type (technician, engineer, etc.), departments, profile, etc.• Company business structure and its authority to execute all Work under the Contract.• Explain the management structure to demonstrate the ability to effectively provide the specified goods and/or services to the required quantity, quality, timeliness and delivery.• If a consortium, provide a clear explanation of the business relationship between the members and governance for execution of this project.• In case the Bidder requires the services of subcontractors, the Proposal shall include:<ul style="list-style-type: none">(a) Relationship of the Bidder's business to any subcontractor(s) that will be used.(b) Names, addresses, legal status and qualifications of major sub-contractor(s) proposed by your organisation.(c) The scope of work and nature of subcontracting; and(d) A statement that any subcontractors are legally established in one of the CTBTO state signatories (see list attached to the RFP).(e) A statement that the Bidder's organisation, shall act as the main contractor, bearing full responsibility for the performance of its subcontractors.
2.2 Corporate Experience	<p>Demonstrate and provide documentary evidence the Contractor's qualification to provide the Commission with satisfactory guarantee of its technical and financial capability to deliver the services required as per the Terms of Reference for a time period of up to ten (10) years. The proposal should detail the Bidder's experience in managing and executing work of similar scope and complexity. In particular, the proposal should cover:</p> <ul style="list-style-type: none">• Past experience in Linux-based Web Portal development, utilizing technologies like Liferay Portal, Azure Blob Storage, RabbitMQ, Apache AirFlow, ElasticSearch, and expertise in Roles and User Management, including Oracle IDM and OAM Suite Authentication, JIRA Ticketing System, Software Configuration Management using (Git).• The challenges that related to the migration of applications to the infrastructure in the Kubernetes environment.• Past and current experience in integrating Elastic Stack (ELK) to boost web application observability and logging. Proficient in real-time monitoring, centralized log management, and data-driven insights for enhanced performance and troubleshooting.

2.3 Project Management Team and Staffing	<ul style="list-style-type: none"> • Provide project management structure and Key personnel of the project. • Describe the project management and software development methodologies used in past and current projects, including on experience with Agile project management methodologies, in particular Scrum and Kanban, and the way the company may have customized Scrum or Kanban to address challenges posed by individual projects.
2.4 Availability of resources	<ul style="list-style-type: none"> • Please address in as much detail as reasonable what resources you will make available for the successful provision of software development such as: <ul style="list-style-type: none"> – key personnel – hardware – software – offsite facilities for developers. • Please describe how the requirements in Section 5.1 of the Terms of Reference (ToR) are satisfied. The bidder's proposal should explain (as a percentage of a Full-time Equivalent) that each member of the Team Roster's is available during the initial 1-year contractual period.
2.5 Quality and Project Management Processes	<ul style="list-style-type: none"> • List and describe any quality and/or process management systems in use by the Bidder in its software projects. Include copies of any relevant current certifications as attachments to the Technical Proposal. • List and describe any project management methodologies in use by the Bidder in its software projects. Include copies of any relevant current certifications as attachments to the Technical Proposal • Describe any established risk management and risk mitigation measures in use by the Bidder. Provide an overview of what strategies are in place to manage and mitigate key risks that could affect the delivery of the services. • Please describe the governance mechanisms on the side of the contractor, including monitoring of the performance of the staff executing the project and how complaints regarding non-performance of the staff involved in the project should be raised and will be addressed by the bidder.
2.6 Configuration Management	<ul style="list-style-type: none"> • Please demonstrate your experience in configuration management practices, including but not limited to identification, control, status accounting, auditing, and change management, with a specific emphasis on utilizing tools such as Jira (ToR Section 3) for issue tracking and project management, and GitLab for version control and collaboration (ToR Section 2.4). • Please indicate your ability to effectively manage configurations of software systems throughout their lifecycle, ensuring consistency, integrity, and traceability while facilitating seamless collaboration and controlled evolution among multidisciplinary teams. Experience in establishing and maintaining baselines, conducting audits, and implementing release management processes is also highly desirable.

2.7 Risk Management	This Section shall include an initial risk assessment plan (ToR Section 7). A detailed risk assessment plan shall be provided in the event of award at the beginning of the project including identifying potential obstacles to successful software delivery. Risks, including technical issues, scope changes, responses to the standard and urgent/emergency issues, resource constraints, schedule delays, integration issues, and third-party dependencies, should be regularly updated with project milestones.
3. Meeting the Requirements	
3.1 Understanding of the project	Please describe your understanding of the scope of work under the ToR (Section 3), detailing key assumptions that impact the Technical Proposal.
3.2 Documentation and Reporting	<ul style="list-style-type: none"> • Provide written assurance that all reports, documentation and communication (written and oral) supplied to the Commission shall be in English and submitted in an electronic form. • Provide written assurance that all documentation will adhere to the IDC Documentation Standards, samples of which will be provided to the successful Contractor. • Describe your knowledge and ability to use Integrated ticketing system Jira to track and report project status throughout the contract.
3.3 Warranty	Confirm a warranty period of at least two years after the completion of the user acceptance testing. Terms and conditions of post-warranty support and bug fixes shall be available and clearly specified.
3.4 Pre-screening process for Software Team	Briefly describe a proposed pre-screening process to identify suitable staff to Software Teams from the Team Roster meeting ToR Section 5.2.
3.5 No-obligation to call-off	Provide a written acknowledgement and acceptance of the Commission's no obligation clause i.e. the Commission reserves the right, at its sole discretion, to call-off more, less or no person-days at all under the Contract.
4. Skills and Experience of key staff	
4.1 Key Personnel Experience	<ul style="list-style-type: none"> • Include at least 2 key personnel meeting the requirements to be included in the Team Roster as described in Section 5.2 of the ToR, and their CVs. • Describe the proposed role; how long each of the key personnel has been employed with the Bidder; and the type(s) of Service(s) from the ToR in which each proposed staff may be involved. Justify how each member of the Team Roster is appropriately skilled and experienced to carry out the role and service(s) listed in the proposed Team Roster. Please note that one proposed staff can have expertise in more than one of the key services described in Section 3.1 List past projects in which each of the proposed staff has acquired the experience described in Sections 3 and Section.5.2 of the ToR. • A statement that the capacity, in terms of qualified human resources in the proposed Team Roster, is adequate to tackle all Services described in Section 3 of the ToR, including maintaining availability of personnel to start Work under WO when required for the duration of the Contract. • Identify the key point(s) of contact for the full scope of the Contract.

4.2 Visa & Work Permits	Provide written confirmation that the Bidder understands and agrees to taking responsibility for obtaining any Visa and/or work permits, which may be required to perform the Work under the Contract.
5. Attachments	
	<ul style="list-style-type: none"> • Statement of Confirmation • Supplier Profile Form hereby referenced by link Supplier registration form CTBTO • Bidder's Statement Form

Attachment 2
Evaluation Criteria and Method

Ref No. in TOR	1.QUALIFICATION REQUIREMENTS (PASS/FAIL)	PASS/FAIL
	Requirements for the Contractor (PASS /FAIL)	PASS/FAIL
5.1.1	A minimum 3 years of professional experience in Linux-based Web Portal development, utilizing technologies like Liferay Portal, Azure Blob Storage, RabbitMQ, Apache AirFlow, ElasticSearch, and expertise in Roles and User Management, including Oracle IDM and OAM Suite Authentication, JIRA Ticketing System.	PASS/FAIL
5.1.2	Demonstrated adequate organizational capacity and stability to ensure the provision of long-term support as outlined in these terms of reference. At least 10 years of experience in IT industry and a minimum of 15 employees are required.	PASS/FAIL
5.1.3	The Contractor's personnel has demonstrated clear communication skills in English and are able to maintain technical documentation and reports to a high standard. Proven prior experience or certification in English language proficiency, such as TOEFL (Test of English as a Foreign Language), IELTS (International English Language Testing System), or equivalent, is necessary.	PASS/FAIL
5.1.4	The Contractor's staff must possess relevant certifications or demonstrated proficiency in Agile methodologies, such as Scrum Master certification or equivalent, to ensure effective collaboration within the Scrum team framework.	PASS/FAIL
5.1.5	Suitable project management and quality assurance methodologies (e.g. ISO 9001:2015).	PASS/FAIL
	Requirement for the Contractor's Personel (PASS /FAIL)	PASS/FAIL
5.2.1	Master's degree in a scientific or technical discipline with an emphasis on computing.	PASS/FAIL
5.2.2	A minimum of three (3) years of professional experience within the last 5 years implementing web-based solutions with backend in Java.	PASS/FAIL
5.2.3	A minimum of three (3) years of experience within the last 5 years designing and developing data access layers as well as physical data models for data driven applications. Practical knowledge of Oracle or PostgreSQL RDBMS.	PASS/FAIL
5.2.4	A minimum of two (2) years of experience within the last 5 years of using Liferay Portal on a daily basis. Proven proficiency in developing and managing web portals, with a strong focus on ensuring compliance with Java Portlet Specification (JSR 168/286/362).	PASS/FAIL
5.2.5	A minimum of three (3) years of professional experience within the last 5 years in developing React JavaScript frontend, preferably for the Liferay portal.	PASS/FAIL
5.2.6	A minimum of three (3) years of experience within the last 5 years implementing and designing Web Services (SOAP/REST).	PASS/FAIL
5.2.7	Minimum three (3) years of recent experience using Linux (preferably Red Hat Enterprise Linux) as a software development platform.	PASS/FAIL
5.2.8	A minimum of two (2) years of experience within the last 5 years working with Elasticsearch. Knowledge of the Elastic Stack (Elasticsearch, Logstash, Kibana, Beats) and hands-on application of monitoring and observability concepts is an asset.	PASS/FAIL
5.2.9	At least two (2) years of experience working with message queues and brokers, including knowledge of technologies such as RabbitMQ and Apache Kafka, enabling efficient and reliable messaging in distributed systems.	PASS/FAIL
5.2.10	Proficiency in Apache Airflow with hands-on experience over the past two (2) years, including experience developing Apache Airflow Directed Acyclic Graphs (DAGs) using Python.	PASS/FAIL
5.2.11	A minimum of three (3) years of continuous experience in software architecture, including knowledge of object-oriented design principles and proficiency in implementing design patterns.	PASS/FAIL
5.2.12	A minimum of two (2) years of experience within the last 5 years in providing software development services using an Agile methodology, preferably Scrum or Kanban.	PASS/FAIL
5.2.13	A minimum of two (2) years of experience with writing unit, integration and regression tests	PASS/FAIL
5.2.14	A thorough understanding of DevOps principles is essential, along with at least two (2) years of proven experience building CI/CD pipelines using GitLab.	PASS/FAIL

Only bidders who pass all above criteria will be considered for the point system evaluation (2nd stage)

No.	2.TECHNICAL REQUIREMENTS - EVALUATION CRITERIA AND METHOD	Points		
	Quality of the Proposal	Max Points	Factor	Weighted score
	Extent to which all aspects of the ToR have been addressed in sufficient detail and clarity.	5	1.5	7.5
2	Understanding of the scope of work and the responsibilities of the Contractor	5	1.5	7.5
	Maturity of the software quality processes proposed by the bidder.	5	1	5
	Subtotal	15		20
	Requirements for the Contractor	Max Points	Factor	Weighted score
5.1.1	A minimum 3 years of professional experience in Linux-based Web Portal development, utilizing technologies like Liferay Portal, Azure Blob Storage, RabbitMQ, Apache AirFlow, ElasticSearch, and expertise in Roles and User Management, including Oracle IDM and OAM Suite Authentication, JIRA Ticketing System.	5	2	10
5.1.2	Demonstrated adequate organizational capacity and stability to ensure the provision of long-term support as outlined in these terms of reference. At least 10 years of experience in IT industry and a minimum of 15 employees are required.	5	2	10
5.1.3	The Contractor's personnel has demonstrated clear communication skills in English and are able to maintain technical documentation and reports to a high standard. Proven prior experience or certification in English language proficiency, such as TOEFL (Test of English as a Foreign Language), IELTS (International English Language Testing System), or equivalent, is necessary.	5	1	5
5.1.4	The Contractor's staff must possess relevant certifications or demonstrated proficiency in Agile methodologies, such as Scrum Master certification or equivalent, to ensure effective collaboration within the Scrum team framework.	5	1	5

5.1.5	The Contractor shall propose suitable project management and quality assurance methodologies (e.g. ISO 9001:2015).	5	1	5
Subtotal		25		35
	Skills and experience of (key) personnel to be met at the team level	Max Points	Factor	Weighted score
5.2.1	Master's degree in a scientific or technical discipline with an emphasis on computing.	5	1	5
5.2.2	A minimum of three (3) years of professional experience within the last 5 years implementing web-based solutions with backend in Java.	5	2	10
5.2.3	A minimum of three (3) years of experience within the last 5 years designing and developing data access layers as well as physical data models for data driven applications. Practical knowledge of Oracle or PostgreSQL RDBMS.	5	2	10
5.2.4	A minimum of two (2) years of experience within the last 5 years of using Liferay Portal on a daily basis. Proven proficiency in developing and managing web portals, with a strong focus on ensuring compliance with Java Portlet Specification (JSR 168/286/362).	5	1	10
5.2.5	A minimum of three (3) years of professional experience within the last 5 years in developing React JavaScript frontend, preferably for the Liferay portal.	5	2	10
5.2.6	A minimum of three (3) years of experience within the last 5 years implementing and designing Web Services (SOAP/REST).	5	1	5
5.2.7	Minimum three (3) years of recent experience using Linux (preferably Red Hat Enterprise Linux) as a software development platform.	5	1	5
5.2.8	A minimum of two (2) years of experience within the last 5 years working with Elasticsearch. Knowledge of the Elastic Stack (Elasticsearch, Logstash, Kibana, Beats) and hands-on application of monitoring and observability concepts is an asset.	5	1	5
5.2.9	At least two (2) years of experience working with message queues and brokers, including knowledge of technologies such as RabbitMQ and Apache Kafka, enabling efficient and reliable messaging in distributed systems.	5	1	5
5.2.10	Proficiency in Apache Airflow with hands-on experience over the past two (2) years, including experience developing Apache Airflow Directed Acyclic Graphs (DAGs) using Python.	5	1	5
5.2.11	A minimum of three (3) years of continuous experience in software architecture, including knowledge of object-oriented design principles and proficiency in implementing design patterns.	5	2	10
5.2.12	A minimum of two (2) years of experience within the last 5 years in providing software development services using an Agile methodology, preferably Scrum or Kanban.	5	1	5
5.2.13	A minimum of two (2) years of experience with writing unit, integration and regression tests	5	1	5
5.2.14	A thorough understanding of DevOps principles is essential, along with at least two (2) years of proven experience building CI/CD pipelines using GitLab.	5	1	5
Subtotal		70		95
TOTAL - Technical Evaluation		110		150

The minimum acceptable Total Points is 66 with 102 scoring weight

The maximum number of points is 110 with 150 in scoring weight.

EVALUATION METHOD:

1. Technical Evaluation:

The technical evaluation process will be done in two stages:

1) Stage 1: Technical proposals will first be evaluated against the mandatory requirements outlined in section 1 above, on a PASS/FAIL basis.

Compliance with all mandatory requirements is required in order to pass stage 1 of the technical evaluation and to be further considered for stage 2 of the evaluation process.

2) Stage 2: The technical proposals that have passed stage 1 of the technical evaluation process, will be evaluated against the weighted criteria set forth in the evaluation matrix above.

In order to pass this stage, bidders must obtain **at least 66 points** and in accordance with the scoring in table 2 below:

Table 2

Points	Explanation - to be considered when assigneing the points
0	Unsatisfactory - Response incomplete, inadequate and/or non-responsive to the criterion. Bidder does not clearly understand the criterion.
1 - 2	Weak - Does not meet the minimum technical, functional, or performance related criterion.
3	Good - Meets the criterion to minimum acceptable levels in all areas
4	Very good - Exceeds the criterion in some areas.
5	Excellent - Exceeds the criteria in some or all areas.

2. Financial and commercial evaluation

Once the technical evaluation is finalized, the financial offers of the technically compliant bidders will be evaluated in accordance with the formula given below:

$X = \text{Max Available Points} * Y/Z$

Legend:

X= points to be assigned to the offer being evaluated

Y= price of the lowest priced, technically compliant offer

Z= price of the offer being evaluated

The weight of the technical and financial components is 60% and 40% respectively.

The Contract will be awarded to the bidder who receives the highest combined score resulting from the technical and financial evaluations, subject to contractual and commercial acceptability.

ATTACHMENT 3
Format of Financial Proposal

Enhancements and Maintenance of IDC Products and IMS Data - Secure Web Portal for the CTBTO On a Call-off Basis (WOs)

Description (ToR): Tasks under Section 3.1 (Scope of Work)	Unit	QTY	Initial Call-off period 12 months (Max Est. 350 person-days) Unit Price	1st Optional extension period 12 months (Max. Est. 350 person-days) Unit Price	2nd Optional extension period 12 months (Max. Est. 350 person-days) Unit Price
Off-site Rate: Max. Est. 340 person-days /each period	Person/Day	1			
On-site Rate Max. Est. 10 person days/each period (excluding Travel Cost).	Person/Day	1			
Travel Cost:			Unit Price		Unit Price
(i) Return Ticket/Trip per person : Max. est No. of trips: 2 trips of 5 days each per period	RT/Trip	1			
(ii) DSA (Daily Subsidiary Allowance) per On-site working day: 10 days per period	Day	1	Do not quote for DSA -Please see below notes	Do not quote for DSA -Please see below notes	Do not quote for DSA -Please see below notes

NB:

- 1) Please specify currency (**USD or Euro only**). The rates shall be firm and fixed throughout the term of the Contract.
- 2) This is a unit-based Contract. The exact number of working days will be determined/called-off in the form of Work Orders (WOs) at the rates quoted in this Attachment.

3) The person-days noted are an upper limit, and the Commission reserves the right, at its sole discretion, to call-off fewer person-days or no person-days at all.

4) For evaluation purposes, bidders shall provide the cost of return ticket.

5) Bidders shall not quote for Daily Subsidiary Allowance (DSA), it shall be calculated and paid based on the values provided by the International Civil Service Commission (ICSC) and available in their website (as applicable at the time of issuing the work order (WO)).

Attachment 3

“Procedure for Submission of Electronic Offers in 2 Sealed Files”

The Commission invites you to submit your sealed offer (Bid, or Proposal) in response to the solicitation forming part of this request.

Please be sure to follow the instructions below very carefully, so that the documents you submit are encrypted, and cannot be opened without an encryption key (password). If the documents are not encrypted, they will not be accepted as part of this tender process.

CRITICAL INFORMATION:

Create separate zip files for the technical offer and the financial offer (labeling them clearly in the title) with different encryption keys. Instructions for how to do this are provided below.

Step 1: You provide the encryption key (password) for the *Technical Offer only* (in accordance with the below instructions)!

Step 2: After the Commission has performed the evaluation of the Technical Offer, if your Technical Offer is considered to be acceptable, the Commission will request the encryption key (password) for the Financial Offer you have already submitted by the tender Deadline.

Should you have any questions, please send an email to procurement@ctbto.org.

We recommend that you leave yourself plenty of time to complete the below process (including getting any necessary assistance from the Commission), as late offer will not be accepted.

INSTRUCTIONS:

1. In a **WINDOWS** environment, one way of meeting the requirements is as follows.

We recommend using the open-source, free software **7-zip**, but if you are comfortable with other tools, the result should be the same, as long as you can apply encryption to the archive. In the below, we'll use 7-zip as an example.
(You can download the 7-zip code for Windows at: 7-zip.org)

2. In **LINUX** environment, you can use, for instance, “sha1sum” on the command line.

Creating the archives for submission

Regardless of whether the offer is a single file, or a collection of files, the files are easier to manage if delivered as a single, compressed file. Compressing the archive is a common way to meet size limitations in email systems.

As an example of how to submit your offer in the required format: assuming you are supplier “SOFTCOMP” and have the following files related to the offer for “RFP 2020-0010/EDWALD”. (*You will need to replace these elements with the real information for your actual offer in line with the relevant Instructions for Preparation and Submission of Proposals/Bids.*) Assuming further that you have installed the 7-zip software on the Windows system you are using.

We will only go through the creation of the Technical Offer (Proposal/Bid) component; the Financial Offer (Proposal/Bid) component is similar.

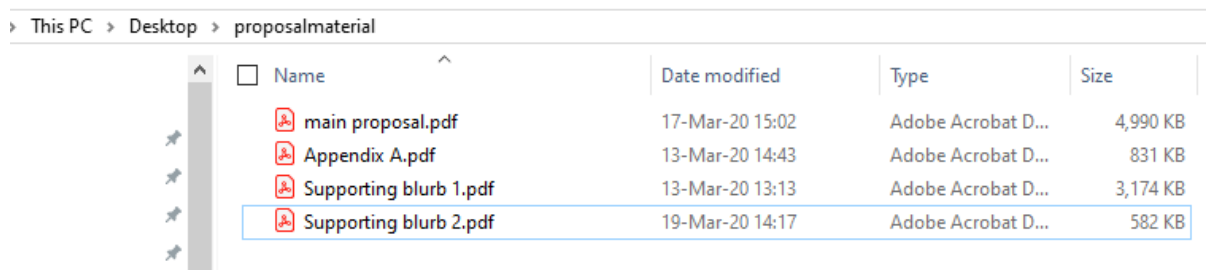


Figure 1 An example set of files to be submitted

Select the four files and right-click; a Dialog box pops up, with one of the options being “7-ZIP >”. Hover your cursor over the “>” part and a few more options appear, select the “Add to archive” option.

Another dialog box pops up (see ‘Figure 2, Creating an Archive’, next page):

Using the standard Windows methods, select a suitable location for the archive (if you don’t change it, the archive gets created right where the selected files are), and give it a name in the form of: “SOFTCOMP-2020-0010-EDWALD-TECHNICAL-BID”, of course replacing all the elements with the true values for the offer in question: the actual company indicator, and the actual RFP/ITB identification string. Note that it is not possible to put a slash “/” in the filename, and therefore put a dash “-” instead. Leave the file extension “.zip” as is.

Leave all the other settings as is, except: **add a password to the encryption** (see figure 2 below). This is done by typing the same password (of your choosing) twice in the two text fields in the lower right hand corner.

Make a note of this password. You must choose different passwords for the two zip archives, that is, the Technical and the Financial Proposal/Bid.

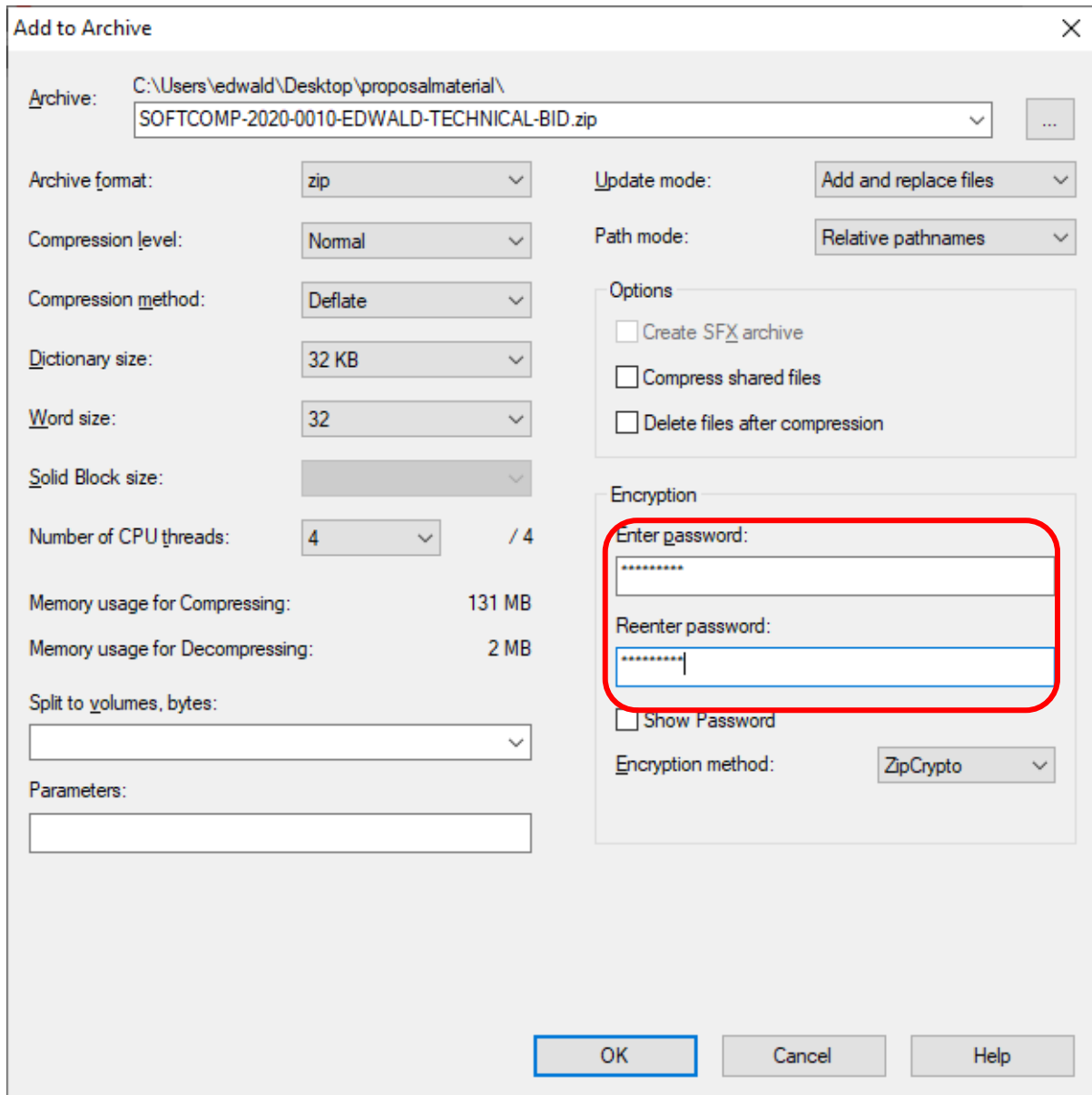


Figure 2 Creating an Archive

Now, we seek the “SHA1 Hash”, and electronic fingerprint of the archive you have just created. The hash is a string calculated from your file(s) and can be used to guarantee that the file has not been modified since you created it. Any change to the file will result in a different hash value.

There are many ways of calculating this; two common options are described below.

If the appropriate functionality is available in your Windows environment: Select the compressed archive in the Windows file manager, (eg. SOFTCOMP-2020-0010-EDWALD-TECHNICAL-BID.zip) and right click. One of the options to select is “CRC SHA >”. Hovering over the “>” brings a few more options to light, select the **SHA-1** option. A smaller dialog pops up: (see Figure 3, SHA1 below).

Clicking Ctrl-C grabs the contents of this box. You can close the box after copying the contents. (You can paste the contents into a mail message, for instance.)

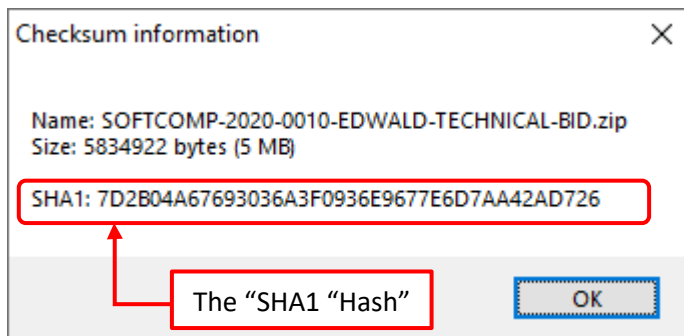


Figure 3 SHA1

If this CRC SHA function is not available by 'right-click' on your Windows version, you can also do this from 'the command line', a slightly more complicated way. Open a CMD window (see sidebar below), move to the folder where your archive is, and execute the command:

`"certutil -hashfile SOFTCOMP-2020-0010-EDWALD-TECHNICAL-BID.zip sha1"`
where you obviously replace the name of the file with your real file name. The output of this command is the SHA1 "hash". You can copy-and-paste the string for use in the email (below).

Sidebar: How to open a CMD window in Windows:

The way to open a Command window (or 'terminal') depends on the version of Windows you have. The different methods are very clearly described in the following article, but a quick internet search will find multiple descriptions.

<https://www.lifewire.com/how-to-open-command-prompt-2618089>

Finally,

1. Create a new email, Subject: example- "SOFTCOMP-2020-0010-EDWALD". Add the two compressed archives, that is, the Technical Offer and the Financial Offer archives as attachments. The text of the email should contain the SHA1 information for both archives. **SEND THIS TO:** sealed_bids@ctbto.org (note that there is an underscore "_" between "sealed" and "bids"). (Should the email become larger than your mail system allows, you can try sending the two archives in separate emails. Take care to include the right SHA1 information with each file.)
2. Create a new email, Subject: example- "SOFTCOMP-2020-2010-EDWALD-Technical Offer" the contents of which must contain the Encryption Key for the Technical Offer (the password

you used when creating the Technical Offer). (Again, note the underscore between 'bid' and 'keys'.)

SEND THIS TO: bid_keys@ctbto.org

IMPORTANT NOTE: As stated above, only send the Encryption Key for the Technical Offer to the bid_keys@ctbto.org mailbox when sending your Technical and Financial Offer to the sealed_bids@ctbto.org mailbox. **You shall only send the Encryption Key for the Financial Offer to the Commission if and when informed by the Commission that your Technical Offer had been evaluated as “technically acceptable”.**

The Financial Offer Encryption Key will need to be provided by you to the same e-mail (bid_keys@ctbto.org) within 48 hours of the Commission's request, clearly marked in Subject: Encryption Key for (example):“SOFTCOMP 2020-2010 EDWALD-Financial Offer”. If your Offer is not considered “technically acceptable”, the Commission will not request an Encryption Key for your Financial Offer, and it will remain unopened.

As mentioned above, should you have questions or difficulties, please send an e-mail to procurement@ctbto.org.

We recommend that you leave yourself plenty of time to complete the above process (including getting any necessary assistance from the Commission), as late offers will not be accepted.

STATEMENT OF CONFIRMATION

On behalf of (name of firm or organization): _____, I hereby attest and confirm that:

- a) The firm/organization possesses the legal status and capacity to enter into legally binding contracts with the Commission for the supply of equipment, supplies, services or work.
- b) The firm/organization is not insolvent, in receivership, bankrupt or being wound up, and not under administration by a court or a judicial officer, and that it is not subject to the suspension of its business or legal proceedings for any of the foregoing reasons.
- c) The firm/organization has fulfilled all its obligations to pay taxes and social security contributions.
- d) The firm/organization has not, and that its directors and officers have not, within the last five years been convicted of any criminal offense related to professional conduct or the making of false statements or misrepresentations as to their capacity or qualifications to enter into a procurement or supply contract.
- e) The Commission, in the event that any of the foregoing should occur at a later time, will be duly informed thereof, and in any event, will have the right to disqualify the firm/organization from any further participation in procurement proceedings.
- f) The firm/organization did not/will not attempt to influence any other bidder, organization, partnership or corporation to either submit or not submit a proposal/bid/quotation.
- g) The firm/organization will not, in the absence of a written approval from the Commission, permit a person to contribute to, or participate in, any process relating to the preparation of a Quotation/Bid/ Proposal or the procurement process if the person:
 - a. at any time during the 12 months immediately preceding the date of issue of the Solicitation was an official, agent, servant or employee of, or otherwise engaged by the Commission;
 - b. at any time during the 24 months immediately preceding the date of issue of the Solicitation was an employee of the Commission personally engaged, directly or indirectly, in the definition of the requirements, project or activity to which the Solicitation relates.
- h) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any) have been identified on, or associated with any individual, groups, undertakings and entities identified on, the list established pursuant to the UN Security Council Resolution 1267 (Consolidated Sanctions List).¹
- i) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any) are subject to any form of sanction imposed by an organization or body within the United Nations System, including the World Bank.

¹ The Consolidated United Nations Security Council Sanctions List can be found on the following website:
<https://www.un.org/securitycouncil/content/un-sc-consolidated-list>

- j) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any), is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.
- k) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any) will use the funds received under contracts/purchase orders with the Commission to provide support to individuals, groups, undertakings or entities associated with terrorism.
- l) The prices in the firm/organization's proposal/bid/quotation have been arrived at independently, without consultation, communication or agreement with any other interested companies, competitor or potential competitor with a view to restricting competition.
- m) The Commission shall have the right to disqualify the firm/organization from participation in any further procurement proceedings, if it offers, gives or agrees to give, directly or indirectly, to any current or former staff member of the Commission a gratuity in any form, an offer of employment or any other thing of service or value, as an inducement with respect to an act or a decision of, or a procedure followed by, the Commission in connection with a procurement proceeding.
- n) The Commission shall have the right to disqualify the firm/organization from participation in any further procurement proceedings if it does not disclose to the Commission any situation that may appear as a conflict of interest, and if it does not disclose to the Commission if any official or professional under contract with the Commission have an interest of any kind in the firm/organization's business or any kind of economic ties with the firm/organization.
- o) The firm/organization expressly agrees to abide by the United Nations Supplier Code of Conduct.¹

Name (print): _____

Signature: _____

Title/Position: _____

Place (City and Country): _____

Date: _____

¹ <https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct>

MODEL CONTRACT

between

THE PREPARATORY COMMISSION

FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY

ORGANIZATION

and

NAME OF THE CONTRACTOR

for

the provision of services pertaining to

ENHANCEMENTS AND MAINTENANCE OF IDC PRODUCTS AND IMS
DATA - SECURE WEB PORTAL FOR THE CTBTO

This Contract comprises this cover page, a table of contents, 8 (eight) pages of text, a signatories page, a List of Annexes and 3 (three) Annexes (A to C)

March 2024

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MODEL CONTRACT

This CONTRACT is entered into between the PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION (hereinafter referred to as the “Commission”), having its office located at Wagramer Strasse 5, 1400 Vienna, Austria, and [NAME OF THE CONTRACTOR] (hereinafter referred to as the “Contractor”), having its registered office located at _____ [address] (both hereinafter individually referred to as the “Party” and collectively as the “Parties”).

The Parties hereto mutually agree as follows:

1 DEFINITIONS

In this Contract, words and expressions shall have the same meanings as respectively assigned to them in the General Conditions of Contract and the Terms of Reference. In addition, the following words and expressions shall have the meanings hereby assigned to them:

“**Annex A**” means the Commission’s General Conditions of Contract.

“**Annex B**” means the Commission’s Terms of Reference.

“**Annex C**” means the Contractor’s Proposal.

“**Contract**” means this document, its Annexes and any further modifications or such further documents as may be expressly incorporated in this Contract by the Parties in accordance with Clause 21 (Contract Amendment) below.

“**Contractor**” means the legal entity named in the preamble of this Contract or its successors. The Contractor shall be the only interface for all matters pertaining to execution of the Work under this Contract.

“**Goods**” means the equipment to be supplied and delivered by the Contractor under the Contract as requested by the Commission under the WO.

“**Party(ies)**” means the Commission and/or the Contractor, as the context requires.

“**Rule(s)**” means any regulation(s), official directive(s), ordinance(s), guideline(s), customs and practices.

“**Services**” means the activities or tasks to be performed by the Contractor under the Contract as requested by the Commission under the WO.

“**Work**” means all the Goods and Services to be provided by the Contractor, including its affiliates and/or subcontractors, in order to fulfil all its obligations under the Contract, and the remedying of any defects therein.

“Work Orders (‘WO’)” mean orders issued by the Commission which specify the (parts or portions of) Work to be performed by the Contractor upon request by the Commission in accordance with Annexes B and C.

2 AIM OF THE CONTRACT

The aim of this Contract is to provide Services namely, enhancements and maintenance of IDC Products and IMS Data - Secure Web Portal for the CTBTO (hereinafter referred to as the “Work”) to the Commission.

3 ENTRY INTO FORCE AND DURATION OF THE CONTRACT

The Contract shall enter into force upon the date of the last signature by the authorized Representatives of the Parties (hereinafter referred to as the “**Effective Date**”) and shall be valid until the Parties fulfill all their obligations hereunder.

4 COMMENCEMENT AND COMPLETION OF THE WORK

- (i) The Commission shall have the right, but not obligation, to call-off the Works in the form of WO within a period of 12 months from the Effective Date or the performance of a maximum of 350 (three hundred fifty) person-days by the Contractor, whichever occurs first (hereinafter referred to as the “**Call-off Period**”). The commencement and completion date for the performance of the Works (hereinafter referred to as “**Commencement Date**” and “**Completion Date**”, respectively) will be set out in the respective WO.
- (ii) The Commission shall have the option to extend the Call-off Period twice each for 12 months or the performance of a maximum of 350 (three hundred fifty) person-days by the Contractor, whichever occurs first, subject to the availability of funds, under the same terms and conditions as those of this Contract. The Commission will inform the Contractor about its intention to extend the Work at least one (1) month prior to the expiry of the Contract. The optional extensions will be implemented through a written notification to the Contractor by the Commission.

5 STANDARD OF WORK

The Contractor shall perform the Work in a workmanlike manner in conformity with standard professional practices, using qualified personnel and in strict accordance with the Contract. The Contractor shall furnish the highest skill and judgement and cooperate with the Commission, including all the Commission's consultants and agents, in best furthering the interests of the Commission and the aim of this Contract. The Contractor shall provide efficient business administration and supervision, and it shall perform the Work in the best way and in the most expeditious and economical manner consistent with the requirements of the Contract.

6 RESPONSIBILITIES OF THE CONTRACTOR

- (a) The Contractor shall provide the Work described in Annexes B and C.
- (b) The Contractor shall provide qualified English-speaking personnel as necessary to perform the Work under this Contract. The key persons shall be available for possible tasks related to

the Work throughout the duration of the Contract period. Any replacement of the key personnel shall be made in accordance with Clause 7 of Annex A.

- (c) The Contractor acknowledges that after the completion of the Work under this Contract, the Commission shall own the Software and source code described in Annex B and the Contractor shall have no rights in that Software or source code unless granted by the Commission.

7 ORGANISATION OF CONTRACT IMPLEMENTATION

- (a) During the term of the Contract, the Commission has the right, but not the obligation, to initiate performance of the Work through the issuance of individual WOs in accordance with Annex B based on the firm fixed unit prices set out in Annex C. The Contractor shall not perform any Work if not requested by the Commission through an WO. However, the Contractor may propose a WO for the Commission's evaluation.
- (b) The WO issued by the Commission shall be the basis for acceptance, invoicing and payment of any Work performed by the Contractor.
- (c) The performance of the Work shall be made in full in accordance with the respective WO. Partial service performance of a WO will not be accepted and reimbursed without prior written agreement by the Commission.
- (d) The Work shall be performed at the place and within the approved Work Plan specified in the relevant WO.
- (e) The Commission may revise a WO as and when it may deem necessary.

8 WARRANTY

- (a) The provisions of Clause 33 of Annex A shall apply to the Work performed by the Contractor.
- (b) The Contractor shall ensure that the Commission shall experience no loss of service or support level by sub-contractors or repair agents acting on behalf of the Contractor.

9 PERMITS, NOTICES, LAWS AND ORDINANCES

- (a) The Contractor shall obtain and pay for all permits and inspections necessary for the proper execution and completion of the Work that are customarily obtained upon execution of this Contract and that are legally required at the time the Proposal is received by the Commission. This shall include, but not be limited to, work permits, visa, or similar.
- (b) The Contractor shall give all notices required by the nature of the Work.
- (c) If the Contractor notices that the Work or any part thereof required under this Contract is not in accordance with applicable laws and Rules, or with technical or safety standards, it shall promptly notify the Commission thereof in writing.

10 PROTECTION OF PERSONS AND PROPERTY

- (a) The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programmes in connection with the Work.
- (b) The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury, and loss to:
 - (i) all employees on the Commission's premises and all other persons who may be affected thereby;
 - (ii) all the Work, equipment, its spare parts, materials and supplies to be incorporated therein, whether in storage on or off the Commission's premises, which are under the care, custody or control of the Contractor or any of its subcontractors; and
 - (iii) other property on the Commission's premises or adjacent thereto.
- (c) The Contractor shall give all notices and comply with all applicable laws and Rules bearing on the safety of persons and property and/or their protection from damage, injury and loss.
- (d) The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for the safety and protection of persons and property, including posting danger signs and other warnings against hazards and promulgating safety regulations.
- (e) When the use or storage of combustible, explosive or other hazardous materials is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.
- (f) The Contractor shall be responsible for the prevention of accidents on the Commission's premises during the execution of the Work.
- (g) In any emergency affecting the safety of persons or property, the Contractor shall promptly act to prevent threatened damage, injury, and loss.
- (h) The Contractor shall promptly remedy all damage and loss to any property, referred to in Sub-Clause (b) above, caused in whole or in part by the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible under Sub-Clause (b) above, except damage and loss attributable to the acts or omissions of the Commission or anyone directly or indirectly employed by it, or of anyone for whose acts the Commission may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to its obligations under Clause 9 of Annex A.

11 RESPONSIBILITIES OF THE COMMISSION

The Commission shall designate members of its staff to act as points of contact for the Contractor to ensure that the Work is carried out in accordance with Annexes B and C and shall promptly notify the Contractor thereof. The Commission shall respond promptly to requests for information by the Contractor regarding the Work.

12 CONTRACT PRICE

- (a) The Commission shall pay to the Contractor, in consideration of the full and proper performance of its obligations under the Contract, as follows:
 - (i) For each WO issued during the firm Call-off Period specified in Clause 4(i) above, the firm fixed unit prices pursuant to Annex C and, if applicable, the variable costs (travel costs and other expenditure) specified in Section 4.3 of Annex B;
 - (ii) subject to sub-clause (b) below, for each WO issued during the first and second optional extension of the Call-off Period specified in Clause 4(ii) above, the firm fixed unit prices pursuant to Annex C applicable for each extension and, if applicable, the variable costs (travel costs and other expenditure) mentioned in Section 4.3 of Annex B;

hereinafter referred to as the “Contract Price”.

- (b) In the event that the Commission decides to extend the Call-off Period early, as foreseen in Clause 4(ii) of this Contract, the Contractor will be reimbursed for the person-days called off in this period as follows:
 - (i) until the expiry of the initial Call-off Period, the daily rate set out in subparagraph (a)(i) above;
 - (ii) after the expiry of the initial Call-off Period, the daily rate agreed for the respective extension (subparagraph (a)(ii) above).
- (c) The unit prices set out in Annex C shall be held fixed for the entire duration of the Contract.
- (d) The Contract Price shall cover all costs and expenses incurred by the Contractor for the full and proper performance of all relevant obligations under the Contract (including travel, allowances, management and remuneration of the personnel, national income tax, medical insurance, and social security contributions).
- (e) **[PLEASE IDENTIFY WHETHER TAXES ARE APPLICABLE UNDER THIS CONTRACT AND SELECT ONE OF THE FOLLOWING OPTIONS AT THE TIME OF AWARD]:**

The Contractor shall be reimbursed by the Commission for such taxes on the basis of actual amounts paid and duly documented by the Contractor as per Clause 13(e) below.

OR

No Taxes are applicable under this Contract.

13 PAYMENT

- (a) The Contract Price shall be paid upon satisfactory completion of each deliverable for the Work and satisfactory completion of each WO and submission of the following:

- i) Invoice drawn up in accordance with this Clause 13;
 - ii) Any other documentation that might be required under the applicable WO.
- (b) The Commission will make the payments to the Contractor on the basis of an invoice submitted by the Contractor as per Sub-Clause (d) below. All payments shall be made within 30 (thirty) days of the receipt and acceptance of the invoice, provided that the Work has been satisfactorily completed and has been accepted by the Commission.
 - (c) The making of any payment hereunder by the Commission shall not be construed as an unconditional acceptance by the Commission of the Work accomplished by the Contractor up to the time of such payment.
 - (d) The Contractor shall submit an invoice electronically, from the Contractor's official e-mail address in PDF format, duly signed and stamped by the Contractor and submitted to the Commission's email address specified in Clause 22 below. Each invoice shall contain the Contract number (CTBTO and SAP numbers), detailed banking instructions, including the name and address of the Contractor's bank, account number, account holder's name and SWIFT, IBAN and/or ABA codes for payment by electronic transfer.

[PARAGRAPH (e) BELOW ONLY APPLIES IF THERE ARE TAXES (SEE CLAUSE 12 (d) ABOVE). IF NO TAXES ARE APPLICABLE UNDER THIS CONTRACT, PARAGRAPH (e) SHOULD BE OMITTED.]

- (e) Applicable Taxes payable by the Contractor and/or its subcontractor(s) in respect of the Work shall be invoiced separately or be separately identified on the invoice. Actual payment of the Taxes must primarily be supported by original documentation such as invoices, bank account statements, transfer orders, or receipts issued by the local tax or customs authorities. If submission of such original documentation is not possible for justifiable reasons, their copies could be accepted by the Commission provided that they are duly signed and certified by local tax or customs authorities. In case the currency in which the Taxes are levied is not the currency of the Contract, bank statements (or equivalent) showing the exchange rate used for the conversion should be submitted to the Commission, in addition to any other supporting documentation.

14 TEMPORARY SUSPENSION OF WORK

The Commission may, at any time, temporarily suspend the Work, in whole or in part, being performed by the Contractor under this Contract by giving 30 (thirty) days' advance notice in writing to the Contractor. The Work so suspended shall be resumed by the Contractor on the basis of a revised time schedule and on terms and conditions to be mutually agreed upon between the Parties.

15 DELAYS AND EXTENSION OF TIME

- (a) If the Contractor is delayed at any time in the progress of the Work by any act or omission of the Commission or by any of its employees, or by any other contractor employed by the Commission, or by changes in the Work ordered by the Commission, or by any causes beyond the Contractor's reasonable control, or by any other cause which the Commission determines may justify the delay, then the time for completion of the Work shall be extended

by an amendment to this Contract in accordance with **Clause 21** below for such reasonable time as the Commission may determine.

- (b) Any request for extension of the time for reasons referred to in **Clause 15(a)** above shall be submitted to the Commission not later than 20 (twenty) days after the commencement of the delay, otherwise said request shall be deemed to be waived. Such request shall state grounds for the delay and shall provide an estimate of the probable effect of such delay on the progress of the Work.

16 CONTRACTOR'S CLAIMS AND REMEDIES

In no event shall the Contractor make any claim against the Commission for or be entitled to additional costs or compensation resulting from any delays in the progress or completion of the Work or any portion thereof, whether caused by the acts or omissions of the Commission, including, but not limited to, damages related to overheads, loss of productivity, acceleration due to delay and inefficiency. The Contractor's sole remedy in such event shall be an extension of time for completion of the Work, provided the Contractor otherwise meets the requirements and conditions set forth in this Contract.

17 ENTIRE AGREEMENT

This Contract represents the final agreement in respect of the Work and shall supersede all prior agreements and representations between the Parties in this respect. **Annexes A to C** shall constitute integral parts of this Contract and shall be of full force and effect.

18 DISCREPANCIES

If there are discrepancies or conflicts between any of the documents that are part of this Contract, the document to prevail shall be given precedence in the following order:

- (i) This document;
- (ii) The Commission's General Conditions of Contract (Annex A);
- (iii) The Commission's Terms of Reference (Annex B);
- (iv) The Contractor's Proposal (Annex C);
- (v) The relevant WO.

19 SEVERABILITY

If any term and/or provision of this Contract is or becomes invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions of this Contract shall not in any way be affected or impaired thereby.

20 NO WAIVER

Failure by a Party to enforce a right shall not be deemed to be a waiver of that right unless otherwise expressly provided in this Contract.

21 CONTRACT AMENDMENT

No modification of, or change in, this Contract, or waiver of any of its provisions, or additional contractual relationship with the Contractor shall be valid unless approved in the form of a written amendment to this Contract, signed by duly authorized Representatives of the Parties.

22 TRANSMISSION OF NOTICES AND OTHER DOCUMENTS

Notices, invoices, reports and other documentation under the Contract shall be delivered or sent to the relevant Party as follows (or to such person/title, address or email address as the Party may substitute by notice after the date of the Contract):

- (a) The Commission:

For Contractual Issues:

*Chief, Procurement Section
Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization
(CTBTO)
Vienna International Centre
Wagramerstrasse 5, P.O. Box 1200
1400 Vienna, Austria
Tel: + (43 1) 26030 6350
E-mail: procurement@ctbto.org*

For invoices:

*Accounts Payable
CTBTO Financial Services Section
Vienna International Centre
Wagramerstrasse 5, P.O. Box 1200
1400 Vienna, Austria
Tel: + (43 1) 26030 6292
E-Mail: Payable_Invoices@ctbto.org*

For invoices and payment related enquiries:

Payments@ctbto.org

- (b) The Contractor:

[insert details]

23 EFFECTIVENESS

- (a) Except as provided below, any communication in connection with the Contract will be deemed to be given as follows:
- (i) if delivered in person, at the time of delivery;
 - (ii) if by registered mail or courier, when received;

- (iv) if by electronic communication, when retrievable by the Commission in document form.
- (b) A communication given under Clause 23(a) above that is received or becomes retrievable on a non-working day or after business hours at the seat of the Commission will only be deemed to be given on the next working day of the Commission.

24 SOFTWARE LICENCE

The Commission hereby grants the Contractor a non-exclusive, non-transferable, irrevocable license to use the Software for the duration of the Contract and for the purpose of doing the Work under the Contract. The use of the source code is only for the duration of the Contract and for the Work required under the Contract. All title, ownership rights and intellectual property rights in and to the Software shall remain with the Commission. The Contractor acquires no title, right or interest in the Software, other than the license(s) specifically granted herein by the Commission.

IN WITNESS hereof, the duly authorized Representatives of the Parties have executed this Contract:

For and on behalf of the **PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION:**

[Name and Position]

Date: _____

Place: Vienna, Austria

For and on behalf of **[REGISTERED NAME OF THE CONTRACTOR]:**

[Name and Position]

Date: _____

Place: _____

LIST OF ANNEXES

ANNEX A: THE COMMISSION'S GENERAL CONDITIONS OF CONTRACT

ANNEX B: THE COMMISSION'S TERMS OF REFERENCE

ANNEX C: THE CONTRACTOR'S PROPOSAL

Annex B

Terms of Reference

Enhancements and Maintenance of IDC Products and IMS Data - Secure Web Portal for the CTBTO

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1 INTRODUCTION

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (hereinafter referred to as the “Commission”) is the international organization setting up the global verification system foreseen under the Comprehensive Nuclear-Test-Ban Treaty (hereinafter referred to as the “CTBT”), which is the international Treaty banning nuclear weapon test explosions. The Treaty provides for a global verification regime, including a network of 322 stations worldwide, a communications system, an international data centre and on-site inspections to monitor compliance. More information can be found under www.ctbto.org

One fundamental task of the Commission’s International Data Centre is to provide States Parties with equal, open, timely and convenient access to agreed products and services to support their national CTBT verification requirements. An integral component of the distribution mechanism is the use of web technology.

To this end, the Commission has implemented and deployed a website: “IDC Products and IMS Data Secure Web Portal” accessible by representatives of the States Parties, using technologies described below.

The purpose of these Terms of Reference is to request proposals with respect to continued Enhancement of this portal.

2 BACKGROUND

2.1 The Current Web Portal

The purpose of the IDC Secure Web Portal (SWP) is the fulfilment of the Protocol to the CTBT Part I F. 20, according to which the IDC shall “provide States Parties with open, equal, timely and convenient access to all International Monitoring System data, raw or processed, all International Data Centre products, and all other International Monitoring System data”. The SWP is based on Liferay Portal (Java) with React JS frontend, integrated with Azure Storage and Alfresco. The data is accessed using the Lambda architecture type, combining both batch and event-based data processing layers (RabbitMQ, Apache Airflow, ElasticSearch) to deliver digital products to the user in near-real time.

2.2 Technologies in use

Liferay Portal

The Commission currently uses a Liferay portal version 7.4 GA51. All application modules were, and shall be, implemented as JSR 168/286 compliant portlets.

Alfresco Enterprise Content Management

The Commission’s Web infrastructure uses Alfresco ECM for content management.

Azure Blob Storage

The Commission’s Web infrastructure uses Azure Blob Storage for document and file management.

Interactive Maps and Mapping Tool Integration

The Commission uses the internally hosted instance Tile Server infrastructure to generate and serve required map or terrain information.

User Roles and User Management (Oracle IDM and OAM Suite) Authentication

Users are authenticated using credentials provisioned by the Commission's Identity and Access management platform from Oracle. The application is integrated to use the Single Sign-On Engine for providing access to all permitted modules for any particular user. The identity management service is out of scope for this TOR, but interfacing with the Identity Management subsystem is a required part of the proposed work.

Authorization/provisioning

Access to different modules/services and areas of the application is granted based on the user's role or/and user's group, which are in turn maintained by the Access management platform referenced above.

Data Distribution via Event Driven approach (RabbitMQ, Apache AirFlow, ElasticSearch)

The Commission has implemented an Integrated Data Layer, utilising Lambda architecture type, combining both batch and event-based data processing layers (RabbitMQ, Apache Airflow, ElasticSearch) to deliver digital products to the user in near-real time.

2.3 Environments

The Commission maintains docker based Secure Web Portal environments (test and production); each environment currently consists of several Liferay instances working in a cluster mode. The load between nodes is balanced by F5 Big-IP load balancer. Each Liferay instance is running using Java OpenJDK 8 on the open-source 64bit Linux operating environment (currently RHEL 7.9)

2.4 Source code management and CI/CD

The Commission uses self-hosted GitLab instance as a source code version control system and utilizes custom Continuous Integration/Continuous Delivery and Deployment (CI/CD) pipeline based on GitLab CI. The artifacts are stored in NEXUS Repository Manager.

3 ORGANIZATION of WORK

3.1 Scope of Work

The Commission requests software engineering services to enhance the SWP, using the existing technologies and installed software as baseline. The Commission may require enhancements or modifications to any of the components of the system currently in use. The possible development tasks are listed below:

1. Upgrade Liferay platform and all portlets to the latest version of Liferay (7.4 GA89+ for the time being); This will also require the migration to the higher Elasticsearch version;
2. Migrate SWP infrastructure into the Kubernetes environment;
3. Integrate Elastic Stack (ELK) to enhance observability and logging capabilities in the SWP application, enabling real-time monitoring, centralized log management, and data-driven insights for improved performance and troubleshooting;
4. Adapt SWP to support a database-agnostic architecture, ensuring seamless compatibility and functionality with various database systems, including Oracle and PostgreSQL;
5. Other enhancements related to SWP portal, portlets and services.

The Commission requests specific enhancements, ie. changes and additions to the existing website software, in writing.

The Commission has a change management process in place that covers reporting and tracking software problems, as well as updating test and production environments. An Integrated Ticketing System based on the JIRA software is used to support this change management process. The Contractor personnel shall familiarize themselves with this process and follow it to keep track of such enhancement requests and their progress or conclusion, following best industry practices.

3.2 Initiating Work

The Commission will initiate the Work in the form of Work Orders (WOs). These Work Orders will be the mechanism for initiating Work, the exact scope of Work, the deliverables, acceptance, invoicing and payment of any Services performed by the Contractor. Each WO shall contain the number of man-days of on- or off-site work. The proposal shall clearly list the cost of each WO, in units of specified man-days of work. A portion of these days may be defined as annual maintenance of the system (to carry out bug fixes, corrections to the system, etc.). Each WO will be recorded in the ITSCORE platform <https://itscore.ctbto.org/> based on the JIRA Ticketing System that facilitates issue tracking, agile project management, and collaboration among software development teams.

1. Before the issuance of a WOs to the Contractor and upon receipt of a written request, containing elaborations and definitions as to the nature of the particular Work(s), the Contractor shall provide, at a minimum, within one (1) week of receiving the written request, the following information in the form of a work plan for each Work identified in the written request:
 - Work plan and key schedule to accomplish the Work;
 - Number of person-days to be allocated to the Work;
 - Estimated cost of travel, if applicable, based on simple economy return airfare for the most direct route between the place of establishment of the Contractor and the premises of the Commission in Vienna, Austria;
 - Place of work (on-site/off-site);
 - Commencement date and completion date of the Work.
2. After review of the work plan for the Work identified in the written request, and only after acceptance by the Commission, the WOs will be issued to the Contractor.
3. Each WO shall be based on one (1) or more of the tasks described above and on the approved work plan for each of the Work to be completed. The Commission will forward WOs to the Contractor with adequate advanced notice and containing all necessary details, expected deliverables, and minimum requirements for satisfactory performance.
4. The Contractor shall perform work only after receipt of the WO.

3.3 Completion and Acceptance

1. At the end of a particular Work under the WO, the Contractor shall submit to the Commission the deliverables within the period of performance stated in the respective WO. The deliverables may include:
 - Updated Software Design Documents;
 - Updated Software User Guide;
 - Updated source code for software and common libraries, including documentation.
2. If requested by the Commission in a WO, upon completion of the Work(s) under the WO, the Contractor may be required to provide an oral presentation (including slides/hand-outs as required) to the Commission at its Headquarters in Vienna.

3.4 Software Documentation

The Contractor shall, in the English language, document software development (i.e. source code), implementation and configuration, where appropriate.

3.5 Software Configuration and Installation

The Contractor shall configure and install enhancements into the code base and runtime system at the Commission. The Commission uses the source code control system 'Git' hosted on gitlabx.ctbto.org for this purpose. Communication of source code and related items between the Commission and Contractor may be processed through the 'gitlab' site, as arranged and agreed between the parties. The Contractor shall use the standard workflow methods in use at the Commission to document configuration and installation instructions.

3.6 Regular Review meetings

The parties shall conduct regular Review Meetings:

1. The Contractor's personnel will analyse, and where appropriate gather sufficient user requirements to estimate the volume of work required to implement any requested enhancement or feature.
2. The Commission and Contractor shall meet regularly and review the list of requested enhancements using Microsoft Teams, a collaboration platform developed by Microsoft, providing chat, video conferencing, file sharing, and integration with various other Microsoft Office 365 services.
3. Following review, the Contractor will be requested to implement tasks as deemed appropriate by the Commission.
4. Review meetings shall also address the state of previously requested enhancement tasks, and accept completed tasks, ready for invoicing.
5. The JIRA Ticketing System internally known as ITSCORE (see 3.2) shall be used to track progress and register issues arising with each enhancement request. The JIRA Ticketing System also provides tools to manage SCRUM activities and artifacts in a scope of SCRUM framework (SCRUM Plugin).
6. Formal review of progress shall be agreed upon between the contractor and the Commission. Prior to such reviews, the contractor shall provide the finished work unit(s) to the Commission thus enabling the users to adjust their requirements as necessary.
7. As far as feasible, no modification or enhancement should impose dependencies on programming languages, software or vendors on the Commission, such as, but not limited to, forced upgrades, maintenance and licenses.

4 ADMINISTERING PERFORMANCE

4.1 Invoicing and Payment

The deliverables, after being evaluated and accepted as satisfactory by the Commission, will form the basis for invoicing and payment of a particular Work performed under a WO.

4.2 Term of Contract and Optional Extension

The Commission shall have the right, but not the obligation, to call-off Work in the form of Work Orders from entry into force of the Contract, until 12 months thereafter ("Initial Call-off Period"). The volume of work under the Initial Call-off Period will be limited to 350 person-days. This is an upper limit only, and the Commission reserves the right, at its sole discretion, to call-off less person-days or no person-days at all.

At the end of the Initial Call-off Period, or the depletion of the maximum number of person-days, whichever occurs first, the Commission shall have the option to extend the Call-off Period two times for 12 months each at the terms and conditions set out in this Contract. The effort under each extension will be limited to 350 person-days as well.

4.3 Location of Performance

The Contractor's staff will perform most of the work off-site and they may be required to spend up to 10 person days per Call-off Period onsite, at the Headquarters of the Commission in Vienna, Austria, mainly to get familiar with the particular (operational) environment of the Commission and to conduct any interviews deemed necessary by the Contractor with Commission staff under any of the relevant Tasks herein. The onsite days shall be agreed with the Commission prior to the issuance of the WO (see above).

The Contractor shall make all the travel arrangement (visas, hotels, etc.) for their staff. Airline tickets may be purchased by the Commission, should it be deemed appropriate at the time when work is called off, Daily Subsidiary Allowance (DSA) shall be calculated based on the values provided by the International Civil Service Commission (ICSC) (see section 3.2).

The Contractor may be required to travel to the Headquarters of the Commission in Vienna up to 2 times per call-off period.

5 REQUIREMENTS AND RESOURCES

5.1 Requirements for the Contractor

1. The Contractor must have at least (3) three years of successful experience developing web portals in a Linux environment using the technologies specified in section 2.2.
2. The Contractor must have demonstrated adequate organizational capacity and stability to ensure the provision of long-term support as outlined in these terms of reference. At least 10 years of experience in IT industry and a minimum of 15 employees are required.
3. The Contractor's staff are required to have demonstrated clear communication skills in English and are able to maintain technical documentation and reports to a high standard. Proven prior experience or certification in English language proficiency, such as TOEFL (Test of English as a Foreign Language), IELTS (International English Language Testing System), or equivalent, is necessary.
4. The Contractor's staff must possess relevant certifications or demonstrated proficiency in Agile methodologies, such as Scrum Master certification or equivalent, to ensure effective collaboration within the Scrum team framework.
5. The Contractor shall apply suitable project management and quality assurance methodologies (e.g. ISO 9001:2015).

5.2 Requirements for the Contractor's Personnel

In addition, the Contractor's personnel performing the Work must have at least the following qualifications:

1. Master's degree in a scientific or technical discipline with an emphasis on computing.
2. A minimum of three (3) years of professional experience within the last 5 years implementing web-based solutions with backend in Java.
3. A minimum of three (3) years of experience within the last 5 years designing and developing data access layers as well as physical data models for data driven applications. Practical knowledge of Oracle or PostgreSQL RDBMS.
4. A minimum of three (3) years of experience within the last 5 years of using Liferay Portal on a daily basis. Proven proficiency in developing and managing web portals, with a strong focus on ensuring compliance with Java Portlet Specification (JSR 168/286/362).
5. A minimum of three (3) years of professional experience within the last 5 years in developing React JavaScript frontend, preferably for the Liferay portal.

6. A minimum of three (3) years of experience within the last 5 years implementing and designing Web Services (SOAP/REST).
7. Minimum three (3) years of recent experience using Linux (preferably Red Hat Enterprise Linux) as a software development platform.
8. A minimum of two (2) years of experience within the last 5 years working with Elasticsearch. Knowledge of the Elastic Stack (Elasticsearch, Logstash, Kibana, Beats) and hands-on application of monitoring and observability concepts is an asset.
9. At least two (2) years of experience working with message queues and brokers, including knowledge of technologies such as RabbitMQ and Apache Kafka, enabling efficient and reliable messaging in distributed systems.
10. Proficiency in Apache Airflow with hands-on experience over the past two (2) years, including experience developing Apache Airflow Directed Acyclic Graphs (DAGs) using Python.
11. A minimum of three (3) years of continuous experience in software architecture, including knowledge of object-oriented design principles and proficiency in implementing design patterns.
12. A minimum of two (2) years of experience within the last 5 years in providing software development services using an Agile methodology, preferably Scrum or Kanban.
13. A minimum of two (2) years of experience with writing unit, integration and regression tests
14. A thorough understanding of DevOps principles is essential, along with at least two (2) years of proven experience building CI/CD pipelines using GitLab.

The Commission's software which produces the data products is comprised of a set of highly complex applications with real-time processing constraints. The amount of domain knowledge that a software engineer needs to acquire to effectively perform this work is extensive. For this reason, continuity of staff throughout the contract is very important to the Commission.

5.3 Resources Provided by the Commission

The Commission's software standards (available upon request) and guidelines must be followed for all modifications or enhancements.

Modifications to documentation and new documentation must conform to the Commission's software documentation standards and templates.

The Contractor shall clearly describe the content, terms, conditions and cost (if any) of all warranties and guaranties. A big advantage for Contractor will be the provision of a minimum 2-year guarantee for the completed task.

5.4 Maintenance of Third Party Software

The Commission shall be responsible for the maintenance and updates fees of any installed 3rd party software acquired and used to implement any enhancement. For software introduced by the Contractor, this is subject to prior approval by the Commission's staff at the progress meetings.

For designated Contractor Personnel the Commission will provide:

1. Remote access (Cisco VPN + SSH) to designated computer systems (servers) and software configuration management (version control);
2. During on-site work: workstation, access to Internet, stationery supplies
3. Physical access to selected areas of the Vienna International Centre; however, strict conditions and limitations on access and use of any accessed code or documentation described above will apply as contained in the Contract. Access will be granted only upon request and approval by the relevant internal bodies.

4. The Commission will make the relevant source code, necessary sample data and documentation available to the Contractor.
5. The Commission will make qualified staff available to assist and cooperate in responding to information requests from the Contractor in order to allow the Contractor to carry out the Work.

All other resources are to be provided by the Contractor.

6 DELIVERABLES

A summary of Deliverables for the Work, detailed in the above sections.

6.1 Delivery of Enhancements

For each requested enhancement, the Contractor shall deliver:

1. A complete set of code to implement the change (via 'GitLab' or as otherwise agreed).
2. Any required documentation or change/update to existing documentation that may cover the modified software or behaviour of the web system.
3. Configuration and Installation information required with each enhancement.

6.2 Delivery of reports

At regular meetings, the Contractor shall submit to the Commission a summary report on the satisfactory completion of the particular on-request service(s), including, without limitations, detailed description of all work performed, review of all project activities, lessons learned and recommendations.

Additionally, report on the total person hours/days worked per task per WO should also be submitted and is subject to review and acceptance by the Project Manager.

The deliverables and both reports, after being evaluated under reasonable performance criteria and accepted as satisfactory by the Commission, will form the basis for invoicing and payment of a particular on-request service performed under a Work Order.

6.3 Meetings

If requested by the Commission in a Work Order, upon completion of the on-request service(s) under the Work Order, the Contractor may be required to provide an oral presentation (including slides/handouts as required) to the Commission at its Headquarters in Vienna.

As outlined in section 2.10, the Contractor shall participate in regular meetings to review Work Orders and progress. As far as possible, some of these meetings may be replaced by virtual meetings via remote meeting facilities, such as video conferencing equipment, as agreed by both parties.

7 RISK MANAGMENT

The Contractor shall provide a thorough risk assessment plan at the project's commencement to identify potential risks that could impact the successful execution of the outlined software development activities in these Terms of Reference. Risks may include but are not limited to technical challenges, changes in project requirements/scope, resource constraints, schedule delays, integration difficulties, and third-party software dependencies. The risk assessment plan should be consistently updated, aligning with the delivery of project milestones or significant accomplishments.

Upon the project's satisfactory completion, the Contractor is obligated to conduct a final review of the initially identified risks. Risks that have been effectively mitigated or did not materialize should be officially closed, accompanied by appropriate documentation. The insights gained from the risk management process should be methodically documented and shared with the Commission, thereby contributing to the knowledge repository for forthcoming software development endeavours.