Scope of Work to
Develop a Proof of Concept (PoC)
for Distributed Ledger Technology (block chain services)

A.1   Purpose

The purpose of this Scope of Work (SOW) is to obtain vendor support to develop a proof of concept for DLT (Distributed Ledger Technology a.k.a. block chain services), automated machine learning technology, and/or artificial intelligence-based exchange implementation that will assist UNDP to manage the sourcing, rostering, and deployment of "Individual Contractors" in UNDP's Asia-Pacific Region. UNDP seeks to intelligently automate the current manual processes by utilizing DLT, automated machine learning, and/or artificial intelligence-based technologies. A key objective of this initiative is to reduce the amount of human interaction required to review all related documentation, improve user experience, and reduce the time for the entire process cycle.

A2.   Background

UNDP Bangkok Regional Hub and Country Offices (COs) across the Asia Pacific region hire Individual Contractors (ICs) for their external expertise to help in delivering UNDP development programs and other needs. For reduced transaction time, efficiency and speed of recruitment, the hub and the COs have established rosters of these contractors.

A roster of ICs is a list of individuals who have been vetted against a specific criterion in terms of areas of expertise and years of experience, there are multiple such lists, one would be a list covering all international consultants for the region, and individual lists of national consultants for each CO.

At present UNDPs rosters in the region are managed on excel lists, given the various aspects of roster management and use, this has proven to be laborious and time consuming.

The platform is intended to be an integrated platform for management of Individual Contractors (ICs) on a Roster, with candidate self-registration, vetting by UNDP policy advisors, account provisioning, setup of different country offices and categorization handled by the Roster Manager. To enable roster manager to create rosters for different country offices (COs), source, search and issue contracts on one single platform and capture performance evaluations.

A.3   System requirements

Develop a proof of concept program to implement DLT, automated machine learning technology, and/or artificial intelligence for single source of evidence in a permissioned network of authorized node and DLT-based role management and mapping to existing business roles. The solution must:

a) Include a design concept of the proposed solution which may include, but not limited to, design concepts such as wireframe, mockup, customer journey, etc.; demonstrating potential benefits.
b) Be cryptocurrency agnostic and not monetize mining.
c) Operate within an open source, open platform and open data to maximize interoperability with UNDP's existing systems like PeopleSoft, SharePoint, Microsoft Cloud, etc.
d) Have the ability to configure smart contracts based on multiple decision rules and workflows.
e) Integrate disparate IT systems.
f) To the extent possible, use machine learning algorithm(s) to enable evaluation results of new vendors and or rostered consultants.
g) Demonstrate a secured solution including identity.
h) Scalable.
i) Developed and tested in selected vendor's platform.
j) Automate the process listed in Annex 1.

The proposed solution must include a maximum of three-months period for testing and demonstration of the functionality of the proof of concept and the contractor shall provide electronic access to completed deliverables to designated UNDP staff/personnel.

A.4   Guidance on price proposal

a) The contract price is a fixed output-based price contract.
b) The vendor must include all cost components in the computation of contract price (e.g., purely professional fee, or inclusive of travel, living allowance.)
c) The vendor must quote proposal price as per the template provided in Section 7, including a breakdown of costs.
d) Thailand based bidders must not quote anything apart from professional fees.

A.5   Performance location

The primary place of performance for the Contract will be the selected vendor's facilities. In addition, considering the expected iterative development process, UNDP requires the selected vendor to deploy, at a minimum, two of their personnel at UNDP premises in Bangkok, Thailand where Office space and internet connectivity will be provided at no cost.

A.6   Duration and deliverables

The maximum duration of the project is 3 months from the date of contract signature, as per the following milestones:

S. No.	Milestone	Duration	% of Payment
1.	Software Requirement Specification (SRS) document and wireframes of application developed.	2 weeks	10%
2.	Development and delivery of module 1 (User Roles, Candidate Registration, Candidate Vetting) on demo server	2 weeks	10%
3.	Development and delivery of module 2 (Candidate Search, solicitation and Selection) on demo server, and fixing of bugs identified	2 weeks	15%
4.	Development and delivery of module 3 (Contracting) on demo server, nd fixing of bugs identified	2 weeks	15%
5.	Development and delivery of all reports, and all system bugs fixed	1 weeks	15 %
6.	UAT testing within UNDP identified group and fixing bugs and requested modifications	2 weeks	15 %
7.	Porting of application to UNDP environment	1 week	20%

INDICATIVE REQUIREMENTS

1. USER ROLES

The platform would be managed and used using various user roles, for administration of the system, managing roster lists, vetting, searching, and selecting individuals on a roster. A complete list of user roles required will be shared with the vendor, during the consultation and drafting of the Software Requirement Specification document.

2. REGISTRATION

- Interested individuals would need to register themselves on the platform and create a profile.
- The candidate profile would capture all information as per Annexure A
- In addition to this profile, the candidate would choose which roster they are applying for, mark their areas of expertise (Annexure B) as defined for the regional list or the specific CO list.
- Once the user profile is created, it should be exportable in a .doc/.pdf format as per Annexure A
- For some rosters, there are existing vetted candidates with assigned bands (as per years of experience, and areas of expertise). This list will be provided by UNDP.
- These lists would need to upload to the platform, and accounts created for each candidate with one time use passwords
- These candidates need to be sent an invitation from the system to login and complete their profile.
- The candidates would need to enter a propose daily fees in USD or currency as defined by the Roster Manager.
- In addition to the information in Annexure A, marking areas of expertise the candidates would need to update their availability, which would be a date range.

3. VETTING

- Individuals who create their profiles on the system, need to be vetted for their experience in the claimed areas of experience.
- The roster manager (for each list) would assign evaluators for each area of expertise.
- Once the candidate has marked/claimed their area of expertise, the request for vetting along with all profile information (read-only) shall be routed to the assigned evaluator.
- In the case where a candidate has selected multiple areas of expertise the profile would be forwarded to assigned evaluator for each area of expertise.
- The evaluators would review the candidate profile and experience and decide whether the candidate is to be included in the roster for a specific area of experience based on the specific criteria.

- This criterion would be different for each CO.
- The system would maintain a list of all candidates vetted for one or more areas of expertise, which would be searchable by area of expertise and years of experience.
- The evaluators in discussion with the roster manager may choose to cap the proposed daily fees of the candidate.
- Once the vetting is completed, the system would send an e-mail notification to the candidate informing them of their inclusion in the roster for a specific area of expertise and daily fees.
- The email message should include a hyperlink for the candidates to accept their inclusion or not.

4. PROFILE SEARCH, SOLICITATION AND SELECTION.

- Once the need for an individual contractor arises in the CO, the requestor would prepare terms of reference and search for the candidates on the system.
- Requestor should be able to search for candidates based on, areas of expertise, years of experience and availability, either in the regional list or the CO list.
- Only candidates who have expressed their availability in the period mentioned in the terms of reference should be included in the search, this would be 'shortlist' for an assignment requirement.
- The shortlist needs to be logged for an audit trail with details of candidates matching the search criteria.
- The requester should be able to contact the candidates on the shortlist to solicit offers for the assignment, through the system with a specified deadline.
- Shortlisted candidates should get an email from the system, alerting them of the opportunity and a link within the email to logon the system and respond to the solicitation.
- For each solicitation, the consultants would need to respond with certain information as per the confirmation of interest and availability (Annexure C).
- Candidate is able to enter this information only until the specified deadline, the deadline would either be the default period in terms of business days as specified by the roster manager for the list, or more editable by the requestor.
- After the deadline, all received offers from the candidates would be evaluated by an evaluating committee.
- Members of the evaluation committee to be assigned by requestor.
- Standard format for evaluation (Annexure D) to be made available to the requestor, and fields marked in red, editable by requestor before being sent to the evaluation committee.
- Evaluation committee members to enter scores per criterion individually along with comments, once all members have entered their scores, the system to calculate average scores and calculate ranking of the candidates.
- Final evaluation to be made exportable as .pdf.

5. CONTRACTING

- Post candidate selection, the contract issuance for a requirement would be done via the system.
- Contract would only be issued to the recommended candidate on the evaluation
- There would be one contract manager/supervisor assigned for each contract.

- Contract issuance to be done via a form on the system as per the UNDP contracting template (Annexure E)
- System generated contract to be routed for internal signatures and for signatures of the candidate.
- UNDP is in the process of implementing a e-signature solution and details will be shared with the vendor in due course.
- The system should integrate the digital signature solution via SharePoint, or APIs, as required.

6. PERFORMANCE EVALUATION

- Upon completion of each assignment, the contract manager would conduct a performance evaluation.
- Format for performance evaluation to be provided by UNDP at the SRS stage.

7. REPORTS

- Formats for standard reports for each list to be shared with the vendor during this phase
- Formats for standard aggregated reports for the system usage and performance to be shared with the vendor during this phase.
- Vendor to enable dynamic custom reports for system administrator and roster manager(s) to generate reports.