



**UNITED NATIONS DEVELOPMENT PROGRAMME**  
**TERMS OF REFERENCE/Individual contract**

**I. Job Information:**

Job Title:	International consultant on Application of Blockchain Technology in Public Service Delivery
Type of contract:	Individual contract
Project Title/Department:	Improved Public Service Delivery and Enhanced Governance in Rural Uzbekistan/Cluster on Good Governance, Policy and Development
Duration of the assignment:	25 working days upon signing a contract by both sides
Assignment location:	Home based (with one-time travel to Uzbekistan)
Expected places of travel:	5 working days, Uzbekistan
Work status (full time / part time):	Part-time
Reports To:	Project Manager

**II. Background**

"Improved Public Service Delivery and Enhanced Governance in Rural Uzbekistan" is a joint project conducted by the Ministry of Justice of the Republic of Uzbekistan and the United Nations Development Programme (UNDP), funded by the European Union. The overall goal of the project is to improve the quality of life of vulnerable sectors of the population in rural areas – such as women, youth and children, the elderly and people with disabilities – by enhancing their access to public services, and the quality of their provision. Equally, the project aims to strengthen citizen participation in the decision-making processes at the local level and increase their access to information, effectively increasing the transparency of the local governance system.

In accordance with the Activity 1.7 of project: "Prototyping blockchain-based solutions in public service delivery. A policy paper will be produced on how to introduce blockchain technologies to public service delivery. Research will be conducted to explore the opportunities for distributed ledger technologies in the transformation of selected public services, to be provided in pilot regions, for ensuring integrity, trust and transparency of service-related data and associated transactions; for example, in land registries, business registries, notary services, etc. This policy paper is expected to provide real life insights into the viability of such technologies, as well as to identify the legal and policy implications of rolling out distributed-ledger technologies in the country. In addition to research and feasibility studies, analysis, prototyping blockchain-based solution in public service delivery will be undertaken. To this end, local and international consultants (technical writers, business analysts and blockchain experts) will be recruited, servers & IT equipment for piloting blockchain solutions will be procured."

The UN in Uzbekistan (namely, UNDP, UNICEF and UNODC) joined forces, with support from the UN Development Coordination Office, to explore how blockchain can limit corruption in national public and private sectors and chose two areas of focus: School certificates and Land cadaster. The UN team created a web service for the Ministry of Public Education (MPE) to create digital records of the issued certificates and a private blockchain to make sure that the records in the data based are not manipulated through the publicly accessible service for online certification. At the moment, the web service is integrated with the

private blockchain deployed on the MPE servers and running preliminary tests within the agency itself. UN team along with the state cadaster committee, developed a demo blockchain application that prevents the unauthorized manipulation of the real estate data in the central government database. Citizens are also able to verify their property records online through a public portal making the agency's activity more transparent. The blockchain app is being deployed in the committee's servers and is undergoing internal tests. The next is to pilot the implementation of the blockchain system with real data. To advance these applications beyond the pilot stage, UN team is working with national partners to establish an enabling institutional and regulatory framework.

Government and policy makers in public service delivery require a deep understanding of blockchain technology in order to develop policy and regulatory frameworks. Dissemination of information between government and innovators is crucial to determining the most appropriate regulatory framework and supporting innovation in public service delivery. This should include: government consultation with the blockchain industry (particularly start-ups) to ensure that they understand and adhere to regulations in Public service delivery system; blockchain industry members communicating the regulatory challenges that are preventing them from succeeding; and, educating government and the broader community so that they may understand the blockchain industry.

According to a Presidential Decree signed July 3, 2018 "On measures to develop the digital economy in the Republic of Uzbekistan", from 2021 blockchain will be incorporated into Uzbekistan's government transactions to improve public services and ensure transparency and accountability, blockchain technologies and platforms were identified as key factors in the development of the digital economy, and the government was instructed to create an enabling environment for the implementation of blockchain solutions.

The International consultant on Application of Blockchain Technology will support the Project Team in the development of Analytical paper on the introduction of blockchain technology to Public Services Delivery system of Uzbekistan.

The project provides its support in the formation of the "Unified Electronic Archive of Civil Status Records" IS based on the use of blockchain technology. Also, due to the creation and implementation of a single electronic archive of civil status records, it will be possible to control the actions of civil registry offices, coordination of work and informational exchange between them, as well as simplify the mechanism of interaction between government bodies.

Under the overall supervision of the Project Manager and in close cooperation with the Task manager on Public Services Delivery Legislation and ICT Associate the International consultant will perform the following functions in order to produce the expected outputs. He/she will support the project team in all aspects of the introduction of blockchain technology to public services and public administration reform, sequencing of interventions, monitoring and evaluation.

### **III. Functions / Key Outputs Expected**

Key functions:

- Desk review of current state of public service delivery system of Uzbekistan identifying needs and strategies for the introduction of blockchain technology;
- Provide real-life insights into the viability of distributed ledger technologies, as well as to identify the legal, social-economic and policy implications of rolling out distributed-ledger technologies in the country;
- Conduct a research on preparing a new approach for Uzbekistan to applying the blockchain technology in public service delivery system including identification of funding opportunities and

provision of support in navigating regulatory frameworks based on experiences of other countries and consolidating lessons learned;

- Assess the development of blockchain over the past 12 months and delve into some of the specific challenges to implementation and adoption, investigate uses of blockchain in public services, highlighting the work of the other countries;
- Discuss with Public Services Agency, UNDP and interested parties (policymakers and industry experts) in the country on the advantages of the introduction of blockchain technology in public services delivery, upcoming issues with senior-level and share best practices identified in public blockchain initiatives across the world, discuss progress towards a global policy framework, as well as national-level policy developments across the world;
- Prepare an Analytical policy paper on the introduction of blockchain technology to public service delivery system of Uzbekistan;
- Organization the presentation (learning hour) of the draft, semi-final and final versions of the Analytical policy paper.

**Desk review:**

- review all project related documents in public services;
- review and explore the current system of public service delivery system of Uzbekistan to prepare set of questions to be responded by the project stakeholders;
- review and explore the regulatory framework and current system of public service delivery to identify the needs for the introduction of blockchain technology;
- review of the blockchain space, perspectives on policy best practices, major developments from the blockchain global industry and developed governments, dissemination of education regarding the benefits and challenges of implementation to all relevant stakeholders as the crucial first step in discovering the policy implications of blockchain.

**Analysis of data on current changes public services delivery system:**

- based on desk review, identify current country needs and strategies and support PSA and other stakeholders in planning and implementing the introduction of blockchain technology to public services;
- advise on the preparation and update of work-plans and monitor their implementation, workload management, and performance assessment;
- request other related information that may be useful for the completion of the analysis of the system.

**IV. Timeframe and fees**

The following deliverables based on the indicative schedule are expected from the consultant. The exact dates of beginning and completion stages, as well as the scope of work for each phase can be changed by the Project Manager based on reasonable justification by the consultant. The project reserves the right, if necessary, to amend the terms of reference of the Consultant, on a written agreement. The final schedule will be agreed in the beginning of the consultancy assignment. All deliverables should be submitted to the project by the Consultant in English in e-versions and then be approved by the Project Manager and the UNDP GGC.

#	Deliverables	Timeframe	Payment
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1	Report of research on preparing a new approach for Uzbekistan to applying the blockchain technology in public service delivery system prepared and accepted by Supervisor	Not later than 2nd of November, 2020	50%
2	Report on the opportunities for distributed ledger technologies in the transformation of selected public services prepared and accepted by Supervisor	Not later than 18th of November, 2020	
3	Prepare draft version of Analytical paper describing the introduction of blockchain technologies to Public Service delivery system prepared and accepted by Supervisor	Not later than 28th November, 2020	50%
4	Final version of Analytical paper describing the introduction of blockchain technologies to Public Service delivery system with addressed comments and feedbacks received from the Project Team and experts of key stakeholders prepared and accepted by Supervisor	Not later than 28th December, 2020	

This is a lump sum contract that should include costs of consultancy and other costs required to produce the above deliverables. Payment will be released in 2 (two) instalment (50%/50%) upon the timely submission of the above-mentioned deliverables respectively and following their acceptance by Project Manager and UNDP GGC.

#### V. Qualification Requirements

Education:	Master's Degree in Digital Economy, ICT Technology and/or Project Management.
Experience:	<ul style="list-style-type: none"> <li>• Minimum 3 years of experience in Blockchain market landscape and ability to conceptualize business strategies;</li> <li>• Strong understanding of Blockchain/DLTs as a concept, including a deep understanding of the underlying technology and architecture and an ability to define future state architectures.</li> </ul>
Language requirements:	Fluency in written and spoken English. Knowledge of Russian or Uzbek will be an advantage.
Other:	<ul style="list-style-type: none"> <li>• Understanding of the public services delivery system;</li> <li>• Conceptualizing solutions using Blockchain/DLT in public services;</li> <li>• Deep understanding distributed ledger systems such as Cordba, Ethereum, Hyperledger, Multichain, Openchain, etc.;</li> <li>• supporting business development teams to conceptualize and develop relevant use cases, proof-of-concepts (POC), and proof-of-value (POV) and support proposal writing activities;</li> <li>• The right candidate for this assignment will be innovative thinkers, well-versed in developing solutions that improves the public service</li> </ul>

	<p>delivery system;</p> <ul style="list-style-type: none"> <li>• Excellent analytical and interpersonal skills including oral and written communication;</li> <li>• Demonstrated programme management skills including; results-based orientation, preparation of work plans, monitoring and evaluation and leading cross-cultural teams;</li> <li>• Previous experience in performing a similar role in UNDP would be an advantage.</li> </ul>
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UNDP is an equal opportunity employer. Qualified female candidates, people with disabilities, and minorities are highly encouraged to apply.

**VII. Signatures-Post Description Certification**

Incumbent *(if applicable)*

Name	Signature	Date
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Supervisor

Abror Khodjaev, Project Manager	Signature	Date
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