<u>**REQUEST FOR EXPRESSIONS OF INTEREST**</u>

<u>**(CONSULTING SERVICES – INDIVIDUAL CONSULTANT SELECTION)**</u>

Country: Pakistan

Name of Project: Digital Economy Enhancement Project

Credit No: 7514-PK

Assignment Title: Cloud Native Software Architect

Reference No.: PK-MoITT-469377-CS-INDV

The Government of Pakistan has received financing from the International Development Association (IDA) toward the cost of Digital Economy Enhancement Project (DEEP) and intends to apply part of the proceeds for consulting services, which shall be implemented by the Ministry of IT and Telecom.

The consulting services ("the Services") include professional expertise of **"Cloud Native Software Architect"** at a monthly lump sum remuneration. The Ministry of IT and Telecom, being Project Management Unit (PMU) intends to hire services of **"Cloud Native Software Architect"** for DEEP that can assist the project management in relevant field. The consultant, as an expert in the field, will provide quality advice maintaining the highest degree of integrity and ethical standards. The services of individual consultant shall be initially hired for a period of 24 Months.

The detailed Terms of Reference (TOR) for the assignment can be obtained at the address given below or can be downloaded from https://njp.gov.pk

Ministry of IT and Telecom being Project Management Unit invites eligible candidates ("Consultants") to indicate their interest in providing the Services as **"Cloud Native Software Architect"** in Digital Economy Enhancement Project. Interested Candidates should provide information demonstrating that they have the required qualifications and relevant experience to perform the expected Services. The services of individual consultant will be required /hired to assist project team on DEEP as per ToRs. The short-listing criteria are based on: (i) Qualification, (ii) Experience (iii) Additional Skills

The selected candidates will be required to present their original documents at the time of the interview. Submission of any false information will lead to immediate disqualification of the candidate at any stage of the hiring process.

The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" September 2023, setting forth the World Bank's policy on conflict of interest.

A Consultant will be selected in accordance with the Open Competitive Selection of Individual Consultants method set out in the Procurement Regulations.

Further information can be obtained at the address below during office hours 0830 to 1630 PST.

Applicants shall apply online at National Job Portal www.njp.gov.pk.

Program Office (DEEP)

Ministry of IT and Telecom

7th Floor, Kohsar Complex

Pakistan Secretariat

F-5, Islamabad

Telephone: 051-9215621

Hiring for Individual Consultants Under DEEP

<u>TERMS OF REFERENCE</u>

Announcement Reference no:	1-1/2024-IT		Date	12 January 2025
Project	Digital Economy Enhancement Project (P174402)			
Position Name	Cloud Native Software Architect		Position ID	PK-MoITT-469377-CS-INDV
Vacancy	1	Type of Contract	Individual	Duration	24 Months

BACKGROUND

Digital Economy Enhancement Project (DEEP) is a World Bank assisted project with the objective to enhance the Government's capacity for digitally enabled public services delivery for citizens and businesses.

MoITT is the sponsoring agency of the project with execution support of (i) Board of Investment (BoI), (ii) National Database and Registration Authority (NADRA), (iii) National IT Board (NITB), and (iv) Ignite – National Technology Fund.

PROJECT DESCRIPTION

The Digital Economy Enhancement Project (DEEP) aims at building the capacity of the Government to provide digitally enabled public services to citizens and businesses. The project will support the development of digital public infrastructure—including for responsible data exchange, digital authentication, and verifiable credentials—and digitalization of public services (including to make them available through a new national citizen portal), which will improve the accessibility and delivery of services, economic opportunities, and social protection.

In addition, DEEP will support a transition towards a digital inventory of administrative procedures and the development of an electronic single window—the Pakistan Business Portal (PBP)—integrated across all three layers of government for new and existing businesses to

apply, renew, pay, and meet all their compliance needs It will also promote civic innovation and digital inclusion.

OBJECTIVES OF THE ASSIGNMENT

The Cloud Native Software Architect will be responsible for designing, implementing, and overseeing the cloud-native architecture aligned with DEEP's objectives. The architect will ensure the development of scalable, secure, and resilient cloud solutions that integrate with existing government systems, enhancing the delivery of digital public services and administrative processes.

The responsibilities include (but not limited to) the following:

1) Develop and implement cloud-native architectural frameworks to support the digitalization of public services under DEEP, ensuring scalability and interoperability across government platforms.

2) Design a robust cloud environment that ensures high availability and resilience, meeting the evolving needs of DEEP's stakeholders and objectives.

3) Collaborate with cybersecurity teams to embed advanced security protocols into cloud-native applications, safeguarding sensitive data and ensuring compliance with international data protection standards.

4) Work closely with project stakeholders, including BoI, NADRA, NITB, and Ignite, to ensure seamless integration of cloud-native solutions with existing infrastructure.

5) Oversee the development and deployment of microservices and containerized applications to ensure agile service delivery and efficient resource utilization.

6) Create and maintain technical documentation, including cloud architecture diagrams, integration protocols, and best practice guidelines.

7) Evaluate emerging cloud technologies to recommend and implement innovative solutions that align with DEEP's goals for digital transformation.

8) Provide training and mentorship to government personnel on cloud-native technologies and best practices to ensure sustainability and skill development within the DEEP framework.

SCOPE OF THE ASSIGNMENT

The work of the Cloud Native Software Architect will include the following tasks, among others:

1) Architect and implement scalable cloud-native solutions that align with DEEP's objectives and government IT infrastructure.

2) Establish cloud-native design principles, including microservices architecture, container orchestration, and serverless computing, to enable agile service delivery.

3) Integrate cloud solutions with the Government Interoperability Framework (GIF) to ensure seamless data sharing and process automation.

4) Ensure robust security measures and compliance with global data protection regulations, such as GDPR and local standards, are embedded in the cloud architecture.

5) Collaborate with government agencies, project teams, and external consultants to ensure cloud adoption meets DEEP's digital service delivery requirements.

6) Create comprehensive technical documentation for cloud-native solutions, including architecture blueprints, operational procedures, and governance protocols.

7) Conduct workshops and training sessions to build the technical capacity of government teams involved in cloud deployment and management under DEEP.

QUALIFICATION AND EXPERIENCE

1) Minimum 16 years of education from a reputable/HEC recognized university in Computer Science, Information Technology, Software Engineering or a related field.

2) Minimum 15 years of professional work experience in software architecture, with a focus on cloud-native application development, microservices, and containerization.

3) Demonstrated expertise in designing, implementing, and managing cloud platforms such as AWS, Azure, or Google Cloud.

4) Proficiency in cloud-native technologies, including Kubernetes, Docker, and serverless computing frameworks.

5) Strong understanding of DevOps principles, CI/CD pipelines, and infrastructure-as-code tools like Terraform or Ansible.

6) Experience in integrating cloud solutions with existing IT systems in large-scale projects, preferably in government or public sector environments.

7) Familiarity with security best practices for cloud environments, including identity and access management, data encryption, and compliance standards.

ADDITIONAL SKILLS / EXPERTISE

1) Excellent communication skills for effective engagement with technical and non-technical stakeholders.

2) Strong analytical and problem-solving skills, with the ability to translate complex technical concepts into practical solutions.

3) Experience in project management methodologies and tools to ensure efficient resource coordination and timely project delivery.

SCHEDULE FOR THE ASSIGNMENT

The Cloud Native Software Architect will be appointed on a contract basis for a period of 24 months.

REMUNERATION AND OTHER BENEFITS

1) The consultant will receive remuneration as per the scope of work defined and based on the World Bank guidelines applicable to individual consultants for this position.

2) Travel expenses as approved by the World Bank and the Government of Pakistan.

3) This is a consulting-based appointment and does not offer medical or other benefits.

REPORTING OBLIGATIONS

1) The Cloud Native Software Architect will report to the Program Director PMU, Ministry of IT & Telecom.

2) Cloud Native Software Architect is required to follow all rules and directives of the World Bank and the Government of Pakistan for successful implementation of the project.

3) The Cloud Native Software Architect is required to follow working days and timings as per the directives of the Federal Government of Pakistan.

4) The Cloud Native Software Architect is required to report to work in an official attire.

5) The Cloud Native Software Architect is prohibited from working for any other party or a paid job, or taking any other assignment during the course of this contract without written approval from the Competent Authority.

6) The Cloud Native Software Architect shall ensure that all the required reports for the project are prepared on time in accordance with the requirements of the World Bank and the Government of Pakistan.

SELECTION CRITERIA

1) The applicant will be selected based on the following criteria

Criteria	Points
Educational Qualification	20
Work Experience	20
Additional Skills/ Expertise	10
Interview	50

SUBMISSION

Candidates meeting the required criteria should submit their applications at http://www.njp.gov.pk within 15 days of publication of the advertisement. No hard copy of application shall be accepted and all applications must be sent via NJP online. Shortlisted candidates who are working in Government sector are required to produce NOC at the time of interview.