Request for Proposal

Integrated Disease Surveillance and Response System for Covid - 19

1.0 Introduction

1.1 Objectives of RFP

The Request for Proposal invites companies having requisite experience to participate and help the Government of Pakistan in fighting Corona by designing, developing and deploying end to end Integrated Disease Surveillance and Response System (IDSRS).

2.0 Background

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in the ongoing 2019–20 coronavirus pandemic. First confirmed case of what was then an unknown coronavirus was traced back to November 2019 in Hubei province. Common symptoms include fever, cough, and shortness of breath. Other symptoms may include fatigue, muscle pain, diarrhea, sore throat, loss of smell, and abdominal pain. The time from exposure to onset of symptoms is typically around five days but may range from two to fourteen days. While the majority of cases result in mild symptoms, some progress to viral pneumonia and multi-organ failure. As of 15 May 2020, more than 4.44 million cases have been reported across 185 countries and territories, resulting in more than 302,000 deaths. More than 1.59 million people have recovered.

The virus is primarily spread between people during close contact, [a] often via small droplets produced by coughing, [b] sneezing, or talking. While these droplets are produced when breathing out, they usually fall to the ground or onto surfaces rather than remain in the air over long distances. People may also become infected by touching a contaminated surface and then touching their eyes, nose, or mouth. The virus can survive on surfaces for up to 72 hours. It is most contagious during the first three days after the onset of symptoms, although spread may be possible before symptoms appear and in later stages of the disease.

3.0 The Approach

The Government of Pakistan has established a National Command and Operations Centre (NCOC) which is represented by military and civil representatives from all the provinces including AJK and GB. Eversince the menace, NCOC has been meeting on a daily basis and reviews datasets in detail every day to fine tune their strategy as the situation unfolds in terms of number of infections, mortality and criticality of the patients admitted in hospitals.

Provinces use variable sources to capture data - the sources of data collection can be mainly qualified as hospitals, labs, field response teams and quarantine centers. With the introduction of an all new “Track, Trace and Quarantine (TTQ)” approach and the decision of the government to move towards smart lockdowns, the need to have an IDSR centric system is inevitable. Focused on Covid-19 the system should bring multiple sources of data together so it allows NCOC and relevant decision makers to understand where and what type of response is needed and also to monitor compliance against that response.

4.0 Requirements

The document intends to engage a company which will design and implement an IDSR to help the government cope with Covid-19 using a robust and scalable system. The proposed system targets to capture or integrate with data from Point of Entry (POEs), Quarantine Centers, Hospitals, Laboratories using standardized mechanisms as decided and communicated by purchaser.. For cases where exact coordinates of a patients’ home/work location is not available, a field officer will help provide geo-location of the patient’s whereabouts using an application to be provided by the bidder. Based on statistical and spatio-temporal analysis, IDSR would identify candidate areas of quarantine based on dynamically configurable benchmark for severity. The IDSR is expected to capture or display critical information including but not limited to availability of beds, ventilators, doctors and paramedics at the nearest treatment facility. IDSR is envisioned to be used throughout the country by all provinces including GB and AJK. Provinces, however may decide to use granular applications or interface with standardized systems using APIs for which the proposed solution should accommodate.

The key features are listed below:

1. Patient reports from hospitals, labs, quarantine centers and POEs

2. Key parameters on available facilities in hospitals, labs and other sites

3. Geo-tags and timestamps of patient location

4. Space-time Statistical Scan model to automatically detect emerging disease clusters

5. Real-time dashboards to assist NCOC in taking decisions pertaining to Covid - 19 based on disease instances, contact tracing input, compliance of SOPs , vulnerable age groups, availability of critical resources and other parameters.

6. Integratable interfaces with existing systems as operational in provinces and/or federal government to feed into central decision support dashboards

7. Field response mobile APPs to automatically push notifications to concerned officials to conduct survey and report compliance to SOPs

8. Disease clusters/hotspots analysis using high-definition (down to 100m^2 blocks), population data, with demographic disaggregation where required

9. Time-Series Susceptible-Exposed-Infected-Recovered (TSEIR) model to forecast patients for emerging hotspots

10. Automated advisory notifications to provinces/districts

11. Real-Time dashboard for compliance of lockdown

12. Checklist of compliance (tests conducted, shops closed, area sealed, disinfection completed)

13. Monitoring of new cases

4.1 Provisioning of Servers

Hardware infrastructure will be made available by the purchaser based on sizing provided by the bidder in the response to RFP.

4.1 Delivery Timeline

IDSR will have to be delivered per following delivery schedule:

Description	Timeline

Business and Product Requirements Document - Sign Off	1 Weeks of Award of Contract
UAT	2 Weeks of Award of Contract
Go-LIVE	3rd Week of Award of Contract
Support	3 Months

4.2 Trainings

The bidder must provide user and technical training to the individuals nominated by the purchaser.

4.3 Customizations Support and Maintenance

Bidder will provide customizations, support and maintenance services for three months, extendable for another 12 months based on availability of funds and requirement.

4.4 Project Handover

Upon expiration of the contract, the bidder will handover user files and operational manuals of the system developed to the technical team of Purchaser.

5.0 Instructions to Bidder

5.1 Language of the Proposal

The proposal prepared by the bidder, and all correspondence and documents relating to the proposal exchanged by the bidder and Purchaser shall be written in the English language.

5.2 Cost of Proposal

The bidder shall bear all costs associated with the preparation and submission of the proposal, including but not limited to the possible cost of discussing the proposal with purchaser, making a presentation and/or any related travel. The Purchaser will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the selection process.

5.3 Contents of Proposal

Proposals must offer the total requirement. Proposals offering only part of the requirement may be rejected.

5.4 Validity of Proposals

The offer outlined in the proposal must be valid for a minimum period of 90 calendar days after the closing date for submission of proposals.

5.5 Amendment in RFP

Purchaser may, at any time before the closing date, for any reason, whether on its own initiative or in response to a clarification requested by a (prospective) bidder, modify the RFP by written amendment.

5.6 Proposal Structure

5.6.1 Executive Summary

The bidder's proposal must be accompanied by an Executive Summary introducing the proposed solution and approach / methodology.

5.6.2 Information about Bidders

Bidders must provide the following information.

Information Required
1. Company Information
1.1 Corporate information
1.1.1 Company mission statement (including profit or not for profit status)
1.1.2 Service commitment to customers and measurements used
1.1.3 Accreditations
1.1.4 Organization structure
1.1.5 Geographical presence
1.1.6 Declared financial statements for the past (2) two years, or if existing for less than 2 years, for the duration of existence

1.2 Legal Information
1.2.1 History of Bankruptcy
1.2.2 Pending major lawsuits and litigations in excess of USD 100,000 at risk
1.2.3 Pending Criminal/Civil lawsuits
2. Experience and Reference Contact Information
2.1 Relevant Contractual relationships
2.1.1 Relevant Contractual projects
2.2 Relevant Project Names (list and provide detailed examples of relevant experience gained within the past five years of the issuance of this RFP that demonstrate the Contractor's ability to satisfactorily perform the work in accordance with the requirements of this RFP).
2.2.1 Relevant Project Description
2.2.2 Reason for relevance (provide reason why this project can be seen as relevant to this project)
2.2.3 Roles and responsibilities (list and clearly identify the roles and responsibilities for each participating organization)
2.2.4 Status of aforementioned projects (under development / implemented)
2.2.4.1 Client's Role and Responsibility: Inputs from beneficiary
2.2.4.2 Contractor's Role and Responsibility: role in project
2.2.4.3 Third party Contractors' Role and Responsibility: previously specified 3rd party role in project
2.2.5 Team Members (indicate relevant members of the team that will also be used for this project)
3. Staffing information
3.1 Number and Geographical distribution of staff
3.2 Staff dedicated to the Project
3.2.1 Name and profile of each team member
3.2.2 Structure of the team, and role of each member in the project
3.2.3 Planned time to be dedicated to the project
3.2.3 Contingency plans in the event of a vacancy

5.6.3 Proposed Solution

The proposed solution should follow and specify the below listed generic steps for framing the overall project.

Clarification of detailed features and functionality

1. Mockups of input and output user interface
2. Approach for the development of core algorithms
3. Description of use cases
4. UAT Methodology
5. Overall timelines

5.6.4 Financial Proposal and Price Table

The financial proposal should include a listing and costing of all activities inclusive of taxes.

Sr No	Description	Per Month Cost	No of Months	Total in PKR
1	Enterprise License (Perpetual)	N/A	N/A	
2	Annual Recurring Cost	N/A	N/A	
3	Support and Maintenance		3	
Grand Total				

The payment will be made within 30 days after receiving the invoice per following schedule.

Milestones	Payment

Business/Product Requirements Document - Sign Off	20% of Development and Deployment Cost
UAT	40% of Development and Deployment Cost
Go-LIVE	40% of Development and Deployment Cost
Support	To be paid on monthly basis after successful implementation of project

6.0 Important Dates

No later than 10/06/2020 the bidders shall complete and return by email to NIH at the following address:

edofficenih@gmail.com