



West Bengal Electronics Industry Development Corporation Limited

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**INVITATION FOR EXPRESSION OF INTEREST (EOI) FOR
Submission of Technical Solution for setting up of 5G Laboratory**

EOI NO.: EOT/COM/22-23/00092 DATED 06-03-2023

GM (Commercial) on behalf of West Bengal Electronics Industry Development Corporation Limited,

Invites- EOI for the above-mentioned purpose. (To be submitted Online Only)

Brief Description of Work	Tender Document Money (TDM) (Non-Refundable)	Earnest Money Deposit (EMD) (Refundable)	Last Date and Time of Tender Submission (Online)	Date and time of opening of tender online
Submission of Technical Solution for setting up of 5G Laboratory.	Rs.1000.00 (Rupees One Thousand Only) to be submitted online.	NIL	13-03-2023 12.00 HRS.	15-03-2023 15.00 HRS.

1. For Commercial Queries, Contact: Mr. Pratul Show, G.M. (Commercial) E Mail: pratul.show@webel-india.com & Mr. Kausik Halder, Assistant Manager (Commercial & Education) Email halder.kausik@webel-india.com
2. For Technical Queries, Contact: Mr. Sourav Guha Thakurta, General Manager (CIO), Email sourav.thakurta@webel-india.com & Mr.Sanjib Banerjee, Software Delivery Manager E Mail: sanjib.banerjee@webel-india.com

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1. Introduction

Information Technology & Electronics Department, Government of West Bengal has envisioned to setup 5G Laboratory that can enable different 5GC i.e 5G Core and RAN components with different levels of testing facilities like performance testing, scaling testing, component inter-operability testing between the 5G network elements. This detailed 5G Lab environment will help to simulate respective 3GPP components and facilitate different 5G use cases demonstrations & 5G application validation by creating optimized go-to-market strategies for Communication Service Providers (CSPs), OEMs with a “Lab as a service” model.

1.1 Objective

This 5G Laboratory will help in Skill development for 5G with new Technologies enablement & learning for the students & R&D associates like – 5G SBA, cloud deployment, slicing, micro-services, edge computing (MEC), automation and open source. The lab setup will also be very useful for prototype design and will enable a platform for PoC and pilot projects for the startups. This will be a futuristic 5G Lab that will catalyze the IT & Electronics ecosystem in the state and act as a beacon for the technology industry in Asia.

1.2 Proposal

West Bengal Electronics Industry Development Corporation Limited, being the nodal agency of Information Technology & Electronics Department, Govt. of West Bengal invites Technical solution from all interested and eligible parties with proven track record may submit their proposal with detailed information about the all-testing infrastructure software/ hardware and network and other infrastructure required as part of their technical solution documentation.

1.3 Guideline for the preparation of the Technical Solution

- Government will provide all necessary support for setting of laboratory like Space, Electricity, Internet and other logistic support
 - Government will provide hosting environment in West Bengal State Data Centre as per mandate and guideline of MeITY, GOI
 - Every Technical Solution will be evaluated by the Technical Evaluation Committee(if required bidder may be asked to give live demonstration of solution proposed) and upon finalization solution as an outcome of this EoI, generic Bill of Material will prepared and a EOI will be floated for on-boarding of Technology Solution Provider for setting up of the laboratory.
- Minimum expected requirement from the Technical Solution (not limited to):
 - Initial Requirement analysis-Which basically defines the mapping of the requirement of the Government vis-à-vis solution proposed. It may lead to a concept document

which helps to evaluate the solution as well define Scope of Work at the time preparation of EOI as an outcome of this EoI

- Deployment Model Selection- Based upon the choice of lab hosting model the deployment model will be selected like – server based model, VM based model, container based model, cloud hosted model – private/public Infrastructure insights: Based on the chosen deployment models for identified network elements and testing requirements, the infrastructure components like- OS/hypervisor/Server/cloud infrastructure/VPN access needs to be measured
- Identification of required Hardware and Software and their Integration plan- Incorporating different 5G network elements like- RAN, Core, Test tools etc. from different Vendors/OEM and seamlessly integrate them together is an essential step for end to end 5G Lab setup.
 - RAN Elements: Vendor/OEM specific RAN elements or radio elements. Even OpenAirInterface (opensource) can also be incorporated for a cost-effective, simplified lab creation
 - Core Elements: Vendor specific 5G Core of choice or any opensource 5G Core components (like – Free 5GC, Magma, Open 5G core) can be incorporated. Opensource will provide better flexibility, accessibility to the source code and modify for enhancements & experimentations.
 - Test Tool elements: Incorporation of one or more test tool elements are required for end to end testing like RF measurement, RAN testing, Core testing with functional, integration and performance benchmarking. This would also help in simulation and validation of different 5G use cases.
- Setting up of Test Environment :
 - Detail about the PoC environment
 - Details on the Testing Strategies
 - Selection of Test tool and Criteria
 - Testbed connectivity details
 - Technology used should be capable of being updated or aligned with advancements in future
 - Aggregation of test eco system
 - Test cases and Execution with major Use Cases
 - Web enabled software, integrated workflow management with data updating on centralized server
 - Accessibility of the lab capacity availability from anywhere in the country
 - Solution capable of working on mobile platforms
 - Data collection and reporting
 - Data Analytics facility
 - Security of data including encryption
 - Export tool to export or generate reports in other formats like csv, excel, etc.
 - History or log management (to ensure that all the actions or events are stored in the system and can be referred when required)

- Approach & Methodologies
 - This section should describe as to how the 5G laboratory will be setup through this Solution and in future how the solution will be scaled up as per the requirement of Academia, Industry, and Government towards the benefit of the citizens at large.

2. Instruction to Bidders

- A. Intending bidders may download the EOI document directly from the website <https://wbtenders.gov.in>
- B. Each bidder needs to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of EOI from the approved service providers on payment of requisite amount.
- C. The digitally signed EOI response should be submitted in the website
- D. Submission of EOI will be done as per time schedule stated mentioned in the Table 1 of this document.
- E. For any queries regarding this EOI, please contact with WBEIDC Limited contact persons as mentioned in the Table 1 of this document on or before last date of submission of queries. No queries will be entertained after this timeframe.
- F. EOI are to be submitted online to the website before the prescribed date & time using the Digital Signature Certificate (DSC). Virus scanned and duly digitally signed copies of the documents are to be uploaded.
- G. In the event of e-filing, intending bidders may download the tender documents from the website <https://wbtenders.gov.in> directly. Necessary cost of tender documents (tender fees) of Rs. 1,000 (Rupees One Thousand Only) has to be remitted through Net banking or through RTGS NEFT through the <https://wbtenders.gov.in> portal as per G.O 3975-F(Y) dated 28th July, 2016 issued by Finance department Govt. of West Bengal.

Important Dates & Fact Sheet

1.	Tender No. & Date	EOI NO.: EOT/COM/22-23/00092 dated 06-03-2023
2.	Tender Version	1.0
3.	Brief description of project	Submission of Technical Solution for setting up of 5G Laboratory
4.	Tender issuing entity	WBEIDCL
5.	Tender document Fee	Rs 1,000 (Rupees One Thousand only) through net banking or through RTGS/NEFT in the portal of the website: https://wbtenders.gov.in as per G.O 3975-F(Y) dated 28th July 2016 issued by Finance Department, Govt. of West Bengal. For details regarding payment procedure & guideline on the same, bidders are advised to follow the mentioned order and portal. Digitally signed Technical Bid , to be submitted through the website https://wbtenders.gov.in
6.	Last Date and time of submission of the queries	Date: 08-03-2023 at 4:00 PM
7.	Corrigendum (if any)	Date: 09-03-2023 at 3:00 PM
8.	Bid Submission start date & time (online)	Date: 09-03-2023 at 5:00 PM
9.	Bid Submission closing date & time (online)	Date: 13-03-2023 at 12:00 PM
10	Bid opening date & time for Technical Proposals (Online)	Date: 15-03-2023 at 03:00 PM
11	Date of Technical Presentation	Date: To be notified later on to the Eligible Bidders

3. Eligibility Criteria

Sl. No.	Eligibility Criteria	Documents to be submitted
1.	The Bidder must be a registered company to provide services tendered for and should be in existence for a minimum 03 years as a registered company having their registered office in West Bengal. Proprietorship and Partnership firms are also eligible to participate.	Copy of Certificate of Incorporation & Article of Association in case of Company and Trade License & Partnership Deed for Proprietorship and Partnership firms
2.	The applicant must have a multidisciplinary in-house technical team and expert staff available	The bidder shall submit the list and detailed CV's of key personal likely to be deployed on the project.
3.	The applicant must have proven experience of successful completion of at least 2 similar assignments in the last 5 years to the last date of submission of EOI or the applicant has experience in the providing the solutions in the field of testing in Telecom sector.	Submission of completion certificate for the same is mandatory. The completion certificate shall bear client's name and address, value of the work executed by the consultant, Start and end of the assignment.
4.	Bidder should have valid GSTIN registration number, PAN & Trade License	Attach relevant documents
5.	The bidder should have annual turnover of Rs. 5.00 Crores or more in the last financial year ending on 31st March, 2022	Audited balance sheets and profit & loss account of the last completed financial years has to be submitted.
6.	The bidder should have Aggregate Annual Turnover of minimum Rs. 15.00 crores in last 3 completed financial years. (Fy 2019-20;2020-21;2021-22)	Audited balance sheets and profit & loss account of the last three completed financial years has to be submitted.
7.	The Bidder must have a local office in Kolkata, operational for the last 3 years to render timely local support.	Copy of Trade License to be submitted
8.	The bidder should have positive net- worth in the last three (3) financial years	Certificate from Auditor and Audited has to be submitted.
9.	The bidder should not have defaulted / blacklisted / debarred regarding bad performance / delivery in any State Govt.,	Self-declaration regarding the same on the bidder's Letterhead.

Sl. No.	Eligibility Criteria	Documents to be submitted
	Central Govt. and PSUs of India at the time of bidding.	
10.	No Consortium is allowed in this bid.	Declaration in this regard needs to be submitted.

Additional Points:-

1. WBEIDC can ask for clarifications as deemed fit to assess the eligibility of the applicant and will reserve the right to disqualify any organization and shall have the right to postpone, modify, cancel, or annul the aforesaid process at any stage at its sole discretion without assigning any reason and shall bear no liability whatsoever consequent upon its decision.
2. The bidder will be evaluated based on the past experience, readiness of the solution which will be decided by WBEIDC, and will be considered to be final.

4. Terms & Condition

- A. Intending Bidders to download the tender documents from the Website <https://wbtenders.gov.in>.
- B. The applicant should submit all the necessary documents / proofs / self-declaration as mentioned in the table above to record their participation.
- C. After submission of all necessary documents as mentioned, WBEIDC will carry out an evaluation process in order to shortlist the eligible applicants.
- D. The bidder will be evaluated based on the past experience and Proposed solution which will be decided by WBEIDC, which will be considered to be final.
- E. Tender committee reserves the right to cancel the EOI process without assigning any reason to any respondent.
- F. Tender committee reserves the right to ask for any document found deficient or additional as mentioned in this EOI.
- G. The Eligible bidders (qualifying the Eligibility Criteria) would be requested to present their proposed Solution, Approach & Methodology in front of the Tender Evaluation Committee of WBEIDC at date that would be notified later on.
- H. The Bidders are requested to provide their Detailed Approach & Methodology as Per Annexure-3 Given Below
- I. The Bidders are requested to provide the detailed list items required for setting up of 5G Laboratory as per Annexure-4
- J. The Space, Electricity & Internet connectivity for setting up of 5G Laboratory would be provided by WBEIDC.

5. Covering Letter for submission of EOI – Annexure-1

(To be submitted on the letterhead of the bidder)

(Date)

To,

General Manager (Commercial),

WBEIDC,

Webel Bhavan, Block-EP & GP, Sector-V,

Salt Lake, Bidhan Nagar, and Kolkata:-700091

Ref: EOI NO.: EOT/COM/22-23/00092 Dated 06-03-2023

Sub:

Dear Sir/Madam,

We have examined the EOI document We, the undersigned, herewith submit our proposal in response to your EOI no.

_____ for

“

_____”, in full conformity with the said EOI document.

- i. We have read the provisions of the EOI document and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our EOI shall not be given effect to.
- ii. We agree to abide by this EOI, consisting of this letter, the detailed response to the EOI and all attachments, for a period of 180 days from the date of submission of the bid.
- iii. We would like to declare that we are not involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this assignment and we are not under a declaration of ineligibility for corrupt or fraudulent practices
- iv. We would like to declare that there is no conflict of interest in the services that we will be providing under the terms and conditions of this EOI.
- v. We hereby declare that all the information and statements made in this EOI are true and accept that any misrepresentation contained in it may lead to our disqualification.
- vi. We understand you are not bound to shortlist / accept any EOI you receive

Sincerely,

Signature of Authorized Signatory and Seal of the bidder

Name:

Designation:

Date:

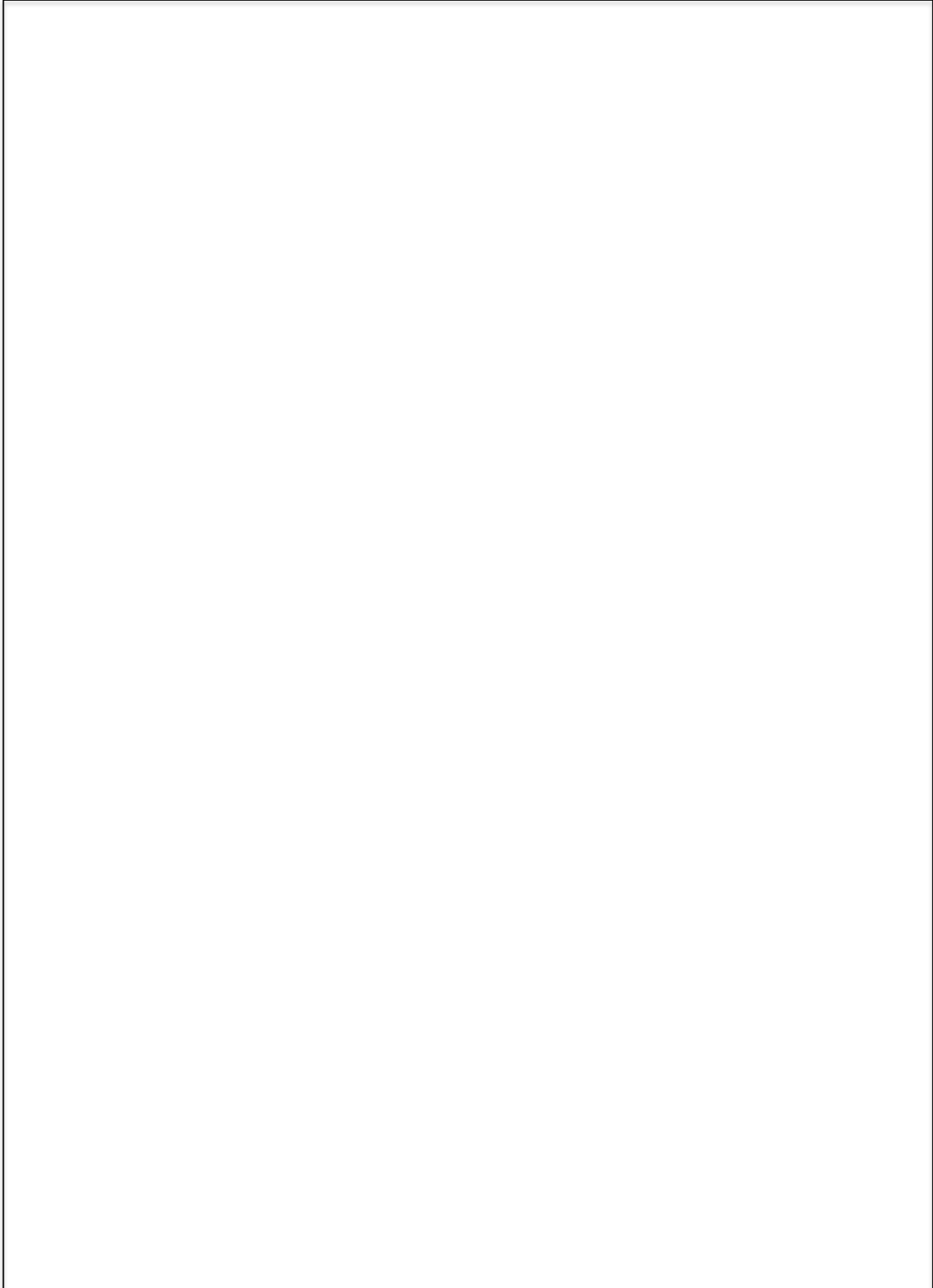
6. Details of the Responding Bidder - Annexure-2

To,
 The General Manager (Commercial)
 WBEIDC Ltd
 WebelBhavan, Block-EP & GP, Sector-V,
 Salt Lake, Bidhan Nagar, and Kolkata:-700091

Bidder information Format

#	Description	Details (to be filled by the responder to the EOI)
1.	Name of the company	
2.	Official address	
3.	Phone No. and Fax No.	
4.	Corporate Headquarters Address	
5.	Phone No. and Fax No.	
6.	Web Site Address	
7.	Details of Company's Registration (Please enclose copy of the company registration document)	
8.	Name of Registration Authority	
9.	Registration Number and Year of Registration	
10.	GST registration No.	
11.	Permanent Account Number (PAN)	
12.	Corporate Identity Number (CIN)	

**7. Details of the Proposed Solution including Approach & Methodology
(*not more than 10,000 characters summarizing approach and
methodology) - Annexure-3**



9. Available professionals- Anexure-5

The Bidder should provide the list of suitably qualified professionals to meet the requirements specified in EOI. The data on their experience should be supplied using the form below.

Brief Description of the professionals of the firm:

SL NO	NAME	DESIGNATION	EDUCATION QUALIFICATION	NO. OF YEARS OF EXPERIENCE IN TELECOM DOMAIN	TOTAL EXPERIENCE

1. Please attach CV with Photograph and educational qualification details of each key professional.