

RFP No. FSID/IOSMCN/05-07 Dated:03<sup>rd</sup> June 2024

Foundation for Science Innovation and Development (FSID)



# **REQUEST FOR QUOTATIONS (RFQ) DOCUMENT**

**FOR**

**Supply of UE log Analysis Tool for 5G Radio Access  
Network Product**

**India Open Source for Mobile Communication  
Network (IOS MCN) Project**

**Foundation for Science Innovation and Development  
IISc, Bengaluru**

**Notice Inviting RFQ**



# TENDER

NOTICE NO. FSID/IOSMCN/05-07

Dated: 03<sup>rd</sup> June 2024

BID SCHEDULE			
Sl. No.	Bid Activity	Date	Time
1	Notification	03/06/24	10:00 AM
2	Bid Query	10/06/24	5:00 PM
3	Answers to Bid Queries	12/06/24	10:00 AM
4	Submission of Bid	22/06/24	5:00 PM
5	Opening of Technical Bid	22/06/24	10:00 AM
6	Completion of Technical interaction and Demonstration of bidder's Technical Solution to the Technical Evaluation Committee	06/07/24	5:00 PM
7	Completion of Technical Evaluation	07/07/24	5:00 PM
8	Opening of financial Bid	09/07/24	10:00 AM

Pre-bid queries should be addressed to email: [smohammed@fsid-iisc.in](mailto:smohammed@fsid-iisc.in) and Cc: Vinay Kulkarni [vinay@fsid-iisc.in](mailto:vinay@fsid-iisc.in)

**Mode of Bid Submission:** Please refer to Para 5 for instructions.

**Technical Bid:** Can be submitted by email. In addition, a hard copy has to be sent to the address.

**Financial Bid:** Quotes for the product must be enclosed in a password-protected PDF file emailed to Puja Srivastava at [puja.srivastava@datakaveri.org](mailto:puja.srivastava@datakaveri.org), cc: Chethan at [chethan@fsid-iisc.in](mailto:chethan@fsid-iisc.in) or sent a hard copy in a sealed envelope @ Address: 5G Lab, Dept. of Electrical Communication Engineering, Indian Institute of Science, Bangalore – 560 012.

**Date:**

*Chandra R. Murthy*  
Chief Project Investigator

Address: 5G Lab, Dept. of Electrical Communication Engineering, Indian Institute of Science, Bangalore – 560 012

Tel. 080-2293-2464

**Chandra R. Murthy, Ph.D.**  
Professor, ECE Department  
Indian Institute of Science  
Bangalore 560 012, India



## REQUEST FOR QUOTATIONS.

### 1. INTRODUCTION

As part of the MeitY funded India Open source for Mobile Communication Networks project the procurement is being done for setting up the lab infrastructure. We seek quotations from qualified vendors for the procurement of NR UE log analysis tool to support the development and testing of 5G infrastructure. The selected devices will be utilised for processing and analysing the network log data, and to perform drive tests, along with troubleshooting and analysis capability for a variety of KPIs related to 5G NR.

### 2. SCOPE OF WORK:

Provide the 5G NR UE log analysis tool configured to meet the specifications outlined below, including all necessary hardware, software, and peripherals if required.

Deliver 5G NR UE log analysis tool, that offers scalability, reliability, and performance to accommodate future expansion and evolving project requirements. Include warranty, technical support, and maintenance services to ensure the continued operation and reliability of the device.

### 3. TECHNICAL REQUIREMENTS

Mentioned below are the specifications for the quote to be sent.

Please refer to the table below ANNEXURE-1 **Specifications**

Please refer to the table below ANNEXURE-2 **PoC (Proof of Compliance)**

Please refer to the table below ANNEXURE-5 **BoQ (Bill of Quantity)**



## 4. QUANTITY OF REQUIREMENTS

The hardware specified in the mentioned specifications, along with all contingency requirements, is required in the quantity of **1 (One)** unit. Vendors are requested to provide quotations that include the following:

**Per Unit Price:** Please specify the price per unit of the hardware, inclusive of all specified components and features, as well as any additional contingency provisions.

**Total Quantity Price:** Calculate the total price for the specified quantity of units, incorporating all contingency requirements.

## 5. SUBMISSION REQUIREMENTS

The quotation should be submitted in the form of 2 separate documents as specified below:

**1. TECHNICAL EVALUATION DOCUMENT:** This should contain the following:

- a. A checklist indicating compliance with or deviation from the above technical requirements.
- b. technical datasheet of the server which includes all or a subset of the requirements specified in the technical requirements.
- c. Certifications and compliance documentation if any should be included with the quotation.

**2. COMMERCIAL BID DOCUMENT:**

- a. Quotations should include detailed pricing, including unit prices, taxes, shipping costs, and any additional fees.
- b. Provide information on warranty terms, technical support services, and maintenance agreements.
- c. Include company profile, relevant experience, and references from past projects.
- d. Quotes for the product must be enclosed in a password-protected PDF file emailed to **Puja Srivastava** at [puja.srivastava@datakaveri.org](mailto:puja.srivastava@datakaveri.org), cc: **Chethan** at [chethan@fsid-iisc.in](mailto:chethan@fsid-iisc.in) or sent a hard copy in a sealed envelope @ **Address: 5G Lab, Dept. of Electrical Communication Engineering, Indian Institute of Science, Bangalore – 560 012.**

**Tel. 080-2293-2464**



**Foundation for Science Innovation and Development (FSID)**

e. Quotations must be addressed to

**Director,**

**Foundation for Science Innovation and Development**

**Innovation Centre, IISc Campus Near Maramma Circle gate**

**Bengaluru 560012 GSTIN: 29AAECF1802E1Z1**

**IMPORTANT:** Vendors must submit their quotations no later than the specified deadline.

## **6. EVALUATION CRITERIA**

The evaluation criteria include considering the quote and awarding with the purchase order include,

- Compliance with RFQ requirements and specifications.
- Price competitiveness.
- Vendor experience, and track record.
- Warranty and support offerings.
- Technical capabilities and compatibility with existing infrastructure.

## **7. IMPORTANT NOTES**

- The lowest-priced quotation may not necessarily be selected. Quality, reliability, and vendor reputation will also be considered.
- IOS MCN reserves the right to reject any or all quotations and to award the purchase order on its own evaluation criteria.
- Any clarifications or questions regarding this RFQ should be directed to the contact person listed above.

## **8. Delivery & Penalty notes:**

- 4 to 6 weeks from the date PO
- After 6 weeks, a penalty @1% per week for delivery delays will be applied. The maximum limit of penalty would be 10%.

**ANNEXURE-1****UE log Analysis Tool Specifications for Bidder Compliance**

<b>Technical evaluation</b>	
<b>UE log analysis tool</b>	
<b>Specifications</b>	<b>Description</b>
Supported collection of 5G layer data	Layer 1, 2 and 3
Supported display of 5G layer data	Layer 1, 2 and 3
3GPP Release	>=Rel. 17
UE Categories	5G
5G Deployment Modes	Stand Alone (SA)
Real Time decoding	Layer 3, Full packet decoding
Layer 3 protocol decoding	RRC, NAS and SIB messages.
Future analysis	Save the logged data for future analysis, Import and replay saved log data.
Support for multiple UEs per license	>=4 UEs
Display	Displays measurement of data and calls events on map in real time.
Export formats	DLF, SIG, SIGX, MSIG and CSV
Representation of data	Charts, tables, and maps
Procedure detection	Attach, Detach, Handover, drop calls, and negative scenarios.
Other post-processing features	Charting with data such as RSRP, RSCP, SINR, Ec/No, and throughput. Throughput for different layers, Replay function with search and speed control. Calculation and Aggregation of KPIs

**ANNEXURE-2****Proof of Compliance.**

<b>Seq. No.</b>	<b>Specification</b>	<b>COMPLIANCE/ Observation/Remarks</b>
<b>1</b>	Supported collection of 5G layer data Layer 1, 2, and 3	
<b>2</b>	Supported display of 5G layer data Layer 1, 2, and 3	
<b>3</b>	3GPP Release $\geq$ Rel. 17	
<b>4</b>	UE Categories 5G	
<b>5</b>	5G Deployment Modes SA	
<b>6</b>	Real-time decoding Layer 3, Full packet decoding	
<b>7</b>	Layer 3 protocol decoding RRC, NAS, and SIB messages.	
<b>8</b>	Future analysis Save the logged data for future analysis, Import and replay saved log data.	
<b>9</b>	Support for multiple UEs per licence $\geq$ 4 UEs	
<b>10</b>	Displays measurement data and calls events on map real time.	
<b>11</b>	Export formats DLF, SIG, SIGX, MSIG and CSV	
<b>12</b>	Representation of data Charts, tables, and maps	
<b>13</b>	Procedure detection Attach, Detach, Handover, drop calls and negative scenarios.	
<b>14</b>	Other post-processing features Charting with data such as RSRP, RSCP, SINR, Ec/No and throughput. Throughput for different layers, Replay function with search and speed control. Calculation and Aggregation of KPIs	



### ANNEXURE-3

#### Self-declaration is to be given by the bidder.

RFQ Reference No.

Date:

Bidder's Name &Address:

Person to be contacted:

Designation:

Telephone No:

Fax No:

Email:

To,

Director,

FSID, IISc Bangalore-560012

We, the undersigned Bidder, having carefully read and examined in detail the Terms and Conditions, specifications, and all bidding documents regarding the supply of the RAN server at FSID accept the same.

**We also hereby declare that.**

1. We have not been blacklisted/debarred by any Government/Undertaking.
2. The rates quoted are not higher than the rates quoted for the same item for any Government/Undertaking.
3. The bid submitted by us is properly sealed and prepared to prevent any subsequent alteration and replacement.

For and on behalf of the firm

(Firms Name & Address)

(Signature of Authorized  
Signatory)

Name:

Date: -----

Designation:

Place: -----

Seal

Phone No:





## ANNEXURE – 4

<b>Bidder Organisation Details Format for RFQ No. FSID/IOSMCN/05- 07Dated 03/06/24</b>		
<b>To,</b> Director, FSID, IISc Bangalore-560012		
1	Bidder Name	
2	Website Address	
3	Email Address	
4	Address for Communication	
5	Telephone Number	
6	Fax/Telefax Number	
7	Authorised Person Name	
8	Designation:	
9	Mobile No.	
10	Email ID	
11	Alternate Person Name	
12	Designation:	
13	Mobile No.	
14	Email ID	
15	PAN Number	
16	GST Regn. No. with Address	
17	Beneficiary's complete Bank Details.	
18	Bank Account No.	
19	IFSC / NEFT Code	
20	Name of the Bank	
21	Turnover of the Bidder in last 3 years	
22	2023	
23	2022	
24	2021	
25	Are you a MSME Unit. If yes, please furnish. Registration Details, Name of the DIC/State.	
26	If you are MSME, is it owned by SC/ST Entrepreneurs or Women Entrepreneurs? If Yes, please specify the Name of the Owner who is SC or ST or Women Entrepreneur (as applicable)	
27	Following Documents are to be submitted	
28	Certificate of Incorporation	
29	PAN No	
30	GST Registration No.	
31	DECLARATION S) We have read and understood the terms & conditions of the above-mentioned tender and comply to all Terms & Conditions of the Tender.	Signature of Authorised Signatory with Seal  (Name)



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	(In case of any deviation, the Bidder must attach a separate sheet clearly mentioning the Clause No. of the Tender and Deviation thereto) 2) We certify that the information mentioned above are true and correct to best of our knowledge.	
32	Place	

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## ANNEXURE-5

### BoQ

RFQ No: FSID/IOSMCN/05- 07 Dt 03/06/24 for UE log Analysis Tool				
Sl. No	Equipment/Devices	HSN Code	Qty	Compliance (Yes/No)
1.	UE log Analysis Tool		1	



**ANNEXURE-6**

**Format: Letter of undertaking**

(Company letterhead)

To,

Director,  
FSID, IISc Bangalore-560012

Sir,

**Sub: Undertaking on non-disclosure of contract documents**

I/We do hereby undertake that we shall not disclose the contract or any provision, specification, plan, design, pattern, sample, or information to any third party for a period of three years from the termination of the contract.

I/We do hereby undertake that except with the written consent of the Buyer/Seller, the other party shall not disclose the contract or any provision, specification, plan, design, pattern, sample or information to any third party.

I/We do hereby undertake not to copy the AS-IS documentation captured in this tender document in any form Xerox, electronic, or via DMS or any other physical/electronic means. For any purpose but for the bidding process.

For and on behalf of the  
Bidder

(Signature)

(Name of the Authorized Signatory)

Date:



**ANNEXURE-7**

**Financial Bid Format**

<b>RFQ No: FSID/IOSMCN/05- 07 Dt 03/06/24 for Supply of UE log Analysis Tool</b>					
<b>Sl. No</b>	<b>Equipment/Devices</b>	<b>Qty</b>	<b>Unit Rate in INR</b>	<b>GST in INR</b>	<b>Total with GST in INR</b>

- **Delivery charges**
- **Installation charges**
- **AMC charges for 3 years**

**END THE DOCUMENT**