

Request for Proposal (RFP) For Implementation of Mobile Network Coverage and Closed User Group (CUG) solution of Telecommunication system at AIIMS Jodhpur

R.F.P No.	AIIMS-JDH/SE/RFP/01
R.F.P Issue Date	06.01.2025
Pre-Bid Meeting date	13.01.2025
Last date of submission of RFP	20.01.2025

RFP Document can be downloaded from the following websites: www.aiimsjodhpur.edu.in;
<http://eprocure.gov.in>



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NOTICE INVITING RFP

S. No.	Particular	Remarks
1.	Name of work	RFP for Implementation of Mobile Network Coverage and Closed User Group (CUG) solution of Telecommunication system at AIIMS Jodhpur.
2.	RFP No.	AIIMS-JDH/SE/RFP/01
3.	Contract period	10 years (extendable to further <u>5</u> years)
6.	RFP documents	Download from the following websites- www.aiimsjodhpur.edu.in http://eprocare.gov.in
7.	Pre-bid meeting	13 th January 2025, @3:00 PM at Conference Room, Medical College, AIIMS-Jodhpur
8.	Last date and time for submission of RFP	20 th January, 2025
11.	<i>RFP can only be submitted through e-mail at</i>	se@aiimsjodhpur.edu.in ; bhandrih@aiimsjodhpur.edu.in

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DEFINITIONS

- (i) “Client” means The Executive Director, AIIMS- Jodhpur.
- (ii) “Institute” means All India Institute of Medical Sciences, Jodhpur
- (iii) “Engineer-In-Charge” means Superintending Engineer, AIIMS- Jodhpur.
- (iv) “Contractor/service provider / bidder” means the individual or the firm providing operation and maintenance services incorporated in the contract
- (v) “e-RFP” means Bidder/ the Individual or Firm submitting Bids / Quotation / RFP
- (vi) “Services” means Comprehensive Maintenance & operation of Mobile Network Coverage and Closed User Group (CUG) solution of Telecommunication system at AIIMS Jodhpur.
- (vii) “Earnest Money Deposit” (EMD) means Bid Security/ monetary or financial guarantee to be furnished by an RFP along with its RFP.
- (viii) “Specification” means the document/standard that prescribes the requirement with which goods or services must conform.
- (ix) “Inspection” means activities such as measuring, examining, and testing of the product or service and comparing the same with the specified requirement to determine conformity.
- (x) “Day” means calendar day.

Abbreviations:

- (i) “RFP” means Request for Proposal
- (ii) “TE Document” means RFP Enquiry Document
- (iii) “NIT” means Notice Inviting RFPs.
- (iv) “GCC” means General Conditions of Contract
- (v) “SCC” means Special Conditions of Contract
- (vi) “SOW” means Scope of work
- (vii) “NSIC” means National Small Industries Corporation
- (viii) “LSI” means Large Scale Industry
- (ix) “SSI” means Small Scale Industry
- (x) “GST” means Goods and Services Tax
- (xi) “FOR” means Free on Rail and MOH&FW” means Ministry of Health & Family Welfare, Government of India.

DISCLAIMER:

This RFP is not an offer by the All India Institute of Medical Sciences, Jodhpur, but an invitation to receive an offer from bidders/firms/agencies etc. No contractual obligation whatsoever shall arise from this RFP process unless and until a formal tender is processed, the contract is signed and executed by duly authorized officers of AIIMS, Jodhpur, with the successful bidder/ firm/ agency.

INSTRUCTIONS FOR THE BIDDER/ THE SERVICE PROVIDER/ BIDDERS

All India Institute of Medical Sciences (AIIMS), Jodhpur, Rajasthan, an apex healthcare institute established by an Act of Parliament of India under aegis of Ministry of Health & Family Welfare, Government of India, invites Online proposals for ***“Implementation of Mobile Network Coverage and Closed User Group (CUG) solution of Telecommunication system at AIIMS Jodhpur.”***

1. Submission of RFP:

The RFP must only be submitted via email only at following e-mail address on or before the last date of submission of proposal:

se@aiimsjodhpur.edu.in; bhandarih@aiimsjodhpur.edu.in

I. Contents of RFP

The following documents are to be furnished by the bidder along with **Technical Bid** as per the RFP document:

- Duly filled details as per Annexure – I.
- List of Government/Public Sector Clients/organizations served in the past 07 years.
- CA certificate indicating turnover along with UDIN no. of the last 3 financial years
- Budgetary Proposal after survey valid for 180 days.
- Presentation regarding the solution offered (PDF shall be attached however date of presentation shall be intimated afterwards)

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GENERAL CONDITIONS FOR BIDDERS

1. The vendor will survey the premises and as per the e-RFP document, he will arrive with a detailed design, drawing & technical datasheet of the telecommunication system at the entire AIIMS Campus. Further, all items/products/solutions required for a turnkey project to be submitted. The proposal for all the work should be made as per CPWD norms.
2. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids, the means of access to the site and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. Submission of a bid by a bidder implies that he has read this notice and all other conditions of this document and has made himself aware of the scope of work to be done and of conditions.
3. The work will be allotted to Highest (H-1) bidder as per uploading the details in the tender after this RFP.
4. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the Agencies who resort to canvassing will be liable to rejection.
5. No Engineer of gazette rank or other Gazette Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as an Agency for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the Agency or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as afore said before submission of the bid or engagement in the Agency's service.

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Scope of work

I. Mobile Network Booster:

1. All costs regarding the Survey, Design, Drawing, implementation (Supply, installation, testing, and commission) including Operation & Maintenance of the system (for 15 years) will be borne by the successful Agency. AIIMS Jodhpur will not pay any amount in this regard.
2. The agency should ensure that there is adequate mobile network data speed and HD Voice Coverage at every corner of the Hospital and Residential Complex under the scope of this project.
3. The Agency shall ensure to enhance the mobile network coverage to the upcoming buildings like New Trauma building, New Admin Building, New staff quarters, if any others, etc. after completion of the construction projects. If the installed towers are insufficient for network coverage to the upcoming buildings, then additional infrastructure shall be provided by the agency after obtaining permission from AIIMS Jodhpur at the same T&C and rates.
4. The agency shall install the minimum required number of Towers either **Roof-Top Tower (RTT) or Ground-Based Tower (GBT)** (in accordance with the availability of area inside the campus) so that it can cover the entire campus of the AIIMS Jodhpur and also install the adequate IBS (In-Building Solution) signal booster inside/outside the buildings for the adequate mobile network coverage for best voice calls and High-Speed Data Connectivity at every corner of the buildings.
5. The agency should ensure that the frequency bandwidths of different mobile operators do not overlap.
6. The agency must look after all the obligations between the ISP and its T&C, AIIMS Jodhpur will not be responsible for any disputes.
7. A **major** responsibility of the agency is to ensure that the infrastructure network remains operational for a minimum of 99 percent of the time.
8. Providing and installing Separate Electrical meters is under the responsibility of the agency.
9. The agency must maintain all safety regulations in accordance with Indian Electricity rules (IE).
10. The successful agency shall have to make all arrangements with the service providers for providing adequate mobile signals, O&M expenses and other service charges. The direct and indirect costs involved in the operation of IBS equipment are to be borne by the solution/service provider.
11. The said project shall offer shared In-building solutions for various types of telecom operators such as GSM (Global System for Mobiles) /CDMA (Code-Division Multiple Access) / UMTS (Universal Mobile Telecommunications System) Technologies.
12. The agency shall ensure all Mobile technologies such as 2G /3G / 4G-VoLTE/ 5G with all available frequency bands or future generation technology should be integrated/ upgraded to this common infrastructure. It should have enhanced mobile data speeds and compatibility with

future technologies.

13. Agency will design the best-fit telecom solution for AIIMS Jodhpur with mutually agreed upon.
14. Unique Benefits of the operator (Bharti Airtel, Reliance JIO, BSNL & Vodafone, etc.) on a non-discriminatory basis shared network in the AIIMS Jodhpur campus.
15. Mobile network Signal strength values are defined by a few different measurements which vary even more for different service modes. These measurements are as follows: RSSI, RSRP, RSRQ, RSCP, SINR, EC/IO. Both Signal Strength and Signal Quality must be considered for successful cellular data connection, so the agency shall ensure all the above parameters to maintain a good level so that the strength and Signal Quality will not drop. The below range requirements as follows:
 - a) The agency shall maintain at least 2G (GSM) Signal strength:
 - **RSSI – Received Signal Strength Indicator:** RSSI is a negative value, and the closer to 0, the stronger the signal. Strong signal with good data speeds RSSI value = **-70 dBm to -85 dBm**.
 - b) The agency shall maintain for 3G service mode, there are three relevant measurements:
 - **RSSI** - Received Signal Strength Indicator. RSSI is a negative value, and the closer to 0, the stronger the signal. Strong signal with good data speeds RSSI value = **-70 dBm to -85 dBm**
 - **EC/IO** - indicates the downlink carrier-to-interference ratio (signal quality). EC/IO is a negative dBm value. Values closer to 0 are stronger signals. Strong signal with good data speeds **-7 dBm to -10 dBm**
 - **RSCP** - indicates the Received Signal Code Power. Strong signal with good data speeds **-75 dBm to -60 dBm**
 - c) The agency shall maintain for 4G/5G service mode, there are four relevant measurements:
 - **RSSI** - Received Signal Strength Indicator. RSSI is a negative value, and the closer to 0, the stronger the signal. Strong signal with good data speeds RSSI value = **-65 dBm to -75 dBm**
 - **RSRP** - the Reference Signal Received Power is the power of the LTE Reference Signals spread over the full bandwidth and narrowband. Strong signal with good data speeds **-80 dBm to -90 dBm**
 - **RSRQ** - Reference Signal Received Quality is a C/I type of measurement, and it indicates the quality of the received reference signal (similar to EC/IO). Strong signal with good data speeds **-10 dB to 15 dB**
 - **SINR** - Signal to Interference plus Noise Ratio. Indicates the throughput capacity of the channel. As the name implies, SINR is the strength of the signal divided by the strength of any interference. Strong signal with good data speeds **13 dB to 20 dB**
 - d) **Cellular Distributed Antenna Systems (DAS):** In-building Distributed Antenna Systems (DAS) have become a critical part of both carrier cellular networks and enterprise infrastructure. A DAS is a network of antennas that sends and receives cellular signals on a carrier's licensed frequencies, thereby improving voice and data connectivity for end-users. DAS has two basic

components:

- i) **Signal Source:** A DAS needs to be fed a signal from somewhere. Whether it's 4G LTE or 5G, there are typical signal sources:
 - off-air (via an antenna on the roof)
 - An on-site BTS (Base Transceiver Station).
 - The newest Approach: small cells.
 - The agency shall install the BTS, NodeB, eNodeB, and gNodeB signal source for the **Highest performance and can provide as much capacity as needed for any venue**. The connection between a cell carrier's BTS and the core network typically requires a dedicated fiber connection that is usually installed by the carriers themselves.
 - ii) **Distribution System:** Once received, the cellular signal must be distributed throughout the building. There are four main types of distribution systems: **Active** (using fiber optic or Ethernet cable), **Passive, Hybrid, and Digital**. The infrastructure provider has to maintain **99.95%** uptime of the DAS network. A distributed antenna system in a large hospital, stadium, or airport may even connect to multiple BTS's—one for each carrier—to handle the load of tens of thousands of users calling, texting, and using data simultaneously.
16. **Mode of deployment of In-building solution:** The possible modes are deployment by the Neutral host infrastructure provider, Build and managed by mobile operator and sharing with other service providers on a non-discriminatory basis. The In-Building Solutions (IBS) can also be deployed by IP-I (Infrastructure Provider Category I) and shared with telecom service providers. For deploying indoor solutions these companies will be requiring permissions from the Institute building owners. Moreover, if these IP-I companies are required to install optical fiber for connecting IBS/DAS nodes for which RoW/permissions will be required and shall be granted accordingly.

II. Closed User Group (CUG):

1. At the start of contract, the estimated number of mobile connections will be 500 nos. (+/-10% of 500) minimum for three years, and at the start of 4th year 100 (+/- 10% of 500) more mobile connections will be provided and at the start of 5th year 100(+/- 10% of 500) more mobile connection will be provided by the vendor, if required. The monthly plan to be provided by the vendor for each mobile connection will be on zero rental basis. The Institute reserves the right to increase or decrease the number of connections during the currency of the contract. However, the bidder shall not impose any limit on the number of connections to be provided under CUG. Infrastructure shall be able to cater to 4G/VoLTE/5G technologies and shall be upgradable to future technologies like 6G etc.
2. All the mobile connections covered under Closed User Group (CUG) will not be charged for voice and messaging services of the CUG and calls made or received to/from the fixed landline

- numbers of IPBX of AIIMS Jodhpur in the home circle.
3. AIIMS Jodhpur will not be responsible for any other paid services provided by the service provider to any Individual CUG users, and these services will be provided by the vendor if purchased individually by the CUG users after getting NOC from AIIMS Jodhpur. In no circumstances neither these services should be billed to AIIMS- Jodhpur nor their availing should affect the services mandated under CUG System.
 4. The SIM Cards provided should also be supportable to any non-multimedia phones and Higher Smartphones. AIIMS Jodhpur may require the regular / micro / nano SIM cards based on its requirement and should be provided by the agency at any time of the contractual period and if Institute requires to interchange/replace SIMs (regular / micro/ nano), the same should be provided free of cost by the agency.
 5. In case of damaged / lost SIM, the agency shall provide the duplicate SIM free of cost within one day (1) from the date of receiving the request.
 6. Caller ID facility for every number of CUG to be made free of cost.
 7. Free SMS flash facility with regard to Institute function, conferences, meetings etc. shall be provided by the service provider on CUG connection as decided by competent authority of AIIMS Jodhpur from time to time.
 8. The agency shall issue new connections on request of AIIMS Jodhpur within 2 days. This includes delivery of SIM cards to the institute and activation of the SIM within the stipulated period.
 9. Handset should be provided by the agency **free of cost/ charge basis** with the following features:
 - A. Data enabled mobile phone.
 - B. SIM Type: 4G/5G Mobile phone.
 - C. Battery power – minimum Li-Ion 1400 mAh or higher.
 - D. Screen Size: minimum 2.0 inches
 - E. Connectivity: 4G Volte Network: Yes/GSM 850/900/1800/2100/2300/2500/2600 MHz
 - F. Bluetooth: Yes
 - G. Memory: Internal Memory: minimum 64 MB, Expandable memory capacity: minimum 32 GB
 - H. Memory card slot: Yes/Micro SD
 - I. Auto key lock and auto ON facility for the instrument.
 - J. Up gradation of software and features from time to time.
 - K. Minimum 500 contacts saved in Mobile/SIM card.
 - L. Make and Model Should be “Make-in-India” and as per the rules & regulations MeitY(Ministry of Electronics and Information Technology), Government of India.
 10. If any SIM replacement is required due to number portability, the same shall be offered free

of cost to AIIMS Jodhpur.

11. The new connections issued by the agency shall follow the same series of digits as far as possible.
12. The mobile numbers issued should be a ten (10) digit number. The same ten (10) digit number shall be used for CUG calling.
13. The agency will be required to give a warranty/guarantee that during the warranty period the equipment, including accessories, will be maintained in good and properly working condition for a period of 361 days out of a period of 365 days (i.e. 99% uptime). If the machine is out of order for more than 5 hours during any day, it shall be considered as one-day downtime. The essential period to shut down the installation, entirely or partially, shall also be included in the downtime if it exceeds 2 days while calculating the 99% guaranteed uptime. No deduction or advantage of any kind on account of Sundays, half days on Saturdays, Public /Govt. holidays observed by the Institute shall be allowed from the total downtime permissible as defined above. The equipment will thus be required to be maintained in satisfactory working conditions for a minimum of 361 days in each period of 365 days which defines the 99% guaranteed uptime required to be maintained in each such period of 365 days. The failure to provide 99% guaranteed uptime shall attract a penalty @ Rs 1000/- per hour. This guaranteed uptime for the purpose penalty shall be calculated annually.
14. The service provider/agency should mention additional features that will be provided free of charge with the connections.
15. The service provider/agency should give an undertaking to AIIMS Jodhpur stating that no unlawful mobile surveillance (of CUG mobiles and landlines) will be allowed.
16. The agency will make an arrangement to monitor that those connections which are not in use continuously for **03 months** will be placed in safe custody and service providers will send details of such connections to AIIMS Jodhpur authority from time to time. Such connections will be activated only after authorization by the respective AIIMS Jodhpur authority and work for such connections will be resumed.
17. The agency should ensure optimal signal strength for the clarity of voice and Data/reception in each and every corner of the institute and the home circle. Low power and low height antenna solution required for outdoor coverage. **The height of the BTS Antenna/poles should be within the prescribed limits of DoT and radiation level should be within the prescribed limits of DoT. Indoor building solution (IBS) will be provided for optimal signal coverage in AIIMS Jodhpur.**
18. The agency will provide **‘Do Not Disturb’ (DND) services** to all the users in the CUG. Except for that, all the messages sent from AIIMS Jodhpur reach the CUG mobiles of all the users.
19. The aesthetics of the building should be maintained. No major change will be allowed. Any damage or loss of any kind to the AIIMS Jodhpur property due to the installation/operations

- of IBS and ODAS will be the sole responsibility of the agency as per the damage recovery checked/verified by the AIIMS Jodhpur Engineering department. All costs of operation and maintenance etc. of the entire IBS and ODAS Should be borne by the agency.
20. The network should be built in a manner so that the mobile coverage in AIIMS Jodhpur can be controlled with a minimum number of Base stations.
 21. Details of the base stations required and the equipment to be installed in AIIMS Jodhpur have to be submitted by the vendor in advance for approval of AIIMS Jodhpur.
 22. Electricity installation including sub-meters will be done by the agency and the Main electricity supply will be provided by the Institute. All expenses in this regard (one-time and recurring) will be borne by the agency.
 23. All areas of AIIMS Jodhpur campus (outdoor as well as indoor areas) should be covered with proper and best mobile signal strength.
 24. To meet the future mobile communication needs of CUG cellular network in the upcoming buildings in AIIMS Jodhpur campus, the AIIMS Jodhpur will provide open space for installing equipment as and when needed. The base stations/area/space to be provided will be decided mutually.
 25. The agency will pay a monthly facilitation charge as quoted by the bidder in the preceding NIT. The monthly facilitation charge will be increased by 10 % on completion of respective next years.
 26. The agency shall pay the monthly facilitation charges in advance and without demand by 7th of each month along with Goods Service Tax or any other State/Central tax imposed from time to time. In case the vendor fails to pay the monthly facilitation charge by the due date, the vendor will be penalized @1.5% per month or part of it on the due facilitation charge payable to the AIIMS Jodhpur.

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ANNEXURE – I
DETAILS OF THE BIDDER

S. No.	Details of the Bidder / Bidder	
1.	Name of Firm /Service provider / service provider	
2.	Complete Address:	
3.	Name of Proprietor/ Partner/ Managing Director / Director.	
4.	State clearly whether it is sole proprietor or partnership firm or a company or a Government Department or a Public Sector Organization	
5.	Whether the RFP and its annexure have been signed and stamped	
6.	Whether the firm is a registered firm Yes/No (attached copy of certificate).	
7.	Copy of GST Registration	
8.	Permanent Account No. (Copy must be provided)	
9.	Any other information, if necessary	
10.	Name and address of service center at/ nearby Jodhpur	
11.	Official Email ID	
12.	Contact No.	

❖ **Note: All pages should be numbered & indexed.**

Date:

Name:

Business Address:

Place:

Signature of Bidder:

Seal of the Bidder: