



NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA

Advertised/ Limited Tender Enquiry

Department: Computer Center

Enquiry No: NITR/CC/HOD/ /2017/L/ 1150

Date: 08.06.2017

Important Dates

To

| Event | Date | Time |
|---------------------------------------|-------------|---------|
| Last Date for Submission of quotation | 22 .06.2017 | 3.00 PM |
| Quotation Opening date | 22 .06.2017 | 4.00 PM |

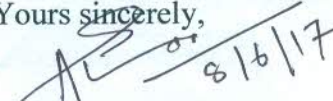
Dear Sir,

We intend to purchase the commodities specified in enclosed documents and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms and conditions within the time mentioned above.

Please send your quotation to:

Head Computer Center
NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA

Yours sincerely,


8/6/17
Head, Computer Center

Encl :

- (1) Schedule of requirement, specifications, dates etc.
- (2) Bid document containing detail terms and conditions.

1. **Schedule of requirements:**

| Sl. No. | Description of Goods / Service | Quantity |
|---------|--------------------------------|----------|
| 1. | WIRELESS CONTROLLER | 1 |
| 2. | Access Point Type 1 | 5 |
| 3. | Access Point Type 2 | 35 |

2. **Specifications and allied Technical Details**

| |
|----------------------------------|
| As attached in <i>Annexure-A</i> |
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3. **Format of Quotation** (tick appropriate box)

It is a single bid; please give all technical specifications and price bid in one envelope.

OR

It is a two-part bid with separate techno-commercial and price bids.

4. The bid envelope should be superscribed with

| | |
|---|---------------------------|
| Bid for Wireless Network Solution vide Enquiry No. NITR/CC/HOD/2017/1150 | Dated : 08.06.2017 |
|---|---------------------------|

5. Quotations should be valid for a period of **180** days from the closing date of the bid.

6. Attending pre-bid meeting is compulsory for firms intending to participate in bid. Bids of firms not attending pre-bid meeting will not be accepted.

7. **Some important dates:**

| | | | |
|----|-------------------------------------|---|---------|
| b. | Last date for receipt of quotation: | 22.06.2017 | 3.00 PM |
| c. | Opening of techno- commercial bid: | 22.06.2017 | 4.00 PM |
| d. | Opening of Financial bid: | After successfully compilation of techno- commercial bid. | |

8. **Warranty** of 5 years for the hardware supplied.

9. (a) **Excise Duty:** The Institute is exempted from Excise Duty (please refer point no. 2.2. in bid document). Please state applicable excise duty as a separate item.

9. (b) **VAT/CST:** The Institute is not authorized to give C or D form. CST or VAT should be charge according to applicable rates.

9. (c) **Entry Tax:** The State of Odisha charges entry tax on all goods entering the State. Please include it in your quotation as a separate item. Entry Tax will be reimbursed on production of proof of payment.
9. (d) Institute can provide custom duty exemption certificate if the equipment can be imported. This option can be considered if there is a price advantage.
10. **Bid Security** (See pt. no. 2.6 of instructions): Rs. 20,000 (Rupees Twenty thousand only) in form of Account Payee Demand Draft drawn in favour of “Director, NIT Rourkela”, payable at Rourkela or Bank Guarantee to “National Institute of Technology, Rourkela” for 6 months.
11. **Performance Security** (See pt. no. 2.7 of instructions): Will be decided as per the norms of the institute.
12. Please go through the enclosed “bid document” carefully for other bidding instructions.
13. (a) Please send your quotations by Registered/Speed Post or Courier Service to:

Head, Computer Center
National Institute of Technology, Rourkela – 769 008
Ph: 0661-2462671 E-mail: hod-cc@nitrkl.ac.in,

OR

- (b) Drop the quotation in the Tender Box kept in the office of the Department during the normal working hours of the Institute. Please do not hand over the quotation to any person by hand.

14. For technical details, you may contact

Head, Computer Center
National Institute of Technology, Rourkela–769008
Phone: 0661–2462671
e-mail: hod-cc@nitrkl.ac.in



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA - 769008 (ODISHA)**

Proposals (technical and financial) are invited in the shape of two bid system i.e. (Technical & Commercial) from reputed Indian firms for supply of Wireless Network Solution. Sealed proposal should reach the undersigned by the date mentioned in point no. 6 of tender enquiry. The representatives of the firms should be present during the technical presentation.

Kindly frame your proposal in two parts: Technical bid and Commercial bid. Both should contain bid for *Wireless Network Solution*. Both proposals should be clearly marked and individually sealed. The two sealed proposals should be sealed in a larger envelope. The outer envelope should be superscripted with “*Tender for Wireless Network Solution*” and sent to “Head, Computer Center, NIT, Rourkela, Odisha, Pin - 769008”. The quotation can be sent to the Institute by speed post or hand delivered before the time of tender opening. Important venues and dates are mentioned at point no. 6 of tender enquiry.

BID DOCUMENT

1. **Instructions to the Bidder/ System Integrator :**

1.1 Sealed bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela – 769 008, Odisha, from the intending Bidder/ System Integrator for supply of the Wireless Network Solution for the Institute as detailed in the enquiry letter.

1.2 **Eligibility of Bidder/ System Integrator :**

- a. The bidder / System Integrator should be a Wireless Network Manufacturer (OEM) / System integrator/authorized service provider/ Reseller. The manufacturer (OEM) should authorize the system integrators for this tender specifically. Documentary proof regarding this must be attached.
- b. The bidder / System Integrator should have been in operation for a period of at least 3 years as on last date of bid submission, as evidenced by the “Certificate of Incorporation and Certificate of Commencement issued by the Registrar of Companies”.
- c. OEM must have at least 3 years of experience in supply, installation, commissioning and maintenance of ***Wireless Network Solution***, out of which at least 3 installations in India. The OEM/bidder / System Integrator should provide details of at least 3 projects of the same scale and nature executed by them.
- d. The OEM must have infrastructure support in the form of direct service centers in Eastern India (Kolkata / Bhubaneswar / Raipur / Ranchi / Jamshedpur / Rourkela or any other place) and should be able to provide the service in 12 hours. The bidders must enclose details of their infrastructure with reference to locations and technical manpower, availability of inventory spares etc. Address of service centre should be provided.

- 1.3 Firms are advised to study all technical and commercial aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information required in the Tender Document in every respect will be at the firm's risk and may result in the rejection of the bid.
- 1.4 The bidders/ System Integrators should quote their offer/ rates in clear terms without ambiguity.
- 1.5 All damaged or unapproved goods shall be returned at the firm's risk and cost and the incidental expenditure there upon shall be recovered from the concerned party.
- 1.6 Printed conditions of the firm sent along with the quotation, if any, shall not be binding on us.
- 1.7 The rates should be quoted both in figures and words and legibly written without any over-writings. In case of any correction, the same must be at tested by the bidder/ System Integrator with full signature. However, no over-writing is permissible. Manufacturer's price-list, where applicable, should be submitted along with the bid.

Any discrepancy between quoted prices in figures and that in words, if noted, will be sorted out in the following manner:-

- (i) If there is a discrepancy between the unit price and the total price the unit price shall prevail and the total price will be corrected accordingly.
 - (ii) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
 - (iii) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to above.
- 1.8 The last date for receipt of the bid is marked in the enquiry. In case the above date is declared a holiday for NIT, Rourkela, then the bids will be received up to the appointed time on the next working day.
 - 1.9 The bids may be sent by registered or speed post or by courier service, so as to reach the concerned department before the last date of receipt, or alternatively, be dropped in the tender box kept at the Computer Center.
 - 1.10 The bidder/ System Integrator may modify his bids before the last date appointed for receipt of the bids by sending an amendment to the bid. No bid shall be modified after the deadline for receipt of the bids.
 - 1.11 Bids received after the deadline indicated in pt. no.7 in tender enquiry, shall not be taken in to consideration.
 - 1.12 Each bidder/ System Integrator shall submit only one bid. A Bidder/ System Integrator, who submits more than one bid, shall be disqualified and considered non-responsive.
 - 1.13 The bids may be submitted in two parts, viz., technical bid and financial bid. The above two bids may be sealed by the Bidder/ System Integrator in separate cover duly super-

scribed and both these sealed covers are to be put in a bigger cover which should also be sealed any duly super-scribed.

1.14 **Clarification Regarding Tender Document:** A prospective firm requiring any clarification of the tender document may notify the client in writing at the Client's mailing address indicated under pt. no. 13 of advertised/limited tender enquiry document. The client will respond in writing to any request for clarification of the tender document, received not later than 07 working days prior to the last date for the receipt of bids prescribed by the client.

1.16 **Amendment of Tender Document:**

- a. At any time prior to the last date for receipt of bids, the client may modify the tender document by an amendment for any reason, whether at its own initiative or in response to a clarification required by a prospective firm.
- b. The amendment will be notified in writing or by telex or e-mail to all prospective firm who have received the tender documents and will be binding on them.
- c. The client may, at its discretion, extend the last date for the receipt of the bids if required.

1.17 The cover containing the bid must be sealed and superscripted “Bid for Wireless Network Solution vide No. **NITR/CC/HOD/2017/L/1150** **Dated : 08.06.2017**” as given under pt. no. 4 of the enquiry.

1.18 The bids shall be opened in the Institute at the date and time given on the top of the document. The Bidder/ System Integrator s may send their authorized representatives to attend the bid opening, if they so desire. In the event of the above bid opening date being declared holiday for the NIT, Rourkela, the bids will be opened at the appointed time and place on the next working day. Any change in venue will be intimated suitably.

1.19 The Bidder/ System Integrator has to sign in full at all pages of the bidding document.

1.20 **Tender Opening:** The authorized personnel from the company may be present at the tender technical bid opening with the valid authorization letter. The technically qualified Bidder/ System Integrator s will be informed after which Commercial Bid opening will be done and finalized on same day.

All the services/ items to be supplied should be new, of latest technology, good quality and standard and as per specifications mentioned. The selected vendor shall be responsible for total system integration and management wherever applicable.

1.21 **Submission of offer:**

- (i) The firm shall bear all costs associated with the preparation and submission of its Bid, including the cost of presentation for the purpose of clarification of the bid, if so desired by the client and the client will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.
- (ii) All prices and other information like discounts etc. having a bearing on the price shall be written both in figures and words in the form. Where there is a difference between amounts quoted in words and figures, the amounts quoted in

words shall prevail. The Excise Duty, Sales Tax, VAT, Service Tax etc. as applicable on educational institutions which are not meant for profit should be quoted separately, failing which, the Institute shall have no liability to pay these charges and the liability shall be that of the firm.

- (iii) The firms should mention their quotation rates supported with Current Professional Tax, Income Tax, VAT, Service Tax, Valid Trade License and Credentials.
- (iv) In the Commercial Bid, the prices and other information like discounts etc., having bearing on the price shall be written both in Words and Figures without any discrepancy.
- (v) Each page of the offer shall be numbered and bear the signature of the firm at the bottom. All offers shall be either type written or written neatly in indelible ink. Any corrections should be properly authenticated.
- (vi) The offers should be addressed to the **Head, Computer Center, Computer Center, NIT, Rourkela-769008** giving indication that it contains the tender under sealed cover.
- (vii) The first cover shall be superscripted “**Technical Bid for Wireless Network Solution**”. The followings may be looked into while preparing the first cover.

Envelop – A (Envelop should be superscripted “Statutory Documents for Bid”)

General Criteria Documents:

- a. Bidder/ System Integrator s must produce valid tender specific authorization certificate from the OEM.
- b. The list of client (at least three) with contact details of a person (phone/mob no. with e-mail ids) where the Bidder/ System Integrator /OEM had supplied the similar type of materials with successful installation.
- c. Organizational details are to be enclosed in Covering Letter from Bidder/ System Integrator (from all the collaborating consortium partners, as applicable).
- d. The Bidder/ System Integrator should enclose a copy of quality certificate from a recognized institution for the OEM’s manufacturing/ assembly/ system integration facilities anywhere located in India or abroad. This certification should be from any globally recognized Institution.
- e. Bidder/ System Integrator s must enclose details of their infrastructure with reference to locations and technical manpower, availability of inventory spares etc.
- f. Any eligibility Documents.

- g. Copy of Certificates/P.O. with proof of having executed such similar projects.
- h. Bidder/ System Integrator should submit valid documentary proof like Sales Tax/VAT, Service Tax registration number, the details of income tax registration (PAN), Copy of Income Tax Returns/Clearance Certificate for last three years
- i. Bidder/ System Integrator s must submit a declaration on their letter head that they are not black listed in any Govt. body, undertaking, PSU or Autonomous bodies. If found the declaration is false their offer will be out rightly rejected and their EMD amount will be forfeited.
- j. Bid security: As stated in pt. no. 10 in enquiry.

Envelop – B (Envelop should be superscripted “Technical Bid”)

Technical Documents:

- a. Details of Hardware/Software included in offer.
- b. Details of Technical Specification and other specifications so as to enable technical assessment of the proposal.
- c. It should include technical compliance of the spec., and OEM available brochures with all technical details.
- d. Unpriced bid document exactly same as the price bid with full break up without the costs mentioned.
- e. All other relevant documents of this tender (excluding commercial part) should be included in this envelope.

Envelop – C (Envelop should be superscripted “Financial Bid”)

Commercial Criteria Documents:

- a. The second cover shall be superscripted, “Tender for **Commercial Bid for Wireless Network Solution: Financial Bid**”.
- b. The commercial bid shall be in two parts viz. Part I is giving consolidated rates for items mentioned in *annexure-A* and Part II is giving item wise rates wherever applicable.
- c. The commercial bid should essentially contain covering letter from the Bidder/ System Integrator .
- d. Both technical and commercial bid documents should be submitted in an organized and structured manner. No loose brochures/leaf lets etc. should be submitted. Both these covers should be sealed separately and put in an outer cover, which is also sealed and addressed to **Head, Computer Center, NIT, Rourkela-769008** giving indication that it contains the Tender for purchase of Wireless Network Solution.

1.22 Evaluation of offer:

- (i) First, the technical bids will be opened by a committee appointed by the Director. At time of Technical Bid evaluation, the shortlisted vendors may be called for detailed discussions at a specified date, time and venue, if required. They will be asked to give demonstration of one unit of Access Point of each category quoted which will be tested by NIT for evaluation with respect to coverage, throughput and user density. If the Bidder/ System Integrator fails to demonstrate the same product offered in each access point category, as per the specification the same will be rejected. Financial evaluation will be done for only those Bidder/ System Integrator s who will successfully qualify in the technical evaluation.

- (ii) The financial bids of the Bidder/ System Integrator found to be unsuitable in technical evaluation will not be opened for commercial evaluation.
- (iii) Firms whose financial bids are considered unworkable in view of prevailing market condition will be rejected. L1 will be awarded after financial comparative analysis of technically qualified Bidder/ System Integrator.
- (iv) If the Institute feels necessary, it may ask for revised bids from the shortlisted vendors which should be submitted within two days of intimation to this effect in sealed envelopes on specified date and time. The revised bids shall not be for amounts more than one quoted earlier for an item, unless the specification is of higher configuration than the earlier ones, by the respective vendor. Any vendor quoting higher rates for the same item quoted earlier in their revised Commercial bid shall be disqualified for further consideration.
- (v) The Institute reserves the right to select the vendor on the basis of best possible specifications / features quoted. The decision of the Institute shall be final and representation of any kind shall not be entertained on the above.
- (vi) Any attempt by any vendor to bring influence or pressure of any kind may disqualify the vendor for the present tender and the vendor may be liable to be debarred from bidding.
- (vii) The Institute shall have no obligation to convey reason for rejection of any bid. It shall be open for the Institute to reject even the lowest bidder in the interest of the Institute and no reasons need be given therefore.

1.23 **Technical Evaluation Parameters:** The Vendor shall provide the following information with the bid to provide background information on vendor to Tender Committee. Weightage will be given to the vendors on point basis for the following details.

- a. ***Technical Report*** of the Demonstration of Access points quoted with respect to Throughput, Coverage and User Density supported. This will also be used to determine the access point quantity for every Bidder/ System Integrator
- b. ***The list of clients*** (contact details of a person phone/ mob. no. with e-mail ids should be attached) where the Bidder/ System Integrator had supplied the similar type of materials (as mentioned in schedule of requirements) with successful installation in last three years.
- c. ***Quality certificate*** from a recognized institution for their manufacturing/ assembly/ system integration facilities anywhere located in India or abroad.
- d. ***Delivery period*** from the date of placement of the Purchase Order.
- e. ***Customer support*** strength by the vendor.
- f. Possible quicker ***availability*** of the vendor when problem occurs.
- g. ***Mode of handling complains*** (whether by fault ticket even by email or phone.)
- h. ***Validity period*** of cost of equipment.
- i. ***Necessary documents*** as mentioned in point 1.21 (vii) of the bid document.
- j. Any other points may deemed fit by the committee at time of technical evaluation of bid documents.

2. Commercial or Legal Conditions Of The Bid:

- 2.1 The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or ad valorem rate must be specified. Packing, forwarding, freight, entry tax etc. when quoted separately are reimbursable at actuals. If external agencies are employed, their receipts must be enclosed with the invoice.
- 2.2 Duties and Taxes are to be quoted separately. Ad valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules. Entry Tax, if any paid, shall be reimbursed on production of proof. Entry Tax should be shown as a separate component.

It may be noted that the Institute is exempted from paying Excise Duty vide Government Notification No. 10/97 dated 01.03.1997 [Registration No.: TU/V/RG-CD (227)/2001, dated 10.12.2001]. The Institute is not authorized to issue C or D forms. CST and VAT may be charged at applicable rates.

- 2.3 Conditional discount, if any, offered by the Bidder/ System Integrator shall not be considered at the time of evaluation.
- 2.4 The goods offered should strictly conform to the specification and technical details mentioned in *Annexure-A*.
- 2.5 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.6 The bid is to be accompanied with "Bid Security" for an amount stated in the pt. no. 10 in enquiry.

Warranty: 5 years comprehensive warranty from OEM.

- 2.7 **Performance Security:** The successful Bidder/ System Integrator has to furnish "Performance Security" as per Institute norms. Alternatively, fixed percentage of the cost of the stores as stated in the enquiry may be retained by the Institute in its Maintenance Fund towards performance security, which will be released six months after the completion of warranty period.
- 2.8 **Penalty for delay in commissioning:** The schedule to be given for testing and acceptance and/or delivery and installation at site is to be strictly adhered to in view of the strict time schedule for implementation of various projects of the Institute as time is essence of the contract.

Any unjustified and unacceptable delay in delivery beyond the delivery schedule as per Purchase Order (which shall not be less than 30 days from the date of issue of purchase order) shall render the vendor liable for liquidated damages by way of penalty at the rate of 1.5% (one and one half percent) per week subject to a maximum of TEN weeks and there after the Institute holds the option for cancellation of the order of pending supply and procure the same from any other vendor and invoke the Bank Guarantee of the vendor. The Institute may deduct such sum from any moneys in their hands due or to become due to vendor. The payment or deduction of such sums shall not relieve the vendor from his

obligations to complete the process of commissioning or from his other obligations and liabilities under the contract.

- 2.9 The successful Bidder/ System Integrator may be required to execute a contract, where applicable.
- 2.10 The Bidder/ System Integrator has to furnish up to date VAT and Income Tax Clearance Certificate along with the bid.
- 2.11 Payment (*100 percent*) will be made by Account Payee Cheque/ Bank Draft, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, where applicable, whichever is later/latest subject to conditions mentioned in point no. 2.12 under bid document. If the payment is not made by the Institute within this stipulated date, the vendor may claim compensation at rates fixed by the Institute.

2.12 **Payment Terms:**

- (i) The payment will be made 100% on delivery and after successful completion of training, installation, configuration, testing, implementation with existing infrastructure and proper verification of equipment.
- (iii) A pre-receipted bill shall be submitted in duplicate in the name of NIT, Rourkela at the location mentioned in the purchase order. It shall be done soon after the delivery and installation of the items along with a copy of the duly received delivery challan and original excise duty gate pass, if any.
- (iv) In case there is a price reduction in service components during the contract period, then the vendor will pass on all such benefits to NIT, Rourkela without claiming by the Institute.
- (v) Packing list must be put in all packets during time of delivery.

2.13 The bid document/ resultant contract will be interpreted under Indian Laws.

2.14 **Effect and validity of offer:**

- (a) The submission of any offer connected with these specifications and documents shall constitute an agreement that the firm shall have no cause of action or claim, against the Institute for rejection of their offer. The Institute reserves the right to reject or accept any offer or offers at its sole discretion and any such action will not be called in to question and the firm shall have no claim in that regard against the Institute.
- (b) The offer shall be kept valid for acceptance for a minimum period of 180 days from the date fixed for opening of tenders.
- (c) The rates quoted by the Bidder/ System Integrator shall be fixed up to the validity period. Any hidden charges which are revealed any time during the validity period or during installation and implementation of requirement mentioned in *Annexure-A* incorporation with existing system will completely bourn by the vender.

- (d) The offer shall be deemed to be under consideration immediately after they are opened and until such time the official intimation of a ward of contract is made by the Institute to the firm. While the offer is under consideration, if necessary, the Institute may obtain clarification on the offers by requesting for such information from any or all the firms by either in writing or through personal contacts as may be considered necessary. Firm shall not be permitted to change the substance of their offer after the tender has been opened.
- (e) All the terms and conditions for the supply, testing and acceptance, payment terms, penalty etc. shall be as those mentioned herein and no change in the terms and conditions will be acceptable. In case of alterations, if any, in the tender bid shall be attested properly by the firm, failing which the tender is liable to be rejected.
- (f) The Institute shall not be responsible for any delay in submission of the tender bids. The offers submitted by fax or email with unsigned tenders would not be considered as a valid offer and not considered. No further correspondence will be entertained on this matter.
- (g) In the event, the vendor's company or concerned division of the company is taken over / merged in to another company, all the obligations under the agreement with the Institute shall be passed on to the new company / division for compliance by the new company on the negotiations.
- (h) If the name of the product is changed for describing substantially the same product in a renamed form, then all techno-financial benefits agreed, with respect to the original product shall be passed on to the Institute and the obligations of the vendor towards the Institute in respect to the product with old name shall be passed on to the product so renamed.
- (i) The Registration Nos./ PAN No. of the firm allotted by the Sales Tax/ Service Tax/ Income Tax authorities, shall invariably be given along with relevant documents.
- (j) In case the Institute sees that the market rates have come down from the time when rates were finalized in the rate contract/order or there is a need for selection of new system configuration based on market trends, the Institute, may ask the technically short listed vendors to requite the prices and the vendor shall be selected on the basis of procedure given earlier.
- (k) The Institute reserves the right to award the contract to any of the Bidder/ System Integrator
irrespective of not being lowest, taking in to consideration of the interest of the Institute and in this respect, the decision of the Institute shall be final.

2.15 **Acceptance of tender:** The tender shall be processed as per standard procedures. The Institute, however, reserves the right to reject any tender without disclosing any reason. The Institute would not be under obligation to give any clarifications to those vendors whose tenders have been rejected, unless otherwise decided or covered under the provision of the Right to Information Act, 2005.

2.16 **Right to modify the requirement:** The categories of items and quantity will be as per requirements. NIT, Rourkela reserves the right to increase or decrease the quantity or delete some or all of the items depending on the needs of the Institute without assigning any reasons.

2.17 **Arbitration:** In the event of any question, dispute or difference arising under these conditions, Instructions' or in connection with this contract the same shall be

referred to the arbitration of a sole arbitrator, to be appointed by Director, NIT, Rourkela or his nominee. The award of the arbitrator shall be final and binding on the parties to this contract. The arbitration shall be held at the NIT, Rourkela. The proceedings of arbitration shall be held in accordance with the provisions of the Arbitration and Conciliation Act, 1996 or any statutory amendments there to, and both the parties to this contract shall bear the cost of arbitration equally. If differences persist even after arbitration and there are compelling reasons to go to the court, it will be decided in the court of Rourkela only.

- 2.18 **Right to award the contract:** The Institute reserves the right to award the contract to any of the bidder irrespective of not being lowest or to change any of the terms taking in to consideration of interest of the Institute and in this respect, the decision of the Institute shall be final.

Head, Computer Centre
NIT, Rourkela

General Clauses:

- Product of following manufacturer: Aruba/ Extreme/ Ruckus/ Cisco / Motorola are acceptable. All products quoted should be from a single manufacturer
- All products quoted should be manufactured by same OEM.
- All the products quoted should work in existing network of institute (Extreme Network).
- OEM should have minimum 5 similar deployments in Education Organization with minimum 350 AP's deployed with Controller based solution. Customer Reference to be provided.
- All AP's quoted should be with Controller based solution
- Defective products should be repaired/ replaced within 7 days from the date of complaint log.
- Firms should quote products that should not go into end of sale in next 2 years and end of support in next 5 years. Declaration to this effect should be attached in the Technical Bid.
- Protocols mentioned, is used only to indicate the functionality we want to achieve. The bidder and OEM can achieve the same functionality using any similar open standard protocol/ device etc. will be acceptable.
- Documentary evidence for Compliance to be provided point-wise with page no in the published document clearly indicated

1. Technical Specification:

| WAN Controller | |
|-----------------------|--|
| S.N. | Required Minimum Specifications |
| | Essential Features |
| 1. | WLAN quoted solution should have necessary ports and management connectivity for local and remote management of CLI and GUI. |
| 2. | Each quoted solution should be ready for supporting the 100 AP's from day one with scalability for 500 AP support in future with license upgrade only. Each quoted solution (primary and Redundant) should support of seamless roaming access over L2/L3 network. |
| 3. | Redundancy Features: quoted solution Must provide Active: Active with 1+1 and N+1 redundancy. The quoted solutions will be implemented in HA mode. Capacity to handle 2000 AP with additional HW on N +1 Mode. |
| 4. | WLC should support separation of Control plan and Data Plane and ensure that Data plane Traffic continues to flow and new users can be added without any outage even if the connection to all the quoted solutions are down. In conjunction to above the proposed WLC should also support redirecting/tunneling certain application specific traffic to central location to meet compliance and security needs of NIT Rourkela without the need to create different SSID and congest the airtime. |
| 5. | Each Controller must support 10000 concurrent devices (AP and Clients together). |
| | General Feature |
| 6. | quoted solution should provide air-time fairness between these different speed clients – slower clients should not be starved by the faster clients and faster clients should not adversely affected by slower clients. |
| 7. | System should provide real-time charts showing interference on a per-radio, per channel basis |
| 8. | Ability to map SSID to VLAN and dynamic VLAN support for same SSID. |
| 9. | Should have inbuilt configurable DHCP server for WLAN clients |
| 10. | quoted solution must support 802.11k and 802.11r. |
| 11. | Support automatic channel selection for interference avoidance |
| | Auto Deployment of AP's at different locations |
| 12. | Access points can discover controller on the same L2 domain without requiring any configuration on the access point |

| | |
|-----|--|
| 13. | Access points can discover controller across Layer 3 network through DHCP or DNS option |
| | Security & Monitoring |
| 14. | Quoted solution should support following for security & Authentication: |
| 15. | WIRELESS SECURITY: WEP, WPA-TKIP, WPA2-AES, 802.11i |
| 16. | AUTHENTICATION : 802.1X, MAB |
| 17. | External AAA servers : Active Directory, RADIUS, LDAP |
| 18. | System should support DOS attacks and Intrusion Detection & Prevention and Control for any Rogue Access Points. |
| 19. | The proposed solution should be able to scan for rogue and man-in-the-middle access points, honeypots and support prevention mechanisms to disconnect users from them. |
| 20. | quoted solution should support CAPWAP/LWAPP and IPSEC |
| 21. | System must be able to provide L2/L3/L4 and L7 Access Control. |
| 22. | The proposed solution should support L2 Client Isolation so User cannot access each other's devices. Isolation should have option to apply on AP or SSID's |
| 23. | Support Automatic Mesh creation |
| 24. | The proposed solution should support OS/Device finger printing and differentiate between personal devices and compute devices. |
| 25. | The proposed solution should support application visibility to classify and report type of applications that are consuming the network bandwidth and relative usage. |
| 26. | It should be possible to control, block and rate limit applications like facebook, google, youtube etc right from the WLAN perimeter entry to ensure fair usage of network facility by campus students |
| 27. | The proposed architecture should be based on controller based Architecture with thick AP deployment. While encryption / decryption of 802.11 packets should be able to perform at the AP. |
| 28. | The proposed solution should support Hotspot 2.0 |
| 29. | The proposed solution should support implementing role based policies with back end LDAP / RADIUS or external database user authentication for multiple SSID. |
| 30. | Controller should support Access Control based on Identity/Role/ Device/Time or Application. |
| 31. | IPv4 & IPv6 support from Day 1 |
| 32. | Controller should be EAL2 certified. |
| 33. | The proposed architecture should be based on controller based Architecture with thick AP deployment. While encryption / decryption of 802.11 packets should be able to perform at the AP. |
| 34. | The Controller should support OS/Device finger printing and device type based policies i.e allow or deny, Bandwidth rate limit, VLAN mapping |
| 35. | The controller shall be manageable using CLI, Telnet/SSH, HTTP based GUI and SNMPv2/v3. |
| 36. | The controller should be able to present a customizable dashboard with information on the status of the WLAN network. |
| 37. | The controller/System should be able to raise critical alarms by sending an email. |
| 38. | Self-healing (on detection of RF interference or loss of RF coverage) and vendor should provide their Interference mitigation techniques for same Domain interference (interference from AP's connected to same Controller) and from other AP's and 2.4Ghz devices (Microwave's, Radio's etc.) |
| 39. | Controller should support Hotspot features like WiSP, Passpoint etc. |
| 40. | Per SSID or dynamic Per user bandwidth Rate Limiting |
| 41. | Support automatic channel selection for interference avoidance |
| 42. | Capability to provide preferred access for "fast" clients over "slow" clients (11n vs. 11g) in order to improve overall network performance |
| 43. | System must support Band Steering where 5 Ghz clients are forced to connect over 5Ghz Radio to provide better load balancing among 2.4Ghz and 5Ghz Radios. |
| 44. | Support advanced multicast features and WMM support to provide best performance on Video applications. |
| 45. | Management |

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| 46. | The quoted solution should provide a Guest Login portal in order to authenticate users that are not part of the organization. |
| 47. | The quoted solution should be able to provide a web-based application that allows non-technical staff to create Guest accounts with validity for fixed duration like hours or days. |
| 48. | Provide Traffic reports that include: client fingerprint (iOS, Android, Windows, etc.), number of unique devices, session bytes transferred, session duration, and top clients by traffic volume. If not inbuilt this can be proposed with additional solution such as SCI / Analytics or Monitoring software. |
| 49. | Provide Inventory reports to provide a mechanism to easily keep track of all the Wi-Fi assets in the network. These reports can be used to provide: access point inventory, If not inbuilt this can be proposed with additional solution such as SCI / Analytics or Monitoring software. |
| 50. | The quoted solution shall provide custom report generation to target specific network elements based on SNMP MIB values. These reports can be emailed as PDF file. If not inbuilt this can be proposed with additional solution such as SCI / Analytics or Monitoring software. |
| 51. | The quoted solution shall be able to find the top applications that are hogging the network bandwidth and applications that are heavily used. If not inbuilt this can be proposed with additional solution such as SCI / Analytics or Monitoring software. |
| 52. | The quoted solution shall be manageable using CLI, Telnet/SSH, HTTP based GUI and SNMPv2/v3. |
| 53. | The proposed solution should be able to raise critical alarms by sending an email. |
| 54. | The proposed solution should be able to provide complete visibility of the users and trace the connectivity from wireless to wired backhaul for single point troubleshooting. Additional 3rd party NMS can be quoted to meet this if not supported by the OEM. |
| 55. | The proposed solution should be able to present a customizable dashboard with information on the status of the WLAN network. |
| | OEM Criteria |
| 56. | OEM should provide 24/7 TAC support and hardware warranty support from India Depot for all quoted components |

| Type 1 : WIRELESS ACCESS POINT 802.11b/g/n/802.11ac - High Density Medium coverage | |
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| SL No | Specification / Feature Requirement |
| 1. | The Access Point should have 2 auto MDX, auto-sensing 10/100/1000 Mbps RJ-45, with POE support on one port and external antennae. All antennae must be quoted |
| 2. | The APs should support the IEEE 802.11a, 802.11b, 802.11g , 802.11n & 802.11ac wave 2 standards |
| 3. | The AP must support Dual Band Concurrent Operation - 2.4GHz and 5GHz. |
| 4. | Should support 3x3:3 MiMo for an aggregate capacity of 1.75 Gbps including 450Mbps on 2.4Ghz and 1.3 Gbps on 5 Ghz |
| 5. | The AP shall have a Minimum Rx Sensitivity of -95 dBm. |
| 6. | The access points should be centrally managed. In some small isolated environments the AP should be able to function as a full-fledged stand-alone access point without the requirement of a controller. |
| 7. | Security mechanisms should be in place to protect the communication between the Access Point controller and the Access Points. |
| 8. | Since most radio interference come from the WLAN network itself the vendor should specify what mechanisms such as beam steering and beamforming are available in combination to focus the energy on the destination STA and minimize radio interference with the surrounding of the AP. |
| 9. | Since the WLAN network will be using an unlicensed band the solution should have auto channel and Tx Power mechanisms that reduce the impact of interference generated by other radio equipment operating in the same band. |

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| 10. | The access point should be able to detect clients that have dual band capability and automatically steer those client to use the 5GHz band instead of the 2.4GHz band. |
| 11. | The antennas to be dual polarised and should be integrated inside the access point enclosure to minimize damage and create a low profile unit that does not stand out visually. |
| 12. | The access point should support 802.1q VLAN tagging |
| 13. | The access point should support WPA2 enterprise authentication and AES/CCMP encryption. AP should support Authentication via 802.1X and MAC without the need to go to a controller. |
| 14. | Implement Wi-Fi alliance standards WMM, 802.11d, 802.11h, 802.11k, 802.11r and 802.11e |
| 15. | The Access Point should provide for concurrent support for high definition IP Video, Voice and Data application. |
| 16. | Support RF auto-channel selection. |
| 17. | Channel selection based on measuring throughput capacity in real time and switching to another channel should the capacity fall below the statistical average of all channels. |
| 18. | AP should provide minimum 23 dBm Radio output power for 2.4Ghz and 5Ghz both. |
| 19. | Should support Transmit power tuning in 1dB increments in order to reduce interference and RF hazards |
| 20. | Device antenna gain (integrated) must be at least 3dBi. |
| 21. | Upto 16 BSSIDs per AP for multiple differentiated user services (e.g. voice). |
| 22. | Should support upto 500 clients per AP |
| 23. | Should support IPv4 and IPv6 from day one |
| 24. | The access point should support following security mechanism: WEP, WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i. |
| 25. | System should support Authentication via 802.1X, local authentication database, support for RADIUS and Active Directory. |
| 26. | Operating Temperature: 0°C - 40°C, Operating Humidity: upto 95% non-condensing. |
| 27. | Should be WPC approved; ETA certificate to be enclosed |
| 28. | OEM should provide 24/7 TAC support and hardware warranty support from India Depot for all quoted components |
| 29. | Mechanism for physical device locking using padlock /Kensington lock / equivalent |
| 30. | Should be UL 2043 plenum rated and comply to WEEE/RoHS or equivalent. |
| 31. | Should be EN 60601-1-2 Medical compliant or equivalent |
| 32. | AP should be IOT ready from day 1. it should have 1 USB port for BLE or IOT dongle connectivity or equivalent. |

| Type 2: WIRELESS ACCESS POINT 802.11b/g/n/802.11ac - Medium Density High coverage | |
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| SL No | Specification / Feature Requirement |
| 1. | The Access Point should have 2 auto MDX, auto-sensing 10/100/1000 Mbps RJ-45, with 802.3af POE support on one port. |
| 2. | The APs should support the IEEE 802.11a, 802.11b, 802.11g , 802.11n & 802.11ac wave 2 standards |
| 3. | The AP must support Dual Band Concurrent Operation - 2.4GHz and 5GHz. |
| 4. | Should support minimum 2x2:2 or higher MIMO on both radio bands for an aggregate capacity of 1.150Gbps (300Mbps on 2.4Ghz and 850Mbps on 5Ghz) |
| 5. | The AP shall have a Minimum Rx Sensitivity of -95 dBm. |
| 6. | The access points should be centrally managed by the quoted controller. |

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| 7. | The access points should be centrally managed. In some small isolated environments the AP should be able to function as a full-fledged stand-alone access point without the requirement of a controller. |
| 8. | Since most radio interference come from the WLAN network itself the vendor should specify what mechanisms such as beam steering and beamforming are available in combination to focus the energy on the destination STA and minimize radio interference with the surrounding of the AP. |
| 9. | Since the WLAN network will be using an unlicensed band the solution should have auto channel and Tx Power mechanisms that reduce the impact of interference generated by other radio equipment operating in the same band. |
| 10. | The access point should be able to detect clients that have dual band capability and automatically steer those client to use the 5GHz band instead of the 2.4GHz band. |
| 11. | The antennas to be dual polarised and should be integrated inside the access point enclosure to minimize damage and create a low profile unit that does not stand out visually. |
| 12. | The access point should support 802.1q VLAN tagging |
| 13. | The access point should support WPA2 enterprise authentication and AES/CCMP encryption. AP should support Authentication via 802.1X and MAC without the need to go to a controller. |
| 14. | Implement Wi-Fi alliance standards WMM, 802.11d, 802.11h, 802.11k, 802.11r and 802.11e |
| 15. | The Access Point should provide for concurrent support for high definition IP Video, Voice and Data application. |
| 16. | Support RF auto-channel selection. |
| 17. | Channel selection based on measuring throughput capacity in real time and switching to another channel should the capacity fall below the statistical average of all channels. |
| 18. | AP should provide minimum 25 dBm Radio output power for 2.4Ghz and 5Ghz both for high coverage |
| 19. | Should support Transmit power tuning in 1dB increments in order to reduce interference and RF hazards |
| 20. | Upto 16 BSSIDs per AP for multiple differentiated user services (e.g. voice). |
| 21. | Should support upto 500 clients per AP |
| 22. | Should support IPv4 and IPv6 from day one |
| 23. | The access point should support following security mechanism: WEP, WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i. |
| 24. | System should support Authentication via 802.1X, local authentication database, support for RADIUS and Active Directory. |
| 25. | Operating Temperature: 0°C - 40°C, Operating Humidity: upto 95% non-condensing. |
| 26. | Should be WPC approved; ETA certificate to be enclosed |
| 27. | OEM should provide 24/7 TAC support and hardware warranty support from India Depot for all quoted components |
| 28. | Should be UL 2043 plenum rated and comply to WEEE/RoHS or equivalent. |
| 29. | Should be EN 60601-1-2 Medical compliant or equivalent |
| 30. | AP should be IOT ready from day 1. it should have 1 USB port for BLE or IOT dongle connectivity or equivalent. |

RELEVANT TENDER INFORMATION

The following information will be taken into consideration in the process of technical bid evaluation.

1. Name of the firm: _____
2. Client reference with similar deployment by OEM -5 Nos

| Sl.No | Name of the Educational Institution | No of Aps deployed | Contact person with details |
|-------|-------------------------------------|--------------------|-----------------------------|
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2. Delivery Period (as per technical detail attached in *Annexure –A*):
3. Validity Period of cost of equipment (as per technical detail attached in *Annexure –A*):
4. Whether tender specific authorization certificate from the OEM attached?
5. Whether quality certificate from a recognized institution for their manufacturing/assembly/system integration facilities anywhere located in India or abroad attached?
6. Whether infrastructure related details with reference to locations and technical manpower, availability of inventory spares etc. attached?
7. Whether copy of Certificates/P.O. with proof of execution of similar projects (mentioned in point no. 2) attached?
8. Whether documentary proof of Sales Tax/ VAT, Service Tax registration number, the details of Income Tax registration (PAN), Copy of Income Tax Returns / Clearance certificate for last three years attached?
9. Whether declaration on their letter head that they are not black listed in any Govt. body, undertaking, PSU or autonomous bodies is attached?
(Hiding facts in this regard will be taken as offence and cancellation of contract can be possible at any moment of information during period of the contract)

If yes provide possible reasons:

10. Whether penalty for delay in commissioning ever faced by any organization?
(Hiding facts in this regard will be taken as offence and cancellation of contract can be possible at any moment of information during period of the contract)

If yes provide possible reasons:
