

ERNET India
(An Autonomous Scientific Society under Department of Electronics &
Information Technology, MCIT, GoI)
Jeevan Parkash Building, 10th floor,
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(Tele: +91 11 23753984 FAX: +91 11 23753985)

Tender Enquiry No.: EI-D/Tech/55-48/15

Dated: 21/11/2015

Due Date: 08/01/2016

Opening of Bids: 08/01/2016

To

**Subject : Invitation of Bids for supply, Installation, commissioning & Integration of
Goods/equipment/services for Wi-Fi enabled Campus Network & other IT
infrastructure– reg.**

Sir,

ERNET India, an Autonomous Scientific Society under Department of Electronics & Information Technology, Ministry of Communications & Information Technology, Govt. of India, is a Class 'A' Internet Service Provider for the Education and Research community in India.

2. **ERNET India** is a nodal network for integrating education & research institutions in the country. An Internet service is one of the services being provided by ERNET India to these institutions. The services are provided through 14 Points of Presence (PoPs) located at the premier education & research institutions in the country. All these PoPs are connected on high-speed backbone with international connectivity. Each PoP is connected to other PoPs through scalable multiple Gigabit links.

3. **ERNET India facilitates implementation of number of projects by commissioning Campus Network, Wi-Fi & other IT infrastructure for various ministries, departments, academic & research institutions/universities/colleges under central and state Governments. ERNET India is also providing Internet & other access services to various Institutions, universities, colleges, departments and organizations. Therefore, ERNET India intends to enter into rate contract through empanelment of reputed manufacturers/authorized suppliers for supply, installation, commissioning & integration of goods/equipment/services for Wi-Fi enabled Campus Network and related systems, accessories, services, etc. at ERNET locations/user sites to be specified by ERNET India and providing comprehensive maintenance of the equipment during the free warranty period of three years from the date of installation at site and two years AMC services after warranty.**

4. Sealed tenders are, therefore, invited from the reputed manufacturers or their authorized representatives for the supply, Installation & Commissioning of items as per **Annexure-I** in conformity with Technical Specifications as at **Annexure-II**. Interested parties who wish to be empanelled to provide the required goods/equipments/services may collect Tender Document in person against a Demand Draft or Banker's Cheque of Rs.10,000/- drawn in favour of "**ERNET India**", New Delhi from **Shri Anupam Srivastava, ERNET India** as per the schedule detailed below :

1	Issue of Tender Document	:	21/11/2015
2	Receipt of Queries		03/12/2015 (Queries after date 03/12/2015 by 5:00 P.M. will not be entertained)
3	Pre-bid meeting	:	14/12/2015 at 03:00 P.M. at ERNET India, 10th Floor, Jeevan Prakash Building, 25, K.G. Marg, New Delhi- 110001
	Response to Queries		22/12/2015
4	Receipt of Bids	:	08/01/2016 at 3:00 P.M.
5	Opening of Bids	:	08/01/2016 at 3:30 P.M.

Note : The Tender Document can also be downloaded from CPP portal/ERNET Web site. In such case, an amount of Rs.10,000/- in the form of Demand Draft/Banker's cheque drawn in favour of ERNET India would be required to be furnished along with the Part – I of the bid.

Any inquiries regarding clarification/interpretation/contents in connection with this Tender should be sent only in writing to the undersigned. The prospective Bidders must take acknowledgement of all inquiries/queries given to the undersigned.

ERNET India shall organize a Pre-Bid meeting on the queries submitted (by stipulated date & Time) by the Bidders on the scheduled date and time at ERNET India. ERNET India may incorporate any changes in the Tender based on acceptable suggestions received during the interactive Pre-Bid meeting. The decision of the ERNET India regarding acceptability of any suggestion shall be final in this regard and shall not be called upon to question under any circumstances. Only two persons for each intending bidder's organization, who will buy the tender, will be allowed to attend the Pre Bid Meeting. The Bidder will have to submit the photocopy of the receipt of payment made against tender fee at the time of Pre-Bid conference.

Response/reply to Queries/clarifications received within time frame as stated above shall be uploaded at CPP portal/ERNET India website. No reply in this regard shall be sent to individual bidders. Bidders are advised to keep visiting CPP Portal/ERNET India Website to get the details in this regard, if any, before submission of their bids on the due date/time.

ERNET India may, for any reason, whether at its own initiative or in response to a clarification requested by prospective bidders, modify the Tender Document by an amendment. The same will be posted on CPP/ERNET India's website.

The following instructions should be carefully noted:

5. ELIGIBILITY CRITERIA

a) For Bidders

- i) The bidder should have ISO 9001:2008 or equivalent, ISO 27001 or equivalent & ISO 20000 or equivalent or better quality certification against each of them. Supporting relevant documentary proof should be enclosed.

- ii) The quoted products should be of latest versions. The products being quoted by the bidder should not be declared as at “end-of-sale” and “end-of-support” by the respective OEM(Original Equipment manufacturer). Undertaking to this effect must be submitted from OEM. The bidder should also submit valid letter from the OEMs confirming following:
- Authorization for bidder to bid against this tender specifically
 - Undertake that the support including spares, patches, upgrades/updates, etc. for the quoted products/software shall be available for next 5years from the date of successful installation & acceptance of the project.
- iii) The bidder must enclose relevant copies of the customer purchase orders, scope of work, deliverables, time period of execution, project value and satisfactory work completion certificate from client for at-least One similar project of minimum Rs. 8 Cr. in single order executed in last five financial years for any Government Institutes/University/Organizations/PSU or Two similar projects of minimum Rs. 5 Cr. in each order executed in last five financial years for any Government Institutes/University/Organizations/PSU or Three similar projects of minimum Rs. 4Cr. in each order executed in last five financial years for any Government Institutes/University/Organizations/PSU. Similar project means IT projects including LAN/WAN/CAN/wireless/IT security.
- iv) The Bidder should have been in the business of Networks & IT infrastructure implementation and integration related activities for at least past 5 years. The Bidder shall submit the declaration duly signed and stamped by Bidder's authorized signatory regarding these along with the documentary proofs in the bid. Supporting relevant documentary proof should be submitted.
- v) The bidder must enclose a copy of at least one LAN/network work order having minimum of 10Kms of Fibre optical cable with at least 500 Fibre Terminations and 500 UTP nodes in any of the last five financial years for any Govt. educational institutes / University / Govt. entity / PSU.
- vi) The bidder must enclose a copy of at least one LAN/network work order having 500 ports on data network switches and at least one chassis based layer 3 switch in a single order in any of the last five financial years for any Govt. Institute/University/Govt. entity/PSU.
- vii) The bidder may be asked to demonstrate the offered product(s) at a short notice of seven days during the technical evaluation. An undertaking confirming the same should be submitted in this respect.
- viii) The bidder should not have been barred or black-listed by any of the central/state govt. departments/organizations/PSUs. A self-declaration certificate from the authorized signatory should be submitted.
- ix) The bidder should have annual average turnover of Rs. 100 Crores in below mentioned three financial years with minimum annual turnover of Rs. 75 Crores in each of these years. The Bidder should be profit making company in last three years with positive net worth. Attested audited copies of the bidders' annual reports for the years 2012-13, 2013-14 and 2014-15 have to be attached along with a certificate from a practicing Chartered Accountant on his letter head confirming annual turnover, net profit, positive net worth & average annual turnover during these years.

- x) The bidder should be a Company registered in India under the Indian Companies Act 1956 or a partnership registered under the India Partnership Act 1932 or a Society constituted under any ministry/Department of the Government of India and registered under the Societies Registration Act 1860 with their registered office in India for the last five years as on 31st March 2015. Copy of valid Certificate of Registration attested by Company Secretary/ Authorized Signatory should be submitted by the bidders.
- xi) The bidder should have an office in the Delhi state/ NCR with support centers manned with their own qualified engineers across India with a Toll Free number.
- xii) The bidder should give unconditional compliance & undertaking in respect of the following clause for all equipment/services/software which would be procured & installed by ERNET specifically in its own ERNET network only: "All the equipment & devices should be properly configured. There should not be any deliberated vulnerability left in the equipment. In case, any deliberate vulnerability is observed in the equipment later on, the bidder/OEM of the equipment/systems should be liable to penalty as per DoT Amendment of ISP license agreement for security related concern no. 820-01/2006-LR (Vol.II) Pt. dated 03-06-2011. An undertaking to this effect should be given by the bidder/OEM".

However, all equipment/services/software to be procured by ERNET for its customer institutes, universities, colleges, departments, organizations, etc. will not require above arrangement.

- xiii) The Bidder should have a country wide support infrastructure. The Resident Engineer & Project Manager as asked in the tender should be on direct role of the bidder and should be employed by the bidder in compliance with relevant Govt. acts of employment fulfilling statutory obligations including but not limited to provident fund, ESI, etc. An undertaking to this effect should be submitted by the Bidder.
- xiv) The bidder should be able to provide support services for the faulty systems/subsystem of equipment in conformity with the SLA as defined in this tender document.
- xv) All offered products, softwares & components should support seamless interoperability among them. There should be no compatibility issue among the supplied products, software & components etc. All offered products, softwares & components should be as per IEEE/ITU standards. An undertaking to this effect should be submitted by the bidder.
- xvi) All wireless equipment specifications are subject to Indian Government guidelines and any frequency/transmission power/Antenna Gain shall be in conformity with the Govt. rules & guidelines. An undertaking to this effect should be submitted by the bidder.
- xvii) The bidders should give clause-by-clause compliance for the technical specification of the equipments as in the tender in their technical bids. Also give unconditional compliance of all the terms & conditions as mentioned in the Tender document.
- xviii) The bidder must comply with the Integrity Pact (IP) as declared by CVC, Government of India as a preliminary qualification and sign the Integrity Pact (IP) as give at Annexure-VI of the tender

b) **For OEM(s)/Manufacturer(s)**

- i) OEMs whose products have been offered in the bid shall have Technical Assistance Centre(TAC) and shall have Toll Free Number for TAC to support the equipment. OEM(s) should have direct presence with their own office in India manned with their own engineers for minimum of last 5 years. Relevant documentary proof should be submitted.
- ii) The OEM(s) of data switching & Wireless LAN equipment being quoted/offered in the tender should have an installed base in India and should have atleast two installations of its data network switching(with minimum 2000 ports on data network switches and at least one chassis based layer 3 switch) & and Wireless (minimum 100 Access Points with Wireless LAN Controller) in Government department/organization/university in India. Relevant documentary proof should be submitted. OEM for WLAN equipment should have installed base of atleast 5000 Wi-fi access points in India. Relevant Documentary proof should be submitted. OEM of passive components should have atleast two installations with 10KM fiber optic cable with atleast 500 fiber terminations and 500 UTP nodes. Relevant documentary proofs should be submitted.
- iii) The OEM vendors should be profit making company in last three years with positive net worth. The OEMs should have minimum turnover of Rs. 100Crores(or equivalent other acceptable foreign currency) each year during the last three financial years. Relevant documentary proof confirming the above should be attached along with the bid by the bidders.
- iv) OEM should authorize maximum of TWO bidders only. The Bids received with a single OEM from more than two bidders would lead to rejection of all bids of that particular OEM. An Undertaking from OEM to this effect should be submitted.
- v) The OEM/bidder must have spares depots in the India with local logistics support and adequate spares for the equipment supplied. This is to ensure immediate delivery of spares parts. The bidder should furnish the details of the physical address and telephone number (s) of the Spares Depot (s)

Note: The Bidders are requested to furnish documents to establish their eligibility for each of the above clauses. Relevant portions, in the documents submitted in pursuance of eligibility criterion mentioned above, may be highlighted. If tender were not

accompanied by all the above documents mentioned, the same would be rejected. Undertaking for subsequent submission of any of the above document will not be entertained under any circumstances. However, ERNET India reserves the right to seek fresh set of documents or seek clarifications on the already / submitted documents.

Upon verification, evaluation / assessment, if in case any information including all documents furnished by the Bidder is found to be false / incorrect, their bid shall be summarily rejected, their EMD shall be forfeited and no correspondence on the same shall be entertained.

THE BID SUBMITTED BY ANY BIDDER NOT FULFILLING THE ELIGIBILITY CONDITIONS / CRITERIA STIPULTED ABOVE, WILL NOT BE CONSIDERED.

6. GENERAL CONDITIONS

1. The bidder must be an authorized representative of the products offered. The authority from the manufacturer/OEM must be submitted along with the bid. **The bids received without authority will be rejected outrightly.**

2. Bids should be submitted in two separate **sealed** covers. First cover indicating **“COVER FOR TECHNICAL BID”** should consist of only Bidder’s profile, Compliance sheets with supporting documents, all the documents as asked in support of Eligibility Criteria, technical solution, specification, design, configurations of the system/items offered, un-priced bill of material along with literature, pamphlets, drawing, Signed copy of the Integrity Pact (IP) as give at Annexure-VI of the tender etc. This cover should contain complete technical specifications, make, model, names of supplier/manufacturer and commercial terms etc. of the system/items offered. Price column in this cover should be kept blank. Second cover indicating, **“COVER FOR PRICE BID”** should consist of the price details as per the Price Schedule Format provided in the tender. **All the two covers should first be sealed separately,** and then should be kept **in a single sealed bigger cover.** This cover addressed by name to the officer signing this enquiry should be submitted before due date and time. All the covers should be clearly marked **“Bids for supply, Installation, commissioning & Integration of Goods/equipment/services for Wi-Fi enabled Campus Network & other IT infrastructure”**.

Please Note that Prices should not be indicated in the Technical Bid and should only be indicated in the Price Bid.

3. Bids should be valid for a minimum period of 180 days from the due date mentioned below. In exceptional circumstances, the ERNET may request the Bidder(s) for an extension of the period of validity of the bid. The request and the responses thereto shall be made in writing and transmitted through speed post/registered post/courier/fax. The validity of EMD shall also be suitably extended.

4. Envelope should bear the inscription

“Bid for supply, Installation, commissioning & Integration of Goods/equipment/services for Wi-Fi enabled Campus Network & other IT infrastructure”

“Tender Enquiry No. : EI-D/Tech/55-48/15

“Due Date & Time: 08-01-2016 at 3.00 P.M.”

“Due Date & Time for Opening of Bids: 08-01-2016 at 3.30 P.M.

5. The Bids must reach the undersigned on or before the due date, i.e., on **08-01-2016 by 3.00 P.M.** Bids received after the due date & time are liable to be rejected. In the event of due date being a closed holiday or declared Holiday for Central Government offices, the due date for submission of the bids will be the following working day at the appointed time & venue.

6. All imported items are to be quoted in **US\$** and other items/services/charges are to be quoted in INR for delivery at the premises of ERNET India/ end user sites or at anyother place in India as specified by ERNET India free of charge. All prices shall be fixed and shall not be subject to escalation of any description. The rates must be quoted as per the Performa provided in **Annexure-IIIA & Annexure-IIIB. Annexure-IIIA & Annexure-IIIB should be separately filled and submitted in two separate sealed envelopes which should be submitted in one sealed “Cover for Price Bid” as asked in clause 2 of the General Conditions above.** Also, during commercial evaluation of the price bid, ERNET India reserves the right to correct any of the arithmetical and/or tax rate errors in the bidders’ price bid subject to the condition that in no

circumstances ERNET India will be liable to pay any higher value against the Grand Total Value(GTV) quoted by the L1 bidder. Unit rates will be taken as the base for making arithmetical corrections.

6a. ERNET India and its customer/user institutes/organizations/ministries/depts. would like to avail custom duty exemptions by providing customs duty exemption certificate. Exemption Letter for Customs Duty, if required, shall be issued by concerned organization/institutes/ERNET India as and when required/asked for by the bidder. The Custom Duty, if any, shall be paid by the bidder and reimbursement will be taken from ERNET India, subsequently by submitting the relevant documents. All import of equipment will be facilitated by the bidder only.

7. Govt. Levies like sales tax, octroi, service tax, WCT etc., if any, shall be paid at actual rates applicable on the date of delivery. Rates should be quoted accordingly giving the basic price, Sales Tax etc., if any as per Annexure-IIIB. Please give all the Registration number of the firm along with the applicable taxes which have been shown in the Annexure-IIIB of the tender.

8. It may specifically be mentioned whether the Bid is strictly as per tender specifications/conditions. If not, deviations must be spelt out specifically. **In the absence of this, the quotation may be rejected.** Deviation on lower side of specifications will not be considered. **No deviations in terms & conditions** of the tender document will be accepted in any case.

9. ERNET India reserves the right to accept or reject any bid or cancel the tender proceedings without assigning any reason whatsoever. ERNET India shall not pay any costs incurred in the preparation and submission of any Bid.

10. The bidders should quote the products strictly as per the tendered specifications giving models, make and exact specifications. All the technical literature for the products offered by the bidder may be enclosed in the bid. **Incomplete quotations are liable to be rejected.**

11. Bidder shall sign all pages of the bid document including all enclosures and drawings forwarded with the bid.

12. The price shall be for delivery at desired destination in India including installation/commissioning and complete operationalization. In case of any discrepancy between rates mentioned in figures and words, the latter shall prevail. The selected bidder(s) shall be empanelled with ERNET India for a period of 18 months, which can be extended for a further period of one year as decided through mutual consent. Rates quoted shall be valid for the period of empanelment and the extended period. The empanelled bidder(s) shall have to honor all tender conditions and warranty maintenance support, in executing the purchase orders placed by ERNET India.

13. The bidder must quote for all the items of the Package as mentioned in the **Annexure-I**. The bidder not quoting all the items of **Annexure-I** will be summarily rejected. Items/Quantities can be varied (i.e. decreased or increased and/or dropped) vis-a-vis budget constraints and requirements. The price comparison shall be made package-wise.

14. ERNET India may waive any minor infirmity or non-conformity or irregularity in a bid or may seek any clarification on the bids, if so desired. The decision in this regard shall be taken by the concerned evaluation committees & their decision will be final.

15. Any attempt of negotiation direct or indirect on the part of the bidder with the authority to whom he has submitted the tender or authority who is competent finally to accept it after he has submitted his tender or any endeavor to secure any interest for an actual or prospective bidder or to

influence by any means the acceptance of a particular tender will render the tender liable to be excluded from consideration. The decision of ERNET India in this regard will be final & conclusive and no queries/communication will be entertained in this regard.

16. The bidders will have to arrange for all the testing equipment and tools required for installation, testing, maintenance etc.

17. ERNET India will have the right to reject the components/equipment supplied if it does not comply with the specifications at any point of installation/ inspection and also, if they are not latest.

18. The bidders should give clause-by-clause compliance for the technical specification of the equipments in their technical bids. Also give compliance of all the terms & conditions as mentioned in the Tender document. Conditional tenders shall not be accepted on any ground and shall be rejected straightway. If any clarification is required, the same should be obtained before submission of the bids.

19. **INSPECTION**

ERNET India or its representative shall have the right to inspect or to test the items to confirm their conformity to the ordered specifications. The supplier shall provide all reasonable facilities and assistance to the inspector at no charge to ERNET India. In case any inspected or tested goods fail to conform to the specifications, ERNET India may reject them and supplier shall replace the rejected goods with the goods in conformity with the specification required free of cost to ERNET India. Any delay due to above shall attract relevant penalty clauses of the tender.

20. **EARNEST MONEY DEPOSIT**

- i) Each bid must be accompanied by Earnest Money Deposit(EMD) of Rs.30,00,000/- (Rupees Thirty Lakhs only) shall be in the form of Demand Draft/Pay Order/EM Fixed deposit/Bank Guarantee of any Nationalized/Scheduled commercial Bank taken in the name of ERNET India, New Delhi. Bank Guarantee should be valid minimum for a period of 225 days from due date of the bid & be submitted as per the enclosed Performa. **Bids received without Earnest Money Deposit are liable to be rejected**
- ii) Earnest Money is liable to be forfeited and bid is liable to be rejected, if the bidder withdraw or amends, impairs or derogates from the tender in any respect within the period of validity of the tender.
- iii) If the successful bidder fails to furnish the performance Security within 15 days from the date of the placement of the purchase order, the earnest money shall be liable to be forfeited by ERNET India.
- iv) The earnest money of all the unsuccessful bidders will be returned after placement of order on the selected vendor. EMD submitted in the form of fixed deposit/BG will be returned as it is. In case of EMD in the form of DD/Pay order, No interest will be payable by ERNET India on the Earnest Money Deposit.
- v) To ensure adherence to rate contract, on signing of rate contract, the Earnest Money of successful bidder shall be returned after furnishing of Interest Free Security Deposit (SD) of equivalent amount of EMD in the form of Demand Draft/Pay Order/EMD Fixed Deposit/Bank Guarantee of any Nationalized/Scheduled Commercial Bank taken in the name of ERNET India, New Delhi which should be valid for the period of rate contract from the date of signing of rate contract with additional claim period of 30 days. If the successful bidder fails to furnish the Security Deposit, the earnest money of the successful bidder is liable to be forfeited by ERNET India. This Security Deposit will be in addition to the Performance Security stipulated in the tender document.

21. **PAYMENT TERMS:**

In case of any discrepancy between rates mentioned in figures and words, the later shall prevail.

The payment for Items quoted in US\$ would be released through irrevocable Letter of Credit(LC) after acceptance of the Purchase Order by the firm and subject to submission of Proforma Invoice and a Performance Security in conformity with Clause 24 below.

Payment in respect of rupee value components, 80% payment shall be made by ERNET India after delivery and satisfactory completion of installation, commissioning, testing and acceptance of the equipment as well as receipt of pre-receipted bill in duplicate. 20% payment would be released after expiry of the warranty period or 100% on satisfactory completion of installation, commissioning, testing and acceptance of the equipment if the firm had submitted the Performance Bank Guarantee of the amount equivalent to 20% as defined in clause 24(ii) below, which should be valid for the period of warranty as well as receipt of pre-receipted bill in triplicate.

For Passive Components: The payments for passive components will be made as per actual supplied/installed/consumed quantities/items within the overall purchase order(PO) value of Passive components. In case, there is variation of upto 2% of PO value then no extra payment will be made. In case variation is expected to exceed 2% then a written communication in this regard need to be send for prior approval of Competent Authority.

The eligible payments will be released to the bidders subject to the receipt of the funds from customer institutes/organizations/departments, etc.

22. **WARRANTY**

(i) Onsite warranty/AMC services shall be provided at the specified locations of installation of equipment supplied.

(ii) Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts free software upgrades/updates/renewals. The defects, if any shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. The comprehensive warranty shall be for a minimum period of **three years** from the date of acceptance of the equipment by ERNET India. **The bidders are also required to quote for Comprehensive AMC of two years after warranty period is over.** The Comprehensive AMC includes onsite warranty with parts and software updates/upgrades/renewals. The bids received without quotes for Comprehensive AMC would be out rightly rejected. AMC cost for two years will also be taken into account for commercial evaluation.

23A **Service Level Agreement (SLA):** After commissioning & acceptance, during warranty & AMC, the bidder(s) shall be responsible for the uptime of the equipment and shall conform with a SLA of maintaining the setup for 99.5% uptime on 24x7 basis. The uptime will be calculated over a twelve (12) month time frame.

The permissible downtime of 0.5% will further be subject to maximum downtime of 24 hours at a stretch at any instance. In case the same exceeds 24 hours at a stretch then penalty clause at Clause 23B below will be enforced. The same penalty clause will also be enforced in case the downtime exceeds the permissible total downtime as stated above in this clause.

23B Penalty clause for non conformance to above SLA:

i) **For critical components namely Switch, Wireless Controller & Authentication server:** ERNET India/End user may deduct Rs. 2000/- from the due payments or recovered from Bank Guarantee as the case may be for every 1 hours of down time at a stretch or in part up to total down time of 10 hours. This down time shall be calculated over and above the total hours of downtime permissible. Beyond 10 hours of down time, ERNET India/End user may deduct Rs. 5000/- from the due payments or recovered from Bank Guarantee as the case may be for every 1 hour of down time at stretch or in parts.

For non-critical components namely Wireless Access Point: ERNET India/End user may deduct Rs. 500/- from the due payments or recovered from Bank Guarantee as the case may be for every 1 hours of down time at a stretch or in part up to total down time of 10 hours. This down time shall be calculated over and above the total hours of downtime permissible. Beyond 10 hours of down time, ERNET India/End user may deduct Rs. 1000/- from the due payments or recovered from Bank Guarantee as the case may be for every 1 hour of down time at stretch or in parts.

ii) In any case, if the equipment is not made operational for 08 days from the time of reporting of fault, the Bank guarantee submitted by the bidder to ERNET India shall be invoked. Any payments (payable to bidder) shall not be paid too & will be adjusted as penalty. This will be deemed to be an event of default and ERNET India may terminate the contract.

24. PERFORMANCE SECURITY:

i) For US Dollar Value Equipments/goods: In addition to Bank Guarantee (BG) required as per para 24(ii) below, the successful vendor would also submit Bank Guarantee of equivalent amount of Dollar Value Equipments valid for a period of six months before opening of LC within a period of 20 days from date of purchase order, otherwise, LD clause may be made applicable. ERNET may consider to release this BG after satisfactory delivery & acceptance of equipment at end-user site/location. In case of successful installation, Competent Authority in ERNET India may consider to release the BG, in case there is a delay beyond 3 months in acceptance of equipment by the end-user without any fault on the part of the bidder.

ii) The successful bidder shall submit a Performance Security of 20% of the cost of the purchase order within 15 days of the placement of purchase order. The Performance Security may be in the form of Demand Draft/Pay Order/Bank Guarantee of any nationalized/scheduled bank. The Bank Guarantee should be valid for a minimum period of 42 months extendable to cover warranty period. In case supplier fails to deliver the items within delivery period or provide satisfactory after sales service within the warranty period, the Performance Security submitted by the firm is liable to be forfeited. Performance Security shall be released immediately after the warranty is over. No interest will be payable by ERNET India on the Performance Security.

25. DELIVERY PERIOD

The Delivery is required within 8 weeks from the date of opening of LC/placement of the purchase order. Any delay by the supplier in the performance of delivery of items shall render the supplier liable to any or all of the following sanctions-forfeiture of its i) Earnest Money Deposit, ii) imposition of liquidated damage as per clause 26 below or/and iii) cancellation of the purchase order for default.

Equipment/goods will be directly supplied at specified sites for installation. All the expenses involved in shipping the equipment to the ERNET India sites will be borne by the bidder. All aspects of safe delivery shall be the exclusive responsibility of the bidder. ERNET India will have the right to reject the component/equipments supplied, if it does not comply with the specifications at any point of installation/inspections. The installation shall be completed within three months from the date of delivery.

26. **LIQUIDATED DAMAGES(LD)**

In the event of the Bidder's failure to install & commission the system/items by the date/dates specified in this Purchase Order or extended period, ERNET India may at its discretion withhold any payment, as liquidated damages and not by way of penalty at the rate of 2.5% of the value of delayed item per week or a part of a week subject to a maximum of 20%. The amount towards Liquidated Damage would be recovered from the amount of Bank Guarantee as required vide clause 24 above or the amounts due to the bidder. The LD will be imposed only in case the delay is on part of the bidder.

27. Rates quoted by the bidder shall be final and no negotiation will be held. However, it would be subject to the discretion of the Competent Authority in ERNET India.

28. **CANCELLATION of TENDER**

ERNET India reserves the right to cancel the tender or modify the requirement without assigning any reason. ERNET India will not be under any obligation to give clarifications for doing the aforementioned.

29. ERNET India also reserves the right to modify/relax any of the terms & conditions of the tender by declaring / publishing such amendments in a manner that all prospective vendors / parties to be kept informed about it.

30. ERNET India in view of projects requirement may reject any tender(s), in which any prescribed condition(s) is/are found incomplete in any respect and at any processing stage.

31. **EMPANELMENT OF BIDDERS**

- (i) The empanelment under this tender, with all its terms & conditions, can be used by ERNET India for its own as well as for other Ministries/Depts. and/or any of its customers' requirements.
- (ii) Keeping in view the ERNET India's project commitments, ERNET India reserves the right to evolve a super-set of technically qualified accepted systems and subsystem, items of their brands and models for the entire range of systems covered by the Annexure-I of this tender so as to take care of the service delivery related aspects concerning the suitability of configuration needs matching the project requirements from time to time.
- (iii) ERNET India would empanel maximum of upto three bidders to cater it's users'/customers' and own requirements. The empanelment will be valid for a period of Eighteen (18) Months in the first instance from the date of empanelment. It may be extended for a further period of one year as decided through mutual consent (at ERNET's Option and mutual agreement with bidder(s) and depending upon the need for continuity of the hardware technology/architecture). The empanelled bidder(s) will supply, install & commission different types of Wi-Fi enabled Campus Network infrastructure equipment, accessories, services and related equipment at the rates finalized through this tender during the period of empanelment /extended empanelment.

- (iv) The empanelled bidder(s) shall have to provide acceptance to the empanelment offer issued by ERNET India for honoring all tender conditions and adherence to all aspects of fair trade practices in executing the purchase orders placed by ERNET on behalf of its customer/users/universities/institutions/ organizations/departments.
- (v) In the event of an empanelled bidder or the concerned division of the bidder is taken over /bought over by another company, all the obligations and execution responsibilities under the agreement with the ERNET India, should be passed on for compliance by the new company in the negotiation for their transfer.
- (vi) If the name of the product is changed for describing substantially the same in a renamed form; then all techno-fiscal benefits agreed with respect to the original product, shall be passed on to ERNET India and the obligations with ERNET India taken by the empanelled bidder(s) with respect to the product with the old name shall be passed on along with the product so renamed.
- (vii) If any product which is declared end of sale product by OEM during the period of empanelment /extended empanelment, in this case the bidder(s) should supply replaced model or next higher model/version of the product without additional cost as approved by ERNET India.
- (viii) In case of empanelled bidder(s) is found in breach of any condition(s) of tender/contract or supply order, at any stage during the course of supply / installation or warranty period, the legal action as per rules/laws, shall be initiated against the bidder(s) and EMD/Security Deposits shall be forfeited, besides debarring and blacklisting the bidder(s) concerned for at least three years, for further dealings with ERNET India. The work of such a bidder shall be distributed to other remaining bidder(s) in the empanelment in conformity with the distribution as indicated at clause 32(xiii & xiv) below.
- (ix) ERNET India may, at any time, terminate the empanelment/purchase order by giving written notice to the empanelled bidder(s) without any compensation, if the empanelled bidder(s) is/are blacklisted by any Govt. agency during the empanelment period or extended period, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to ERNET India. In case of termination, the work of such a bidder(s) shall be distributed to other remaining bidder(s) in the empanelment in conformity with the distribution as indicated in above clause (viii).
- (x) The empanelled bidder(s) should not assign or sublet the empanelment or any part of it to any other agency in any form. Any such eventuality shall result in termination of empanelment and forfeiture of Security Deposit/EMD concerning such bidder(s).
- (xi) ERNET India may, at any time, terminate the empanelment by giving written notice to the empanelled bidder(s) without any compensation, if the empanelled bidder(s) becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to ERNET India.
- (xii) During the empanelment, ERNET India reserves the right to float fresh tender and/or procure items through other sources of supply
- (xiii) No deviations from these terms and conditions will be accepted; violation thereof will lead to rejection of the bid and forfeiture of EMD/Security Deposit.

32. **EVALUATION of TENDER**

- i) The evaluation process of the tender proposed to be adopted by the ERNET India is indicative only and to provide the Bidders an idea of the evaluation process that the ERNET India may adopt. However, the ERNET India reserves the right to modify the evaluation process at any time during the Tender process, without assigning any reason, whatsoever, and without any requirement of intimating the Bidders of any such change.

- ii) When deemed necessary, during the evaluation process, the ERNET India may seek clarifications or ask the Bidders to make Technical presentations/demonstrations on any aspect from any or all the Bidders. However, that would not entitle the Bidder to change or cause any change in the substance of the tender submitted or price quoted.
- iii) A duly constituted Technical Evaluation Committee (TEC) will first select eligible Bidders on the basis of eligibility criteria of this tender. The Bids conforming to the eligibility criterion will be considered for further evaluation.
- iv) Technical Evaluation Committee (TEC) will shortlist Technical Bids on the basis of technical solution, design, conformity of technical specifications, parameters and features offered vis-à-vis tendered specifications requirements. If required, the short listed Bidders may be asked for a detailed technical presentation/discussion on the solution and products offered in the bid. Further, TEC may ask the bidder to bring any selected items/sub items of their quoted products for technical evaluation at ERNET India or any other location decided by TEC in specified time limit. In case, vendor fails to bring their quoted products within the stipulated time, for whatever reasons, their bid will not be considered for further evaluation. The names of technically short listed bidders will be announced to only those bidders who's bids will qualify for opening the Price/Commercial Bids.
- v) **In their own interest the bidders are advised to ensure that the goods/equipments quoted by them should conform to all tendered technical parameters/specifications and are functional. Goods/Equipments quoted and not meeting complete tender specifications or lower in specification will not be considered for evaluation.**
- vi) The Price Bids of only those Bidders short listed from the Technical Bids by TEC will be opened in the presence of their representatives on a specified date and time to be intimated to the respective Bidders by ERNET India, and the same will be evaluated by a duly constituted Commercial Evaluation Committee (CEC) and make the empanelment of the bidder(s).
- vii) A sample Bill of Material as in Annexure-I has been prepared & enclosed herewith which is for one large Institute/university. The technically short listed bids will be evaluated on the basis of price quoted by bidders as per Bill of Material (BOM) as in Annexure-I enclosed in the tender. The bidder should quote for attached BOM covering following points:-
 - All the items as at Annexure-I.
 - Wherever required, Module wise breakup is to be provided
 - Support on 24X7X365 basis
 - Comprehensive Warranty of three years
 - Quote for comprehensive AMC of two years (on per year basis) after warranty period is over.
- viii) The items & quantities provided in Annexure-I are only for calculation purposes for deciding L1(Lowest price bid), actual quantity and/or items may vary during supply & installation as per ERNET's own/customer requirements.
- ix) The commercial evaluation of the bids will be done on the basis of ownership of solution for period of five years.
- x) The Bidder must quote for all the items of the Package as mentioned in the **Annexure-I**. The bidder not quoting all the items of **Annexure-I** will be summarily rejected. The price comparison shall be made package-wise and empanelment shall be done at L1(lowest price bid). ERNET India has the right to choose any subset of the tender items for placement of purchase orders. During the period of empanelment, the purchase orders will be placed

as per the actual requirements of ERNET, own and/or other Ministries/Deptts and/or its customers for the items/sub-items & quantities on the unit rates finalized against this tender.

xi) Criteria for deciding L1 bidder and lowest unit rates for each item is as follows:

The lowest quoting vendor (L1) will be determined as mentioned below:

- 1) First Annexure-IIIA will be opened for all the **technically qualified bidders** on a specified date in presence of their representatives.
- 2) L1, L2, L3, L4..... bidders will be decided on the Gross Total Value (GTV) of this Annexure-IIIA.
- 3) After the L1 bidder is decided on the Gross Total Value (GTV), Annexure-IIIB submitted by L1 Bidder will be opened for deciding the lowest individual unit item rates for all the items of Annexure-I of this tender.
- 4) In case L1 bidder has failed to quote for all the items in Annexure-IIIB, his bid will be rejected and his EMD will be forfeited and the tender re-floated.
- 5) In the event of any mismatch in the GTV value mentioned at Annexure-IIIA and total of Annexure-IIIB of the L1 Bidder, the following criteria will be adopted to remove the discrepancy between these two values:
 - a) When Grand Total Value given in Annexure-IIIA is greater than the Grand Total Value given in Annexure-IIIB:

The value given in Annexure-IIIB will be taken as the value for Annexure-IIIA.

- b) When Grand Total Value given in Annexure-IIIA is less than the Grand Total Value given in Annexure-IIIB:

The value given in Annexure-IIIB will be replaced with the value given in Annexure-IIIA and the item wise value for each item in Annexure-IIIB will be reduced on Pro-Rata basis and consequently unit values will be worked out & fixed.

- 6) If L1 bidder fails to accept the individual unit rates rationalized as per the above procedure, his bid will be treated as cancelled and EMD of such defaulting bidder will be forfeited and the tender would be re-floated.
 - 7) Thus the L1 bidder and the lowest unit rates (for individual items/services) shall be decided as per the procedure mentioned above. After deciding the L1 bidder & lowest unit rates as above, the empanelment shall be done as per the following procedure:

xi) In view of country wide reachability, ERNET India may empanel maximum of three bidders including L1 bidder at L1 price bid subject to availability of technically qualified bidders. After discovery of L1 bidder with L1 prices in conformity with the above clause, the subsequent higher bidders(starting from L2 and onward) other than L1 bidder shall be offered option to match the L1 price for empanelment. The bidder(s) who will refuse to match the L1 price, their EMD will be returned after complying with the stipulations as mentioned in the clause 20 herein above. In case all the next two bidders accept & match the L1 price, all the three bidders(L1 & subsequent two bidders(L2 & above)) will be empanelled and the purchase orders shall be released as per distribution defined below. In case the next bidder refuse to match the L1 price, the option to match the L1 price shall be made to the next higher bidder & so on.

xii) In the event of all the higher bidders next to L1 bidder refuse to match the L1 price, then only L1 bidder will be empanelled and purchase orders shall be released for 100% works to the L1 bidder on L1 prices.

xiii) In view of the above, the distribution of work will be done as follows:

The distribution of work will be done customer-wise without dividing the work of one customer. Each selected empanelled bidder will get work for each customer distributed using First-In-First-Out method (FIFO method). While distributing the work in this manner, it will be ensured that the work in hand as on the date of empanelment will be distributed to each of the empanelled bidder starting with the highest project value to L1, subsequent to L2 thereafter lowest to L3. Thereafter, within the overall limit of Rs.60.00 Crores, the total value of work, the distribution of subsequent work will be in the ratio mentioned in the table below to the maximum possible extent.

	Standing of the bidders in ascending order ➡	L1	1 st bidder to match L1 price	2 nd bidder to match L1 price
S. no.	Number of technically qualified bidders who agree to match the L1 (below) ↓	%	%	%
1	if 2 bidders match the L1	40	30	30
2	if 1 bidders match the L1	60	40	--
3	if 0 bidders match the L1	100	--	--

%(percentage) distribution shall be to the nearest approximation possible. The distribution is based on total value of Rs. 60.00 Cr. of works.

The subsequent projects will be awarded sequentially to the empanelled bidder while ensuring the above mentioned distribution ratio. Under such circumstances, a situation may arise that L2 and L3 bidder may not get any subsequent work for maintaining the above mentioned distribution ratio.

xiv) The ratio proportion will be evaluated at the completion of every year of service and accordingly be readjusted subject to technical feasibility and service performance.

33. **SCOPE OF WORK**

- i) The bidder will carryout the work at user sites/locations as specified by ERNET India across India and will be responsible for total system integration and execution of project.
- ii) The bidder will try & reuse the item available to the extent possible subject to its functionality & feasibility.
- iii) The bidder will carryout the feasibility sites surveys, prepare the drawings, laying & cable route plans, rack locations, node placement, Wi-Fi access points placement, etc. for the Wi-Fi enabled Campus Network infrastructure in consultation with ERNET/end-user.
- iv) The bidder will design, supply, install, commission, integrate and does maintenance of Wi-Fi enabled Campus Network & other IT Infrastructure as per requirement in conformity with Schedule of Requirement (Annexure-I)(any subset of items & quantities), Technical Specifications (Annexure-II) and terms & conditions of the tender. The bidder will ensure to install the supplied systems and make it operational on the network and provide maintenance for Five years.
- v) The bidder shall deliver and implement the technologies in conjunction with a set of best practices guidelines & industry standards.
- vi) The bidder will ensure smooth integration of the offered equipment with any existing equipment/network at User sites/locations specified.
- vii) The bidder will provide user manual to end-user detailing operations of the equipment and on-site user level training at the time of installation.
- viii) The bidder will submit project plan after consultation with ERNET/End-user within one week from the date of purchase order.

- ix) The Bidder has to ensure that during the execution of the project they do not damage or disrupt the existing services under and above the ground.
- x) The Bidder has to comply with the security policy of the ERNET/End-user and non-disclosure agreement.
- xi) The methodology of conduiting & cabling and installation work, to be adopted, has to ensure minimum damage to the existing finish and no loss to the aesthetic beauty of the floors & Walls. Any damage to the existing flooring / walls etc. shall be made good by the bidder.
- xii) The bidder shall organise technical training about the Wi-Fi Campus Network equipment after installation and commissioning has been completed. Training will be provided on no additional cost for a batch of 5-6 people for 2 days at the place of installation. All the training material will be provided by the bidder.
- xiii) The bidder will ensure the availability of services from professionally qualified team during implementation of the project and to provide the required on-site warranty & maintenance for a period of five years.
- xiv) The Bidder will be liable for any hardware and software up-gradation for maintenance without any extra cost during warranty period.
- xv) On completion of the work the bidder shall submit the detailed diagram/drawings & documentation of the project to the end user/ERNET and obtain a certificate from the End user, which will be submitted to ERNET along with the bills.

34. INDEMNITY

The selected bidder shall indemnify the ERNET India/End-user departments against all third party claims of infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied items and related services or any part thereof. ERNET India/End-user department stand indemnified from any claims that the bidder's manpower may opt to have towards the discharge of their duties in the fulfillment of the purchase orders. ERNET India/End-user department also stand indemnified from any compensation arising out of accidental loss of life or injury sustained by the bidder's manpower while discharging their duty towards fulfillment of the rate contract and purchase orders. The bidder shall solely responsible for any damage, loss or injury which may occur to any property or to any person by or arising out the execution of the works or temporary works or in carrying out of the contract otherwise than due to the matters referred to in this agreement hereinbefore. The bidder would ensure for observance of all labor and other laws applicable in the matter and shall indemnify and keep indemnified the ERNET/its customers against the effect of nonobservance of any such laws.

35. FORCE MAJEURE

If at any time, during the continuance of the empanelment, the performance in whole or in part by either party of any obligation under the empanelment is prevented or delayed by reasons of any war, hostility, acts of public enemy, civil commotion, sabotage, act of terrorism, fires, floods, explosions, epidemics quarantine restrictions, strikes, lockouts or acts of God (hereinafter referred to as "events"), provided notice of happenings of any such event is duly endorsed by the appropriate authorities/chamber of commerce in the country of the party giving notice, is given by party seeking concession to the other as soon as practicable, but within 21 days from the date of occurrence and termination thereof and satisfies the party adequately of the measures taken by it, neither party shall, by reason of such event, be entitled to terminate the empanelment, nor shall either party have any claim for damages against the other in respect of such nonperformance or delay in performance, and deliveries under the empanelment shall be resumed as soon as practicable after such event has come to an end or ceased to exist and the decision of the purchaser as to whether the deliveries have so resumed or not, shall be final and conclusive, provided further, that if the performance in whole or in part or any obligation under the

empanelment is prevented or delayed by reason of any such event for a period exceeding 60 days, the purchaser may at his option, terminate the empanelment.

36. TERMINATION FOR DEFAULT

- i) Default is said to have occurred
 - a. If the bidder fails to deliver any or all of the services within the time period(s) specified in the purchase order or any extension thereof granted by ERNET India.
 - b. If the bidder fails to perform any other obligation(s) under the empanelment
- ii) If the bidder, in either of the above circumstances, does not take remedial steps within a period of 30 days after receipt of the default notice from ERNET India (or takes longer period in spite of what ERNET India may authorize in writing), ERNET India may terminate the empanelment / purchase order in whole or in part. In addition to above, ERNET India may at its discretion also take the following actions:

ERNET India may procure, upon such terms and in such manner, as it deems appropriate, goods similar to the undelivered items/products and the defaulting bidder shall be liable to compensate ERNET India for any extra expenditure involved towards goods and services to complete the scope of work in totality and/or 20% of the total value of purchase order as cancellation charges whichever is higher through invocation of PBG.

- iii) ERNET India may at any time terminate the purchase order / empanelment by giving one month written notice to the bidder, without any compensation to the bidder, if the bidder becomes bankrupt or otherwise insolvent.

37. ARBITRATION

- i) In case any dispute or difference arises out of or in connection with or the carrying out of works (whether during the progress of the works or after their completion & whether before or after the termination, abandonments or breach of contract) except as any of the accepted matters, provided hereunder, the parties hereto, shall first endeavor to settle such disputes of differences amicably.
- ii) If both the parties fail to reach such amicable settlement, then either party (The Purchaser or Bidder) may (within 20 days of such failure) give a written notice to the other party requiring that all matter in dispute or difference be arbitrated upon. Such written notice shall specify the matters which are in difference or differences of which such written notice has been given and no other shall be referred to the arbitration of a single arbitrator, to be appointed by both the parties or in case of disagreement as to the appointment of a single arbitrator, to that of two arbitrators, one to be appointed by each party or in case of said arbitrators not agreeing then, to the umpire to be appointed by the arbitrators in writing before entering upon the references. Provisions of Indian Arbitration & Conciliations Act, 1996 or any statutory modification or reenactment thereof and rules framed there under from time to time shall apply to such arbitration.
- iii) Venue of arbitration shall be New Delhi.
- iv) The arbitrators or arbitrators appointed under this Article shall have the power to extend the time to make the award with the consent of parties.
- v) Pending reference to arbitration, the parties shall make all endeavors to complete the work in all respect. Disputes, if any, will finally be settled in the arbitration.

- vi) Upon every or any such references to the arbitration, as provided herein the cost of and incidental to the reference and Award respectively shall at the discretion of the arbitrator, or the umpire, as case may be.
- vii) The award of arbitrator or arbitrators, as the case may be, Shall be final and binding on the parties. It is agreed that the Bidder shall not delay the carrying out of the works by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all due diligence. The Purchaser and the Bidder hereby also agree that arbitration under this clause shall be the condition precedent to any right of action under the contract except for as provided for in the Tender.

38. APPLICABLE LAW

- i) The bidder shall be governed by the laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/processing.
- ii) All disputes in this connection shall be settled in Delhi jurisdiction only.
- iii) ERNET India reserves the right to cancel this tender or modify the requirement without assigning any reasons. ERNET India will not be under obligation to give clarifications for doing the aforementioned.
- iv) ERNET India also reserves the right to modify/relax any of the terms & conditions of the tender.
- v) ERNET India, without assigning any further reason can reject any tender(s), in which any prescribed condition(s) is/are found incomplete in any respect.
- vi) ERNET India also reserves the right to award works/supply order on quality/technical basis, which depends on quality/capability of the system and infrastructure of the firm. Bidder(s) are, therefore, directed to submit the tender carefully along with complete technical features of the products/systems as well as other documents required to access the capability of the bidder.

39. Care of work

From the commencement to the completion of the works, the bidder should ensure to take full responsibility for the care thereof and of all temporary works and in case any damages loss or injury happens to the works or to any part thereof or to any temporary works due to lack of precaution or negligence on the part of Bidder, the loss shall be made good at its own cost.

40. Damage to person and property

The bidder shall (except, if and so far as this agreement provides otherwise), indemnify and keep indemnified the ERNET & its all customers against all losses and claims for injuries or damage to any person or property arising out of or in consequence of the construction and maintenance of the works by them and against all claims demands, proceedings, damages, loss charges and excesses whatsoever in respect of or in relation thereof.

41. Domestic Manufacturer Clause

1. Preference will be given to domestically manufactured electronic goods in procurement. Guidelines as per Govt. notification No. 8(78)/2010-IPHW dated 10-2-2012, and subsequent amendments/clarifications will be followed for implementation. Bidders must submit an undertaking on notarized Rs. 100/- stamp paper as per **Annexure-V: PMA AFFIDAVIT** mentioning the percentage of domestic value addition (in terms of BOM) for each quoted item/product under a schedule to avail any applicable preference at the time of placing of purchase orders.
2. Bidders who do not provide the undertaking shall not be considered for receiving this preference.
3. The empanelment of bidders quoting false information will be cancelled and the EMD will be forfeited.

42. Defect Liability period

The bidder shall arrange for maintenance for a period of warranty from the date/dates of installation of the project with regard to rectification/removal of defects if any observed during this period. If the bidder does not arrange to rectify the defects observed during the maintenance period within a reasonable time, the ERNET/End user shall be at liberty to get such defects rectified at the cost and risk of the bidder.

43. Pert/CPM/Time schedule Chart

At the outset of the works, the bidder will submit a Pert/CPM/Time schedule chart bringing out completion of various activities in the project for approval of ERNET/its customers. Thereafter, the bidder will submit monthly implementation progress for each of the assigned project. While getting the project executed, apart from adherence to time schedule the bidder shall strictly adhere to quality norms applicable. In case of delay of the project and/or non adherence to the norms as set in the tender, suitable penalty clauses as per tender will be attracted.

44. MISCELLANEOUS

- i) The empanelment under this tender is not assignable by the selected bidder(s). The selected bidder(s) shall not assign its contractual authority to any other third party. The selected bidder(s) shall be obliged to render services /supplies to ERNET India and its customer organisations. Any default or breach in discharging obligations under this tender by the selected bidder(s) while rendering services / supplies to ERNET India or its customers, shall invite all or any actions / sanctions, as the case may be, including forfeiture of EMD, security deposit, invocation of performance guarantee stipulated in this tender document.
- ii) The decision of ERNET India arrived at as above will be final and no representation of any kind will be entertained on the above. Any attempt by any Bidder to bring pressure of any kind, may disqualify the Bidder for the present tender and the Bidder may also be liable to be debarred from bidding for ERNET India tenders in future for a period of at least three years.
- iii) Any conditions mentioned in their tender bids by the bidders which are not in conformity to the conditions set forth in the tender will not be accepted by ERNET India. All the terms and

conditions for the supply, testing and acceptance, payment terms penalty etc. will be as those mentioned herein and no change in the terms and conditions set by the bidders will be acceptable. Alterations, if any, in the tender bid should be attested properly by the bidders, failing which the bid will be rejected.

- iv) ERNET India may use this tender for executing any projects anywhere in India during the validity of this tender empanelment.
- v) ERNET India reserves the right to modify and amend any of the above-stipulated condition/criterion depending upon Project priorities vis-à-vis urgent commitments. ERNET India also reserves the right to accept /reject any bid, to cancel / abort tender process and / or reject all bids at any time prior to award of empanelment, without thereby incurring any liability to the affected agencies on the grounds of such action taken by the ERNET India.
- vi) Any default by the bidders in respect of tender terms & conditions will lead to rejection of the bid & forfeiture of EMD/Security Deposit.

45. This Tender document is not transferrable. Bidders are advised to study the tender document carefully. Submission of bid shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications. The response to this tender should be full and complete in all respects. Incomplete or partial bids shall be rejected. Bidders shall bear all costs associated with the preparation and submission of the bid, including cost of presentation and demonstration for the purposes of clarification of the bid, if so desired by ERNET. ERNET shall in no event be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

46. During the validity of the panel including the extended period, if any, if the Vendor quotes, sells or exhibits written intention to sell any System or sub-system of the same or equivalent configuration to any other Department/ Organization at a price lower than the price fixed for ERNET under similar terms and conditions, the vendor shall voluntarily pass on the price difference to ERNET. The effective date will be the date of quoting lower rates by the bidder in the bid/quote.

Yours faithfully,

Registrar & CPO
ERNET India

Schedule of Requirement(Bill of Material)**A. Active Equipment & Components**

S.No.	Description	Quantity
1	Core Switch	
i	Core Switch: Gigabit layer2 and Layer3 switch with console/auxiliary ports, Redundant Switch Fabric/CPU and RPS along with all other accessories and following modules/components:	2
a	10GBaseLR single mode Fiber ports	16
b	1000BaseLx ports	6
c	48 port 10/100/1000Base-T module	2
2	Zonal Switch-type1	
i	Gigabit layer2 and Layer3 switch with console/auxiliary ports and RPS alongwith all other accessories and following modules/components:	6
a	1000Base-Lx fiber ports	75
b	10 GBaseLR Single mode fiber port	6
d	1 Gigabit Copper port(RJ45)	42
3	Zonal Switch-type2	
i	Gigabit layer2 and Layer3 switch with console/auxiliary ports and RPS alongwith all other accessories and following modules/components:	2
a	1000Base-Lx fiber ports	20
b	10 GBaseLR Single mode fiber port	2
d	1 Gigabit Copper port(RJ45)	14
4	Access Switch - Layer2 with console/auxiliary ports along with all other accessories and required modules/components:	
i	24 port PoE 10/100/1000 Mbps (Ethernet-RJ45) switch with 2 1Gig/2 10Gig uplinking Ports with SFP+ support	135
ii	24 port 10/100/1000 Mbps (Ethernet-RJ45) switch with 2 1Gig/2 10Gig uplinking Ports with SFP+ support	50
a	1000BaseT SFP	270
b	1000BaseLX SFP	50
c	10 Gigabit ports (Single mode fiber optic)	10
5	Network Management Software(NMS) for 100 switches	1
a	Additional licenses for 50 switches for above NMS	2
6	Wireless Access System(WLAN)	
i	Wireless LAN Controller/switch(type1) with 2 Gigabit Ethernet uplinks for 100 802.11a/b/g/n/ac Access Points provided in high availability with all accessories and Management software	3
a	Additional licenses for 50 Access Points	22
ii	Wireless LAN Controller/switch(type2) with 2 Gigabit Ethernet uplinks for 500 802.11a/b/g/n/ac Access Points provided in high availability with all accessories and Management software	1
a	Additional licenses for 100 Access Points	2
iii	Wireless Access Points supporting 802.11a/b/g/n/ac and with suitable antenna	1367
iv	Wireless Access Points supporting 802.11a/b/g/n/ac and with suitable antenna (outdoor with necessary environment protections)	12
7	Firewall: Appliance based Hardware firewall with minimum 4x 1Gigabit Ethernet ports	1

8	IPS: Appliance based Hardware IPS with minimum 6x 1Gigabit Ethernet ports	1
9	IT Infrastructure- Central site	
i	Latest Servers with Windows server 2008 or latest	2
ii	Latest Servers with Enterprise Linux Server	1
iii	KVM switch, Keyboard & display	1
	User Authentication System	
v	Racks for above with fans, power strips, doors, cable managers, accessories, etc	1
10	Uninterrupted Power Supply (UPS)	
i)	10KVA online UPS with 1 hour battery backup	2
ii)	5KVA online UPS with 1 hour battery backup	6
iii)	1KVA UPS with 30 minutes battery backup	40
11	Supply, Installation, testing and commissioning of 5.8 GHz Ethernet Point to Point (PTP) Radio Set of 200 Mbps Aggregate throughput coverage up to 15 Km with Integrated or External Antenna	4
12	Supply, Installation, testing and commissioning of 5.8 GHz Ethernet Base Station Sector Radio set of 250 Mbps aggregate throughput coverage upto 15 km (for Point to Multipoint connectivity)	4
13	Supply, Installation, testing and commissioning of 5.8 GHz Ethernet Customer Premises Equipment Radio set of 25 Mbps aggregate throughput coverage upto 15 km with Integrated or External Antenna	4
14	Resident Engineer for facility management for 8 hours shift per day with 3 years Diploma/degree in the relevant field and atleast 2 years experience in the configuration, management and troubleshooting of LAN, IT infrastructure and VC being provided under the project.(per year basis)	2
15	Full time Project Manager (PM) to handle various ICT Infrastructure & Networking projects, having a Degree in Engineering/Technology in the relevant field with minimum four years experience in LAN/WAN, ICT and project management. (per year basis)	1
16	Annual comprehensive maintenance charges per year in percentage (%) after three years of warranty(unit in year)	2
17	Any other item-please specify	

B. Passive Components

S.No.	Description	Denomin ation	Qty
1	Feasibility Study, Site Survey, project plan specifying layout plan of Network components and Bill of Material of the Network devices & equipment, etc.	per site	1
2	Supply & Fixing of 1", 1.5" PVC duct (Pipe) for UTP cables – (ISI Marked)		
i)	1 inch	per meter	23923
ii)	1.5 inch	per meter	14354
3	Supply & Fixing of PVC duct (Channel) for UTP cables - (ISI marked)		
i)	1 inch	per meter	14354
ii)	1.5 inch	per meter	6698
iii)	2 inch	per meter	4785
4	UTP Cable Laying	per meter	95690
5	Installation of 24 Port Jack Panels & termination of UTP Cat6	per unit	135

	cable on Jack Panel		
5a	Labeling of jack panels 24 ports) and nodes	per unit	135
6	Installation & termination of information outlets(includes termination Cat 6 cables on I/O)	per node	1367
7	Testing of laid cables for the nodes(UTP)	per node	1367
8	Supply & installation of 19" Surface & Wall Mount Racks with platform& proper support for brackets, Racks filled with Casters, Front & rear doors, Power distribution unit & Fans. Cable Manager (Horizontal & Vertical) and all accessories-veropresident/Rittal/HCL/Valrack/equivalent		
i)	12U	per unit	40
ii)	27U	per unit	8
iii)	42U	per unit	8
9	Installation & termination of single mode fiber optic cable (Armored12 core) and cabling components		
i)	Fiber Optic cable laying with cable root marker and with route survey and documentation	per meter	5660
ii)	Supply, Installation and fixing of GI pipe underground and on the surface, Class B Type(ISI marked)		
	1) 1 inch	per meter	849
	2) 2 inch	per meter	566
iii)	Excavation & resurfacing of soil upto 1 meter depth		
	Hard Soil/concrete	per meter	566
	Soft Soil	per meter	3396
v)	Supply & Installation of HDPE Pipe – ISI/TEC Approved		
	40/33mm HDPE Duct Pre lubricated	per meter	4528
	120mm dia DWC pipe across the road by trench less method	per meter	283
vi)	Cable pulling pit made of reinforced concrete & brick walls with removable covers (stone/slab)	per unit	60
vii)	SC connector/pigtail splicing/termination on fiber optic cable (with support of proper buffer tubing & termination of fibers in Fiber Termination/Interconnection unit with SC couplers)	per connector	1044
viii)	Performance testing of laid Fiber optic cable (per core) for continuity, length, & optical power loss as per EIA/TIA 568 & EIA-TIA - 455-60 or latest and documentation of the results.	per core	522
10	Supply of UTP Cable & components		
i)	Cat6 Cable	per meter	95690
ii)	Cat6 I/O Surface Mount	per unit	1367
iii)	Cat6 Jack Panel 24 Ports, 19" Rack Mount	per unit	135
iv)	Cat6 Patch cords (1 mtrs)	per unit	2734
v)	Cat6 Patch cords (2 mtrs)	per unit	20
11	Supply of Single Mode Fiber optic Cable & components		
i)	Outdoor fibre cable - 12 core		
	Armored fiber cable single mode (12 Cores)	per meter	5660
ii)	Fibre LIUs, 19" rack mount		
	12 port LIU with SC couplers	per unit	75
	24 port LIUs with SC Couplers	per unit	53
iii)	Fibre Connectors		
	SC Connector/pigtail - Single mode (SM)	per unit	1044
iv)	Fibre Duplex patch cords		
	Patch Cord single mode Fiber SC - SC Single mode(suitable connector as per active device) (3m)	per unit	178
12	Site certification for minimum 20 yrs. Warranty from OEM of 10	per site	1

	& 11 above		
13	Media Convertors Managed 10/100/1000 Ethernet(Fiber optic to Copper)	per unit	24
14	Metal Poles for Outdoor Wi-Fi Access Points upto 6mtr high and dia.5.5 inches with lockable iron hut/box size to accommodate the Wi-Fi access point & all other accessories	per unit	12
15	Pole & Mast -		
i)	Supply, installation and Erection of Pole with step-up ladder and strut support including civil Foundation and earthing. (per meter rate to be provided)	per unit	8
ii)	Supply, installation and erection of self supporting GBT/RTT Mast including Foundation work, aviation light, Mast earthing and suitable for wind velocity up to 140Km/hr of IS: 875 (part 3) 1987. And as per designs and drawings approved duly by Structural Engineering Research Centre (SERC), Chennai or any Indian Institute of Technology. Mast shall be capable of carrying a head load of 15 Kg (Antenna plus ODU). (per meter rate to be provided)	per unit	8
15	Annual comprehensive maintenance charges per year in percentage (%) after three years of warranty(unit in year)	per year	2
16	Any other item-please specify		

Technical Specifications

A. Active Equipment & Components

1. Core Switch

S.no.	Technical Specifications
1	Should be a modular chassis based switch having minimum 8 payload slots with redundant CPU/Switch fabric and redundant power supply
2	Should have centralized/distributed switching architecture, each module should be provisioned with adequate hardware/software to support the same.
3	Dual Redundant Switch Fabric/CPU should support minimum 5 Tbps switch fabric capacity per switch. There should not be any performance degradation in case of any switching/routing engine failure
4	In the event of failure of one switching/routing engine, forwarding should not stop and failover from one engine to other should be statefull
5	Switch should support simplify the changes through In-Service OS upgrade mechanism with a minimal disruption of traffic through upgrade process.
6	Switch should support Netflow or J-flow or equivalent. If it is given as services on a module, at least two of those modules shall be quoted to ensure redundancy of the solution.
7	Minimum 3.5 Bpps forwarding rate should be supported.
8	Should have hardware based unicast, multicast and broadcast suppression.
9	Should support multi-layer switching, Layer 2 (MAC), Layer 3 (IP address) and Layer 4 (TCP UDP port) switching and application classification and redirection
10	Support for 10/100/1000 BASE-T, 1000 BASE-SX, LX, LH ,GBIC/SFP, 10-Gig SR/LR/ZR and 40-G
11	Chassis should support upto 48 Nos. of 40-Gig non-blocking ports.
12	Chassis should support upto 192 Nos. of 10-Gig non-blocking ports.
13	Should support a mechanism to detect connectivity issues with both fiber and copper cabling to ensures that a partially failed link is shut down on both sides, to avoid L2/L3 protocol convergence issues
14	Should have IEEE compliance for 802.1Q VLAN, 802.1p, 802.1d STP, 802.3ad, 802.1w RSTP, 802.1AE, 802.1s MSTP, 802.3ad LACP, IEEE 802.1ab Link Layer Discovery Protocol.
15	Should have 128K MAC addresses
16	Should have minimum 4K active VLAN support
17	Should have basic Routing-Static IP routing, RIP v1/v2 and policy based routing
18	Should have hardware enabled advance IP routing protocols OSPF, OSPFv3, BGPv4, PIM-SSM etc.
19	Should have VRRP or equivalent for redundancy
20	Should have IGMP v1, v2, v3
21	Switch should support Multicast QoS, Multicast ACL, Multicast Netflow/jFLow/ SFLow,
22	Should support minimum 32K IPv4 and 16K IPv6 multicast entries.
23	Should support minimum 256K IPv4 and 128K IPv6 routes.
24	Support VRF-Lite or equivalent for L3 virtualization
25	Shall have Diff Serv QoS configuration on all ports

26	Should support minimum four queues per port in hardware
27	Switch should support high availability features like Stateful switchover and Non-Stop forwarding
28	Should have N+1 /1+1 Redundant Power Supply from day one
29	Should have Hot Swap ability on all modules, Power Supply and Fan Tray
30	Should have Filters/Access-List on all ports
31	Should have 802.1x user authentication and accounting
32	Switch should support VRF-Lite or equivalent
33	Switch should support minimum 128k QoS ACLs and Security ACLs.
34	Should support DHCP snooping to allow administrators to ensure consistent mapping of IP to MAC addresses
35	Switch should support MACsec.
36	Switch should support Application Visibility and Control.
37	Switch should support minimum 512K NetFlow/ jflow/sFlow enteries
38	Should have TACACS+/RADIUS enabled.
39	Should have SSHv1 , SSHv2, SNMPv1, SNMPv2, SNMPv3 and NTP support
40	Switch should be IPv6 Certified/ Ready Logo
41	Switch should be common criteria Certified
42	For smooth, seamless and easy manageability, operation, interoperability and maintenance, the bidder should offer/quote all the switches(Core Switches, Zonal Switches & Access Switches) of the same make (OEM) and must be managed by the same NMS offered/quoted.

2. Zonal Switch-type1

S.no.	Technical Specifications
1	Should be a modular chassis based switch having minimum 5 payload slots with redundant CPU/Switch fabric and redundant power supply
2	Should have centralized/distributed switching architecture, each module should be provisioned with adequate hardware/software to support the same.
3	Dual Redundant Switch Fabric/CPU should support minimum 2 Tbps switch fabric capacity per switch. There should not be any performance degradation in case of any switching/routing engine failure
4	In the event of failure of one switching/routing engine, forwarding should not stop and failover from one engine to other should be statefull
5	Switch should support simplify the changes through In-Service OS upgrade mechanism with a minimal disruption of traffic through upgrade process.
6	Switch should support Netflow or J-flow or equivalent. If it is given as services on a module, at least two of those modules shall be quoted to ensure redundancy of the solution.
7	Minimum 1.5 Bpps forwarding rate should be supported.
8	Should have hardware based unicast, multicast and broadcast suppression.
9	Should support multi-layer switching, Layer 2 (MAC), Layer 3 (IP address) and Layer 4 (TCP UDP port) switching and application classification and redirection
10	Support for 10/100/1000 BASE-T, 1000 BASE-SX, LX, LH ,GBIC/SFP, 10-Gig SR/LR/ZR and 40-G
11	Chassis should support upto 24 Nos. of 40-Gig non-blocking ports.

12	Chassis should support upto 96 Nos. of 10-Gig non-blocking ports.
13	Should support a mechanism to detect connectivity issues with both fiber and copper cabling to ensures that a partially failed link is shut down on both sides, to avoid L2/L3 protocol convergence issues
14	Should have IEEE compliance for 802.1Q VLAN, 802.1p, 802.1d STP, 802.3ad, 802.1w RSTP, 802.1AE, 802.1s MSTP, 802.3ad LACP, IEEE 802.1ab Link Layer Discovery Protocol.
15	Should have 128K MAC addresses
16	Should have minimum 4K active VLAN support
17	Should have basic Routing-Static IP routing, RIP v1/v2 and policy based routing
18	Should have hardware enabled advance IP routing protocols OSPF, OSPFv3, BGPv4, PIM-SSM etc.
19	Should have VRRP or equivalent for redundancy
20	Should have IGMP v1, v2, v3
21	Switch should support Multicast QoS, Multicast ACL, Multicast Netflow/jFlow/ SFlow,
22	Should support minimum 32K IPv4 and 16K IPv6 multicast entries.
23	Should support minimum 256K IPv4 and 128K IPv6 routes.
24	Support VRF-Lite or equivalent for L3 virtualization
25	Shall have Diff Serv QoS configuration on all ports
26	Should support minimum four queues per port in hardware
27	Switch should support high availability features like Stateful switchover and Non-Stop forwarding
28	Should have N+1 /1+1 Redundant Power Supply from day one
29	Should have Hot Swap ability on all modules, Power Supply and Fan Tray
30	Should have Filters/Access-List on all ports
31	Should have 802.1x user authentication and accounting
32	Switch should support VRF-Lite or equivalent
33	Switch should support minimum 128k QoS ACLs and Security ACLs.
34	Should support DHCP snooping to allow administrators to ensure consistent mapping of IP to MAC addresses
35	Switch should support MACsec.
36	Switch should support Application Visibility and Control.
37	Switch should support minimum 512K NetFlow/ jflow/sFlow entries
38	Should have TACACS+/RADIUS enabled.
39	Should have SSHv1 , SSHv2, SNMPv1, SNMPv2, SNMPv3 and NTP support
40	Switch should be IPv6 Certified/ Ready Logo
41	The Switch should be common criteria Certified
42	For smooth, seamless and easy manageability, operation, interoperability and maintenance, the bidder should offer/quote all the switches(Core Switches, Zonal Switches & Access Switches) of the same make (OEM) and must be managed by the same NMS offered/quoted.

3. Zonal Switch-Type2

S.no.	Technical specifications
1	The switch should support minimum 2 Tbps of bandwidth and forward rate of minimum 1.5 Bpps
2	Switch should support Netflow or J-flow or equivalent.
3	Should have hardware based unicast, multicast and broadcast suppression.
4	Should support multi-layer switching, Layer 2 (MAC), Layer 3 (IP address) and Layer 4 (TCP UDP port) switching and application classification and redirection
5	Support for 10/100/1000 BASE-T, 1000 BASE-SX, LX, LH ,GBIC/SFP, 10-Gig SR/LR/ZR, and 40-G
6	Switch should support upto 8 Nos. of 40-Gig non-blocking ports
7	Switch should support upto 72 Nos. of 10-Gig non-blocking ports
8	Should support a mechanism to detect connectivity issues with both fiber and copper cabling to ensures that a partially failed link is shut down on both sides, to avoid L2/L3 protocol convergence issues
9	Should have IEEE compliance for 802.1Q VLAN, 802.1p, 802.1d STP, 802.3ad, 802.1w RSTP, 802.1s MSTP, 802.3ad LACP.
10	Should have 128K MAC addresses
11	Should have minimum 4K active VLAN support
12	Should have basic Routing-Static IP routing, RIP v1/v2 and policy based routing
13	Should have hardware enabled advance IP routing protocols OSPF, OSPFv3, BGPv4, PIM-SSM etc.
14	Should have VRRP or equivalent for redundancy
15	Should have IGMP v1, v2, v3
16	Should support minimum 16k IPv4 and 8K Ipv6 routes.
17	Should support minimum 8k Multicast routes.
18	Support VRF-Lite or equivalent for L3 virtualization
19	Shall have Diff Serv QoS configuration on all ports
20	Should have Redundant Power Supply and fan tray from day one
21	Should have Filters/Access-List on all ports with support for min 4K ACLs
22	Should have 802.1x user authentication and accounting
23	Switch should support VRF-Lite or equivalent
24	Should support DHCP snooping to allow administrators to ensure consistent mapping of IP to MAC addresses
25	Should have TACACS+/RADIUS enabled.
26	Should have SSHv2, SNMPv1, SNMPv2, SNMPv3 and NTP support
27	Should have Management Access Filter (Access Policies)
28	The switch should be IPv6 Certified/ Ready Logo
29	For smooth, seamless and easy manageability, operation, interoperability and maintenance, the bidder should offer/quote all the switches(Core Switches, Zonal Switches & Access Switches) of the same make (OEM) and must be managed by the same NMS offered/quoted.

4(i&ii). Access Switch (PoE & non PoE)

S.no.	Technical Specifications
1	Switch should have 24 X 10/100/1000Base-T auto-sensing ports complying to IEEE 802.3, IEEE 802.3u and 802.3ab standard, supporting half duplex mode, full duplex mode and auto negotiation on each port and 2 x 10G uplinks with SFP+ support.
2	For PoE models, switch should provide adequate power to each port of 24 port (Ethernet, RJ-45) in compliance with IEEE standard.
3	Switch should support stacking with dedicated stacking ports whenever required in future.
4	Switch should support stacking bandwidth of minimum 80 Gbps with dedicated stacking port.
5	The Switch architecture should be able to stack atleast 8 switches together.
6	The Switch stack architecture should be Plug & Play for attaching or removing any switch from the stack without any downtime and should support automatic upgrade when master switch receives a new software version
7	Switch should support link aggregation across multiple switches in a stack.
8	Switch should have non-blocking wire-speed architecture.
9	Switch should have non-blocking switching fabric of minimum 88 Gbps or more and should have Forwarding rate of minimum 65 Mpps..
10	Switch should support power supply redundancy.
11	IEEE 802.1Q VLAN tagging with support for minimum 255 active VLANs and 4k VLAN ids
12	Should support for minimum 16k MAC addresses
13	Should support Spanning Tree Protocol as per IEEE 802.1d, Multiple Spanning-Tree Protocol as per IEEE 802.1s, Rapid Spanning-Tree Protocol as per IEEE 802.1w
14	Switch should support IGMP v1/v2/v3 as well as IGMP v1/v2/v3 snooping.
15	Switch should support classification and scheduling as per IEEE 802.1 P on all ports.
16	Switch should support DiffServ as per RFC 2474/RFC 2475.
17	Switch should support QoS configuration on per switch port basis support four hardware queues per port.
18	Switch should support MAC address based filters / access control lists (ACLs) on all switch ports.
19	Switch should support Port as well as VLAN based Filters / ACLs.
20	Switch should support RADIUS/ TACACS+ for access restriction and authentication.
21	Should support DHCP snooping, DHCP Option 82, Dynamic ARP Inspection (DAI)
22	Switch should have a console port with RS-232/RJ-45 Interface for configuration and diagnostic purposes.
23	Switch should be SNMP manageable with support for SNMP Version 1, 2 and 3.
24	Switch should support TELNET and SSH Version-2 for Command Line Management.
25	Switch should support 4 groups of embedded RMON (history, statistics, alarm and events).
26	Support for Unidirectional Link Detection Protocol (UDLD) to detect unidirectional links caused by incorrect fiber-optic wiring or port faults and disable on fiber-optic interfaces
27	Layer 2 trace route eases troubleshooting by identifying the physical path that a packet takes from source to destination.
28	Should be RoHS Compliant.
29	Should support IEEE 802.1x support.
30	Should support IEEE 802.3x full duplex on 10BASE-T and 100BASE-TX ports.
31	The Switch should be common criteria Certified
32	The switch should be IPv6 Certified/ Logo Ready

5. Network Management System (NMS)

S.no.	Technical Specifications
1	The NMS should support management of Network devices like Routers, switches, wi-fi controllers and other SNMP based devices
2	The NMS should support an open database schema
3	The NMS should support monitoring, configuration and administration of Routers & Switches
4	The NMS should support guided workflows based on best practices with built-in configuration templates
5	The NMS should support the capability to view the network topology
6	The NMS should support Layer 2 Services
7	The NMS should support Fault Management
8	The NMS should support integration with third-party management platform such as NetView, HP OpenView etc
9	The NMS should support Flexible web-based portal framework
10	The NMS should support creation of user-defined views
11	The NMS should support multiple protocols such as https, SSL, SCP, SSH, FTP, TFTP, Telnet and SNMP (v1, v2c and v3).
12	Inventory Management
13	The NMS should automatically discover IP devices on the network
14	The NMS should detect SNMP compliant network devices on the network and manage them.
15	The NMS should support equipment details - chassis, module, interface
16	The NMS should support a single menu for discovery status, device status, user tracking, and inventory dashboards
17	Monitoring and troubleshooting
18	The NMS should support Troubleshooting assistant with guided workflows
19	The NMS should support Embedded troubleshooting workflow for quick problem isolation and remediation
20	The NMS should support centralized fault and event browser (consolidated, syslog, traps, and events and alarms)
21	The NMS should support dashboard to allow for real-time performance and event monitoring
22	The NMS should support features to help validate whether the network is ready for video and rich media applications
23	Configuration management
24	The NMS should support Configuration backup of Routers, Switches & other network devices
25	The NMS should support User roles and privileges
26	The NMS should support change management required to maintain and update network devices
27	The NMS should support configuration of MACsec
28	The NMS should support setting up auto configuration of switch ports
29	The NMS should support configuration of location settings of switch ports to aid the provisioning and tracking of Media endpoints
30	The NMS should support device Profiling to create triggers and dynamically configure the switch ports based on the device classification
31	The NMS should support rule-based device classification engine for Device Profiling
32	The NMS should support Extensible configuration library; new updates and configurations can be added
33	The NMS should support creation of a Baseline template for configuration of devices
34	The NMS should support generation of a non-compliance configuration report

	against the Baseline template
35	Reporting
36	The NMS should support flexible reporting for inventory
37	The NMS should support flexible reporting for user tracking
38	The NMS should support flexible reporting for switch port usage
39	The NMS should support Audit Trail reports
40	The NMS should support compilation of a report on all Audit Trail changes that occurred in the network during a specific time period
41	The NMS should support Change Audit report
42	The NMS should support Syslog report
43	Installation
44	The NMS should support an Unattended install
45	The NMS should support to be installed as a virtual appliance
46	The NMS should support VMware ESX server
47	The NMS should support installation on Windows Server Standard/Enterprise Edition
48	The NMS should support High Availability

6(i). Wireless LAN Controller/Switch(WLC)-Type1

S.no.	Technical specifications
1	WLC must be compliant with IEEE CAPWAP or equivalent for controller-based Wireless LANs(WLANs)
2	WLC should be dedicated appliance with support for upto 500 Access points. Should be a standalone appliance in High Availability mode.
3	Should not require a separate controller for Wireless Intrusion Prevention Access Points
4	Should support multiple redundancy models like 1+1 and N+1.
5	Should have redundant power supplies.
6	Should support an ability to dynamically adjust channel and power settings based on the RF environment.
7	Radio coverage algorithm must allow adjacent WAPs to operate on different channels, in order to maximize available bandwidth and avoid interference
8	Should support interference detection and avoidance.
9	Should support coverage hole detection and correction that can be adjusted on a per WLAN basis.
10	Should support RF Management with 40/80 MHz channels
11	WLC performance should remain the same if encryption is on or off for wireless SSIDs.
12	WLC Should support Rogue AP detection, classification and standard WIPS signatures.
13	Should adhere to the strictest level of security standards, including 802.11i Wi-Fi Protected Access 2 (WPA2), WPA, Wired Equivalent Privacy (WEP), 802.1X with multiple Extensible Authentication Protocol (EAP) types, including Protected EAP (PEAP), EAP with Transport Layer Security (EAP-TLS), EAP with Tunnelled TLS (EAP-TTLS).
14	Should support Access Control Lists (ACLs).
15	Should support built-in web authentication
16	Should be able to set a maximum per-user bandwidth limit on a per-SSID basis.
17	Must support user load balancing across Access Points.
18	Should provide Mesh capability for Mesh supported AP
19	Must be able to dedicate some APs to monitor-only for Intrusion Prevention Services.
20	Must support client roaming across controllers separated by a layer 3 routed boundary.

21	Must support AP over-the-air packet capture for export to a tool such as Wireshark/equivalent
22	Should support the ability to schedule AP power on/off for energy savings.
23	Should be able to classify over 20 different types of interference within 5 to 30 seconds.
24	Should provide a snapshot of air quality in terms of the performance and impact of interference on the wireless network identifying the problem areas.
25	Should provide an Air Quality rating on a per- radio basis to help gauge the impact of interference on the network
26	Should provide real-time charts showing interferers per access point, on a per-radio, per-channel basis.
27	Should support 802.11e WMM
28	Should support multicast Video call admission control mechanism and Stream prioritization.
29	Support for configuring media streams with different priority to identify specific video streams for preferential quality-of-service treatment.
30	To deliver optimal bandwidth usage, reliable multicast must use single session between AP and Wireless Controller.
31	Should support IPv4 & IPv6 from day one.
32	Should support Internet Group Management Protocol (IGMP) snooping and access point should transmits multicast packets only if a client associated to the access point is subscribed to the multicast group.
33	For smooth, seamless and easy manageability, operation, interoperability and maintenance, the bidder should offer/quote WLC & WAPs of the same make (OEM).
34	Controller should support deep packet inspection for all user traffic across Layer 4-7 network to analyses information about applications usage, peak network usage times for all access points from day one in a central and local switching mode.

6(ii). Wireless LAN Controller/Switch(WLC)-Type2

S.no.	Technical Specification
1	WLC must be compliant with IEEE CAPWAP or equivalent for controller-based Wireless LANs(WLANs)
2	WLC should be dedicated appliance with atleast 2 x 10 Gigabit Ethernet interface. The WLC should support upto 1500 Access points in a single appliance. Should be a standalone appliance in High Availability mode.
3	Should not require a separate controller for Wireless Intrusion Prevention Access Points
4	Should support multiple redundancy models like 1+1 and N+1.
5	Should have redundant power supplies.
6	Must support an ability to dynamically adjust channel and power settings based on the RF environment.
7	Radio coverage algorithm must allow adjacent WAPs to operate on different channels, in order to maximize available bandwidth and avoid interference
8	Must support interference detection and avoidance.
9	Must support coverage hole detection and correction that can be adjusted on a per WLAN basis.
10	Must support RF Management with 40/80 MHz channels
11	WLC performance must remain the same if encryption is on or off for wireless SSIDs.
12	WLC Should support Rogue AP detection, classification and standard WIPS signatures.

13	Should adhere to the strictest level of security standards, including 802.11i Wi-Fi Protected Access 2 (WPA2), WPA, Wired Equivalent Privacy (WEP), 802.1X with multiple Extensible Authentication Protocol (EAP) types, including Protected EAP (PEAP), EAP with Transport Layer Security (EAP-TLS), EAP with Tunneled TLS (EAP-TTLS).
14	Must support Access Control Lists (ACLs).
15	Must support built-in web authentication
16	Must be able to set a maximum per-user bandwidth limit on a per-SSID basis.
17	Must support user load balancing across Access Points.
18	WLC must provide Mesh capability for Mesh supported AP
19	Must be able to dedicate some WAPs to monitor-only for Intrusion Prevention Services.
20	Must support client roaming across controllers separated by a layer 3 routed boundary.
21	Must support WAP over-the-air packet capture for export to a tool such as Wireshark/equivalent
22	Should support the ability to schedule WAP power on/off for energy savings.
23	Should be able to classify over 20 different types of interference within 5 to 30 seconds.
24	Should provide a snapshot of air quality in terms of the performance and impact of interference on the wireless network identifying the problem areas.
25	Should provide an Air Quality rating on a per- radio basis to help gauge the impact of interference on the network
26	Should provide real-time charts showing interferers per access point, on a per-radio, per-channel basis.
27	Should support 802.11e WMM
28	Should support multicast Video call admission control mechanism and Stream prioritization.
29	Support for configuring media streams with different priority to identify specific video streams for preferential quality-of-service treatment.
30	To deliver optimal bandwidth usage, reliable multicast must use single session between WAP and Wireless Controller.
31	Should support IPv4 & IPv6 from day one.
32	Should support Internet Group Management Protocol (IGMP) snooping and access point should transmits multicast packets only if a client associated to the access point is subscribed to the multicast group.
33	For smooth, seamless and easy manageability, operation, interoperability and maintenance, the bidder should offer/quote WLANC & WAPs of the same make (OEM).
34	Controller should support deep packet inspection for all user traffic across Layer 4-7 network to analyses information about applications usage, peak network usage times for all access points from day one in a central and local switching mode.

6.(iii) Wireless Access Points (WAP)

S.no.	Technical Specifications
1	Access Points proposed must include radios for both 2.4 GHz and 5 GHz.
2	Access point must have minimum one Ethernet port.
3	Must support minimum 3x3 multiple-input multiple-output (MIMO) with three spatial streams

4	Must support simultaneous 802.11n on the 2.4 GHz and 802.11ac on the 5 GHz radios.
5	Must support data rates upto 1.3Gbps on 5Ghz radio.
6	Must support 40/80 MHz wide channels in 5 GHz.
7	Must support upto 23dbm of transmit power for 5Ghz radios, (limited as per Govt, of India regulation for such WAP)
8	WAP should have the technology to improve downlink performance to all mobile devices including one-, two-, and three spatial stream devices on 802.11n. The technology should use advanced signal processing techniques and multiple transmit paths to optimize the signal received by 802.11 clients in the downlink direction without requiring feedback and should work with all existing 802.11 clients.
9	Should support configuring the access point as network connected sensor to access any network location covered by the access point to get real-time Spectrum analysis data.
10	Must support WAP enforced load-balance between 2.4Ghz and 5Ghz band.
11	Must incorporate radio resource management for power, channel, coverage hole detection and performance optimization
12	Must support Proactive Key Caching and/or other methods for Fast Secure Roaming.
13	Must support Management Frame Protection.
14	Should support locally-significant certificates on the WAPs using a Public Key Infrastructure (PKI).
15	Must operate as a sensor for wireless IPS
16	Must support the ability to serve clients and monitor the RF environment concurrently.
17	WAP proposed must be able to be both a client-serving WAP and a monitor-only WAP for Intrusion Prevention services.
18	Should support mesh capabilities for temporary connectivity in areas with no Ethernet cabling.
19	Mesh support should support QoS for voice over wireless.
20	Must support minimum 16 WLANs per WAP for SSID deployment flexibility.
21	Must support telnet and/or SSH login to WAPs directly for troubleshooting flexibility.
22	Must support Power over Ethernet, local power and power injectors. Should be provided with power adapter.
23	should support 802.11e and WMM
24	WiFi Alliance Certification for WMM and WMM power save
25	Must support Reliable Multicast Video to maintain video quality
26	Must support QoS and Call Admission Control capabilities.
27	Must support IPv4 and IPv6 from day One
28	Should operate & function seamlessly with the above mentioned WLCs

6(iv). Wireless Access Points (WAP)(outdoor)

Same as at 6(iii) above with all other necessary environmental safety & protections. The Outdoor AP should either be ruggedized device or provided with external third party outdoor enclosure and in compliance with the IP67.

7. Firewall

S. No	Technical Specifications
1	Firewall should appliance based 19" Rack Mountable
2	Firewall should also support the standard Layer 3 mode of configuration with Interface IP's. It should be possible to protect the firewall policies from being compromised.
3	Firewall must provide stateful inspection engine support more than 150 protocols including all common protocols of the TCP/IP stack
4	Firewall must provide NAT functionality, including dynamic and static NAT translations
5	Firewall should be able to filter traffic even if the packets are fragmented.
6	It should support the VOIP Applications Security by supporting to filter SIP, H.323 & MGCP flows.
7	It should be able to block Instant Messaging like Yahoo, MSN, ICQ, Skype (SSL and HTTP tunneled)
8	It should enable blocking of Peer-Peer applications, like Kazaa, Gnutella, BitTorrent, IRC (over HTTP)
9	Firewall should support authentication protocols like LDAP, RADIUS and have support for firewall passwords, smart cards, & token-based products like SecurID, LDAP-stored passwords, RADIUS or TACACS+ authentication servers, and X.509 digital certificates.
10	Firewall should support database related filtering and should have support for leading databases such as Oracle, MS-SQL, and Oracle SQL-Net.
11	Firewall should provide Web protections designed specifically for Web-based attacks and compliment the network and application level protections. Each protection can be enabled, disabled, or set in passive/monitor mode.
12	Firewall appliance must be supplied with at least 4 X 10/100/1000Mbps Ethernet ports on Copper and support atleast 2 Gigabit Ethernet ports on Fiber optic.
13	Firewall appliance should support future extensibility with an option to expand with Copper or Fiber interface
14	Firewall appliance should support fiber interfaces LR/LX for 1Gig/10Gig ports
15	Firewall should support VLAN tagging (IEEE 802.1q) supporting up to 250 VLAN.
16	Firewall appliance should allow 1 Million Concurrent connections with 50% scalability in the same chassis
17	Firewall appliance should support 25,000 new connections/second
18	Should support firewall throughput of minimum 1 Gbps
19	Firewall appliance should support Active-Active configuration
20	Should be IPv4 & IPv6 ready from day one

8. Intrusion Prevention System(IPS)

S.no.	Technical specifications
1	IPS should be dedicated appliance based with inspected Throughput should be minimum of 1 Gbps. IPS should provide scalability of atleast 50% of the throughput asked for. The IPS throughput specified should not decrease in case of DDOS scenario.

2	IPS should support sessions with security state of upto 1000000
3	Minimum Connections Per Second Should be 50,000
4	Port Quantity/Type should support combination of copper/SFP providing gigabit connectivity
5	Number of Ports should be minimum 4 X 1Gigabit Ethernet(copper) with the support of 2 more SFP based Gigabit Ethernet ports.
6	Should have dual power supplies
7	Should support active-active or active passive stateful redundancy
8	IPS should have 4000+ attack Filters
9	IPS categories/ signatures should atleast contain: Worm , Phishing , Spyware , Virus , Suspicious , DDoS ,Trojan , Reconnaissance ,Bandwidth Hijacking, P2P,Walk-in Worm , Blended Threat ,VoIP , Backdoor , Zero Day Initiative
10	IPS Management Interfaces should be 10/100/1000 Mbps Ethernet. However, 1 Serial Port, 1 Front Panel LCD are optional requirement.
11	The IPS hardware architecture should be based on FPGA/ASIC switch architecture with parallel processing
12	The IPS appliance should not have any high failure rate components like hard disks
13	The IPS appliance should have both hardware bypass & software bypass
14	It should support active/passive, active/active, Symmetric & Asymmetric HA without any 3rd party load balancers
15	While in HA, all the segments/ports should be available for inline protection & all synchronization should be done over the out of the band management port, not sacrificing the inline ports
16	The IPS vendor should have invested in zero day vulnerability research & actively contributing towards enhancing the IT Security arena
17	It should be possible to define exceptions per signature
18	It should be possible to define policies per time schedule, direction, VLAN ID, CIDR & segment/port
19	It should provide reporting of all security incidence passing through it.
19	IPS should be IPv4 and IPv6 enabled from day one

9(i & ii) Server

S. No.	Feature	Specifications
1	Processor type	2X Intel Xeon Quad Core Processor 2.4 Ghz, 10 MB Cahce, 1066 MHz Front Side Bus or better
2	Systems Bus	1066 MHz Front Side Bus or better
3	Standard Memory	16 GB Standard Memory with support of feature like ECC, Sparebank/mirroring
4	Maximum Memory	320GB (24 DIMM Slots) or better
5	Internal Hard Disk Drive	5 X 500 GB or higher 10K or better RPM HDD Drive

6	Hard Disk Controller	RAID Controller with 256 MB cache (RAID 0/1/5/6)
7	Internal Drive Bays	8 small form factor (SFF) hot plug drive bays to support Serial-attached SCSI (SAS) and Serial ATA (SATA) Drives
8	Optical Drive	IDE DVD ROM/CDRW Combo (Internal / External)
9	Chassis Type	Maximum 2U Rack Mount
10	Chipset	Latest Intel chipset with latest features
11	Fiber Channel HBA	Dual Port Fibre Channel HBA
12	Network Interface Card	Two embedded gigabit Network Adapters with TCP/IP Offload Engine
13	External I/O ports	Serial -1,VGA - 2; (1 front, 1 Back);Network RJ-45 -2; Remote management port - 1; USB Port - 5: (2 Front; 2 rear; 1 Internal)
14	Expansion Slots	I/O 2 X PCI Express or better
15	Power Supply	Redundant & Hot Swappable
16	Compliance Industry Standard	Should be complaint to industry standards like PLUS, Energy star etc.
17	Support	Physical address Extension (PAE) Support; Microsoft Logo Certifications; USB 2.0 Support
19	Compatible Operating Systems	Microsoft Windows Server; Red Hat Enterprise Linux, SUSE Linux Enterprise Server, Vmware Virtualization Software

10. Uninterrupted Power Supply (UPS)

i & ii) UPS 10 & 5KVA

S. No.	Technical specifications	
1	Technology	
	Microprocessor / DSP controlled True On-line using IGBT as switching devices. UPS must be designed for output power factor of 0.9	
2	User Interface	
	LED / LCD display for: UPS on, Line on, Battery operation, Inverter overload	
3	Power Rating	
	10KVA &/or 5KVA	
4	Electrical Input	
	Rated Voltage:	Single Phase 230 VAC
	Voltage Range:	180-280V
	Frequency Range:	46Hz~54Hz
	Power Factor	≥ 0.85
	Efficiency Overall:	$>85\%$
5	Electrical Output	
	Voltage	230VAC , 230 selectable
	Frequency	50Hz +/- 0.2Hz

	Crest Factor	3:1
	Voltage Distributions:	$\leq 3\%$ total harmonic with 100% linear load
	Overload Capacity:	105% for 10 minutes
		125% for 1 minute.
	Overall Efficiency (AC to AC) - Online (Double Conversion)	$> 90\%$ (On Full Load)
6	Protections: a) Input Over / Under Voltage, b) Phase Fail, c) Overload at the Output d) Output AC Over/Under Voltage, e) Battery Short Circuit	
7	Alarm: a) Mains Fail, b) Low Battery, c) Overload	
8	UPS should have option for manual maintenance bypass. Transfer of load to maintenance bypass should be without disruption of the connected load	
9	RS232 Port should be provided as standard in the UPS. Optionally, there should be provision for USB port also in the UPS	
10	It should be a standard feature to perform Remote Emergency Power OFF) / (Remote ON - OFF)	
11	Battery	
	Type: Sealed lead acid battery, maintenance free with steel rack for battery housing.	
	Backup Time: One Hour	
	AMBIENT PARAMETERS	
	Operating Temperature	0 to 40 degree C
	Humidity	20 to 90%
	Audible Noise	Less than 60 db
	Dimension & Weight	Light weight Smaller
	Quality Standard	ISO Certification 9001 & 14001, Safety – CE, Emission – EN-62040, EN-61000

iii) UPS 1KVA

S. No.	Description
1.	Type: Single-phase UPS systems in double-conversion technology compatible batteries, USB/RS232 interface. Power Factor 0.7 Topology Double conversion On-Line Type Rack/Tower
2.	Power Rating :1000 VA
3.	Input : Rated Voltage 230 V (180 – 280 V) Frequency : 50/60 Hz $\pm 5\%$ Power Factor : > 0.9 with linear load
4.	Output: Voltage : 230 V $\pm 1\%$ (220/230/240 V adjustable) Output Frequency : 50Hz $\pm 0.1\%$ Crest Factor Should be 3:1 Power Factor : 0.7 or better
5.	Battery: Sealed maintenance free battery for backup duration of 30 minutes. Battery & UPS to be housed in a cubicle with suitable louvers.

6.	Overload Conditions: Overload Capacity : 105% overload continuous Overload Efficiency : 80% or better
7.	Protection against : Short Circuit, Overloading, Low battery, Input Over/Under voltage, Over Temperature
8.	System Indications: LED Indicators: Status displays with AC Power on, load group, Overload, on battery and general alarm indicators. Audible Alarms: For UPS alarm conditions such as on battery, low Battery, overload, UPS fault.
9.	Certifications:
	Safety IEC/EN 62040-1, Performance IEC/EN 62040-3, EMC IEC/61000-4 or equivalent
10.	Environmental parameters: Operation Temperature 0 - 40 °C Noise Level < 50 dBA Relative Humidity 0 to 90% (Without condensation)
11.	Form Factor: 19" Rack mountable/ Tower Type Necessary mounting kit to be provisioned along with the UPS
12	Quality Standard ISO Certification 9001 & 14001
13	All UPS should be from the same OEM

11. 5.8GHz 200Mbps Aggregate Throughput Point to Point Ethernet Radio

S. No.	Description
1	Frequency Must operate in Unlicensed band 5.8Ghz as India WPC
2	Must support nLOS deployment
3	Modulation 2x2 MIMO-OFDM, BPSK, QPSK, 16QAM, 64QAM
4	System Should support adaptive modulation
5	System should Channel Resolution 5 MHz
6	System should Channel Bandwidth 5/10/20/40 MHz user configurable
7	Tx Power Upto 25dBm
8	System should Channel Accuracy ± 20 PPM
9	System should Duplex Technology TDD
10	System should support Asymmetrical Bandwidth (85% - 95% Uplink/DownLink)
11	Split Configuration Separate Indoor Unit and Outdoor Unit
12	System should support Spectral Efficiency to support throughput as per tender requirements
13	TDD timing of Radios be synchronized to avoid interference between colocated radios at any site
14	Should support synchronization of the transmission timing of different Hub- Sites to the same clock source in order to eliminate mutual interference between multiple sites through GPS

15	System should support Automatic channel selection.
16	System should support Transmit Power Control - within allowable EIRP, Max 25 dBm.
17	System should have Built-in Spectrum Scanner/Spectrum Analyzer Link-oriented Spectrum Analyzer to show the results of both sites
18	System Should have Error Correction Method FEC 1/2,2/3,3/4and 5/6
19	System should support 200 Mbps Aggregate throughput
20	PTP solution support Integrated antenna or External Antenna for link distance up to 15Km
21	System should have LAN Interface 10/100 BaseT interface with Auto negotiation (IEEE802.3)
22	Framing/Coding IEEE802.3/U
23	System should support Ring Protection and support for redundancy without using External switch
24	Link Latency Upto 8ms

12. 5.8GHz Base Station Ethernet Radio 250Mbps Aggregate Throughput (For Point to Multipoint)

1	Frequency Range: 5.8Ghz ISM un licensed free band.
2	The offered radio systems should be of IPv4/IPv6 compliant and should have 128/256 bit encryption.
4	TDD timing of Radios be synchronized to avoid interference between colocated radios at any site
6	Network Interface should support GbE Port to enable transporting more than 100Mbps asymmetric traffic
7	IP Protection: IP 67 or better certified by International Accredited Lab
8	VLAN Support: It should be based on IEEE 802.1Q, 802.1P and QinQ
9	Quality of Service: System should support QoS based on 4 Queue according to 802.1p/Diffserve
10	The offered system should have capabilities of self-backhaul by using offered CPE to act as back haul to base station eliminating additional PtP link for backhaul requirements
11	System should able to deliver upto 250Mbps net aggregate throughput with single sector Base Station Radio.
12	Modulation technology: OFDM – MIMO 2x2 and Diversity
13	It shall be carrier type point to multi point broad band wireless access radio system.
14	Channel Bandwidth: 05/10/20/40 MHz with 5 MHz steps.
15	Max output power (at antenna port) Base station: - Min. 10 dbm to 21 dBm
16	Built in Spectrum analyzer and radio should have site management and link management facility (software) for initial configuration, installation and maintenance

17	Sector Antenna 60/90/120 degree coverage sector antenna which can be either Integrated or External antenna
18	Radio should cover distance of 15 Kms or better
19	Should support SNMPv3 & Telnet.
20	Operating temperature for ODUs:-30 deg to +60 deg. Celsius
21	System should support dual stack IPv4 & IPv6 IP Address
22	Should control CPE for assured bandwidth Management on time slot principle
23	System should support Asymmetrical Bandwidth (85% - 95% Uplink/DownLink)
24	Frequency Range 5.825 to 5.875GHz Base station must have mandatory over the air data encryption AES 128 (CCMP) and FIPS 197 Certified.
25	Latency should be lower than 25ms

13. 5.8GHz Customer Premises Radio 25 Mbps Aggregate Throughput

1	System consisting of outdoor and indoor equipment, antenna, cables, system software and all other hardware and software required for operation, monitoring & configuration of the link.
2	It shall be carrier type point to multi point broad band wireless access radio system.
3	Frequency Range: 5.8GHz ISM un licensed free band
4	Channel Bandwidth: 05/10/20/40 MHz with 5 MHz steps.
5	Radio should support Integrated or External Antenna
6	Radio should cover distance of upto 15 Kms or better
7	Modulation technology: OFDM – MIMO 2 x 2 and Diversity
8	Should be controlled by Base station for assured bandwidth management on Time Slot Principle.
9	Antenna Alignment tool by way of Audible Buzzer
10	Latency should be lower than 25 ms
11	Throughput: Up to 25 Mbps Aggregated

B. Passive Components

1. Should meet ISO 11801 cabling standards and local construction and telecommunication regulations.
2. Should provide a user friendly environment with less technical support and lower maintenance cost.
3. The entire UTP cabling system and components should be tested, approved and certified by internationally recognized third parties such as ETL, CSA, UL etc.(Provide documentary proof in this regard)
4. Should be ETL/UL certified
5. The OFC cable and components should conform to 10Gigabit Ethernet or higher standards.
6. All latest standards including the Following standards are to be complied with
 - a. ISO/IEC 11801:2002
 - b. EIA/TIA 568B
 - c. EIA/TIA 568B.2-1
 - d. EIA/TIA 568B.3
 - e. EIA/TIA 568-C.2

7. The Faceplate Should have shutter to prevent dust and dirt getting into the outlet for single & dual outlets. Must have clear label for identification.
8. The RJ45 type telecommunication outlets should be surface or flush mounted and should support Gigabit Ethernet or higher. Should have integral hinged dust cover if not available on the face plate and suitable wire management unit for cable entry to protect against any loose joints, strain, etc.
9. The Work Area Patch cord and Mounting Cord should have factory fitted snagless boots to maintain the bend radius at both ends. The patch cords should be available in different colors for ease of identification.
10. The 4 pair UTP cable shall be of 23/24 AWG bare solid copper conductors. The cable should have uniform characteristic impedance. Should meet or exceed EIA/TIA 568-B2.1 CAT6 specifications. The cable should be tested for 250-500MHz or higher. The cabling system should be with Gigabit Ethernet Zero bit error rate performance warranty.
11. The components of the wire termination module should be UL or ETL Certified to meet EIA/TIA 568B.2-1 Category 6 Standard. The panel shall be available in 24 ports configurations in one Rack Unit for unshielded installation and shall fit into a 19" size. Rear cable management should only occupy the same area as the panel.
12. The 19" rack mount, high quality enclosure fibre termination unit shall provide cross-connect, interconnect or splicing capabilities. Should accept SC/ST, MTRJ adapters, etc. Should have a fibre management system moulded in to the unit structure to effectively route fibres from an incoming cable through to the connector interface. Should be slide able and should have tamper proof positive locking mechanism by means of clips supplied as standard with each unit.
13. The Singlemode Fibre patch cords shall consist of two single, tight buffered, singlemode graded-index fibres with a 9-micron core and a 125 micron cladding (Singlemode) and factory terminated with SC ceramic connectors at each end.
14. The bidder shall provide a list of their technical support staff, together with their working experience in the relevant field. Should provide the nearest location of their principal's support center. This center shall have permanently stationed support staff that is capable of providing technical support effectively and efficiently.
15. The bidder shall provide a 20 years industry standards compliance warranty, The 20 year product warranty shall cover product manufacturing defects for all passive Structured Cabling System as well as components.
16. All the UTP cables and fibre optic cables must be individually tested by the tenderer after installation of the cables for conformance to the said standards. The UTP nodes should be tested using the pentascanner and the fibre testing should be performed using the OTDR.
17. All equipment and materials supplied shall be new, the best of quality and designed to ensure satisfactory operation under varying atmosphere, climatic, humid tropical conditions without distortion and deterioration in any part affecting efficiency and reliability of the systems. The bidder shall provide manufacturer's literature including manufacturer's data on maintenance and operation of all equipment installed. Relevant catalogues of all materials, instruments, equipment, components, etc. supplied shall be included in this Tender.
18. Each equipment, panel and outgoing cable from the patch panels shall be labeled. Proper labeling and numbering shall also be provided on the outlets. All cable labels are to be of clear wrap around self adhesive type & each cable is to be labeled at each end 100mm from termination point. Labeling to be machine typed.
19. The bidder shall plan the cabling system and routing to ensure system integrity and performance, and that it does not present problems of maintenance, access nor conflict with the operation and maintenance of other systems.
20. All necessary penetrations and access between floors is the responsibility of the bidder, to provide same, and to ensure all penetrations and access holes are fully sealed to local Fire Authority rules.

21. The bidder shall provide adequate support for all cabling that is vertically installed, ensuring that the weight of the cables is sufficiently supported.
22. The bidder shall provide complete and detailed documentation covering the installation and maintenance of the building cabling system. Including "as built" drawings showing all main cable runs, cable trays and catenaries, outlets, consolidation points. Complete with outlet numbering.
23. The bidder should use trenchless digging technique for laying fiber under the roads without affecting the existing utilities.
24. The Bidder may use GI Flexible instead of PVC Flexible and ensure the closure of all points in the network racks subject to proper grounding and safety precautions.
25. Materials such as pipe, bricks, sand, stone-chips, cement, paint etc. required for laying the cables and other fixation work will have to be supplied by the Bidder.
26. All the passive networking components(UTP & Fiber optic cable) should be from same manufacturer and should be preferably from Tyco/Systimax/AMP/Krone/Molex and should be quoted with part numbers alongwith datasheets.
27. All the passive networking components(UTP & Optical Fiber) quoted by the bidder should be from one OEM make to ensure easy integration, compatibility, ease of installation, OEM's warranty and for maintenance purpose.
28. For passive components, the purchase order will be placed based on estimates only. But the payments will be made based on actual quantities installed/consumed.

Financial Bid for Submission of Gross Total Value for items as at Annexure- I

To,

The Registrar & CPO
 ERNET India
 Jeevan Parkash Building, 10th floor,
 KG Marg, CP, New Delhi-110 001

Tender No. _____ Date of Opening

We _____ hereby certify that we are established firm of manufactures/authorized agents of M/s. _____ With factories at _____ which are fitted with modern equipment and where the production methods, quality control and testing of all materials and parts manufactured or used by us are open to inspection by the representative of ERNET India. We hereby confirm that the Prices are quoted in Indian Rupees and indicated both in figures and words. Price in words will prevail, in the event of any mismatch. Grand Total Value (GTV) of Annexure-I is :

Grand Total Value (GTV) (i.e. value of cell marked as 'GTV' of Annexure-IIIB (in US\$ & Rs.)	
(USDollar & Rupees _____) in words	

Note: US\$ prices should be quoted without custom duty

We (bidder) hereby undertake and confirm that:

1. Prices are F.O.R. at End-user site and include Installation, Fixing, Octroi and other such Govt. Levies wherever applicable. Payment will be subject to deduction of TDS and/or WCT.
2. Prices are without Customs Duty.
3. All items are quoted alongwith necessary accessories and softwares.
4. All the equipment and components quoted, have three years comprehensive warranty. The comprehensive warranty includes on- site warranty with parts/spares.
5. The quotation has been submitted for all items strictly as per the specifications and been given compliance in this regard.
6. Price schedule (as per Annexure-IIIB) for item wise detailed break-up is being submitted in a separate sealed cover and will only be opened if above quoted GTV is found to be lowest (L1).
7. All the prices are quoted in the format as above provided by ERNET India failing which the bid will be rejected out rightly. Also any conditional Price Bid will be rejected.
8. There are No deviations in the specifications as asked in the tender.
9. During warranty and AMC services will be provided directly to ERNET India and/or its designated customers at sites.
10. The support services for all the items will be available for 24 Hrs a day, 7 days a week.
11. It is hereby confirmed that we have understood the terms and conditions of the tender and have thoroughly examined specifications and are thoroughly aware of the nature of goods required and our offer is to supply goods strictly in accordance with the requirement and terms and conditions of the tender. We agree to abide by the terms and conditions of the tender if the contract is awarded to us.

12. We hereby offer to supply the goods specified in Annexure-IIIB or such portion thereof as you specify in the purchase order at the price quoted and agree to hold this offer open for acceptance for a period of 180 days from the date of opening of bid.
13. Bid security for an amount equal to Rs. 30,00,000./- is enclosed in the form of Bank Draft/Pay Order/EMD Fixed deposit Bank Guarantee.

Date:

(Signature and seal of Manufacturer/Bidder)

PRICE SCHEDULE FOR THE SUPPLY OF Items as at Annexure-I

To,

The Registrar & CPO
 ERNET India
 Jeevan Parkash Building, 10th floor,
 KG Marg, CP, New Delhi-110 001

Tender No. _____ Date of Opening

We _____ hereby certify that we are established firm of manufactures/authorized agents of M/s. _____ With factories at _____ which are fitted with modern equipment and where the production methods, quality control and testing of all materials and parts manufactured or used by us are open to inspection by the representative of ERNET India. We hereby offer to supply the following items at the prices and within the period indicated below:

S. No.	Item Description as per Annexure-I	Qty	Unit price in US\$/INR (A)	Excise duty (B)	WCT C	Rate of Sales/Service Tax (D)	Amount of Sales Tax (E)	Amount of services Tax (F)	Total unit price in US\$/INR (A+B+C+E+F)	Total Price In US\$/INR(9=3X10)
1	2	3	4	5	6	7	8	9	10	11
1										
2										
3										
.										
.										
Grand Total Value (GTV) in US\$/Rs.										'GTV'

Note: US\$ prices should be quoted without custom duty

We (bidder) hereby undertake and confirm that:

- Prices are F.O.R. at End-user site and include Installation, Fixing, Octroi and other such Govt. Levies wherever applicable. Payment will be subject to deduction of TDS and/or WCT.
- Prices are without Customs Duty.
- All items are quoted alongwith necessary accessories and softwares.
- All the equipment and components quoted, have three years comprehensive warranty. The comprehensive warranty includes on- site warranty with parts/spares.
- The quotation has been submitted for all items strictly as per the specifications and been given compliance in this regard.
- There are No deviations in the specifications as asked in the tender.
- During warranty and AMC services will be provided directly to ERNET India and/or its customers at sites.

8. The support services for all the items will be available for 24 Hrs a day, 7 days a week.
9. All the prices are quoted in the format as above provided by ERNET India failing which the bid will be rejected out rightly. Also any conditional Price Bid will be rejected.
10. It is hereby confirmed that we have understood the terms and conditions of the tender and have thoroughly examined specifications and are thoroughly aware of the nature of goods required and our offer is to supply goods strictly in accordance with the requirement and terms and conditions of the tender. We agree to abide by the terms and conditions of the tender if the contract is awarded to us.
11. We hereby offer to supply the goods detailed above or such portion thereof as you specify in the purchase order at the price quoted and agree to hold this offer open for acceptance for a period of 180 days from the date of opening of bid.
12. Bid security for an amount equal to Rs. 30,00,000.- is enclosed in the form of Bank Draft/Pay Order/ Bank Guarantee.

(Signature and seal of Manufacturer/Bidder)

Dated _____ 2015

MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

(To be stamped in accordance with stamp Act)

(The non-judicial stamp paper should be in the name of issuing Bank)

B.G. NO. _____
Date of issue _____
Amount (Rs.) _____
Valid upto _____
Claim Amount upto _____

To,

ERNET India
Jeevan Parkash Building, 10th floor,
KG Marg, CP, New Delhi-110 001

Dear Sirs,

In consideration of the ERNET India, Department of Electronics & Information Technology Ministry of Communications & Information Technology (hereinafter referred as the '**Owner**', which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having _____ awarded _____ to M/s. _____ (name, constitution and address) (herein referred to as the '**Contractor**', which expression shall unless repugnant to the context of meaning thereof, include its successors, administrator, executors and assigns) a Purchase Order No. _____ dated _____ valued at _____ (hereinafter referred to as Contract) and the Contractor having agreed to provide a Bank Guranatee towards Performance of the entire Contract equivalent to Rs. _____ (amount of BG) (i.e. _____ per cent of the said value of the Contract) to the Owner.

We _____ (name of the Bank) having its Registered Office at _____ and Corporate/Head Office at _____ (hereinafter referred to as the '**Bank**', which expression shall, unless repugnant to the context or meaning thereof, include the successors, administrators, executors and assigns) do hereby guarantee and undertake to pay at any time up to _____ (day/month/year including claim period) an amount not exceeding Rs. _____, within ten (10) calendar days from the date of receipt by us on first written demand by Owner; through hand delivery or registered A.D. Post or by speed post or by courier, stating that "Contractor" has failed to perform its obligations under the Contract. Aforesaid payment will be made without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the owner the Bank shall be conclusive and binding notwithstanding any difference between the Owner and Contractor or any dispute pending before any court, tribunal or any authority.

The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Owner and further agrees that the guarantee herein contained shall continue to be enforceable till the Owner discharges this guarantee. The owner shall have the fullest liberty, without affecting in any way the liability of the Bank under this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forebear to enforce any covenants, contained or implied, in the Contract between the Owner and the Contractor or any other course of or remedy or security available to the Owner. The Bank shall not be relieved of its obligations under these presents by any exercise by the owner or by any other matters or thing whatsoever which under law would, but for this provision, have the affect of relieving the Bank. The Bank also agrees that the Owner at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and

notwithstanding any security or other guarantee that the Owner may have in relation to the Contractors liabilities.

This Guarantee can be invoked in one or more trenches and in such a case Owner will not be required to submit the original Guarantee along with submission of claim.

Notwithstanding anything mentioned herein above our liability under this guarantee is restricted to Rs._____ and it shall remain in force up to and including _____ shall be extended from time to time for such period as may be desired by the Contractor on whose behalf this guarantee has been issued.

WITNESS

BANK

Signature_____

Signature_____

Name_____

Name_____
(Bank's Rubber Stamp)

Seal, name & address of the Bank and address of the Branch

Designation with Bank Stamp

Attorney as per Power of Attorney No._____

Date: _____

Place :

MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

(To be stamped in accordance with stamp Act)

(The non-judicial stamp paper should be in the name of issuing Bank)

B.G. NO. _____
Date of issue _____
Amount (Rs.) _____
Valid upto _____
Claim Amount upto _____

To,

ERNET India
Jeevan Parkash Building, 10th floor,
KG Marg, CP, New Delhi-110 001

In consideration of the ERNET India, Department of Electronics & Information Technology Ministry of Communications & Information Technology (hereinafter referred as the '**Owner**', which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having issued a tender no. _____ dated _____ and M/s. _____ (name, constitution and address) (herein referred to as the **Bidder**, which expression shall unless repugnant to the context of meaning thereof, include its successors, administrator, executors and assigns) having made a Bid for the above-mentioned tender and the **Bidder** have agreed to give Earnest Money Deposit of Rs. _____ to abide with the below mentioned condition of the tender :

- (1) If the **Bidder** withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of bid.
- (2) If the **Bidder** having been notified of the acceptance of his bid by the Owner during the period of its validity:-
 - a) If the **Bidder** fails to furnish the Performance Security for the due performance of the contract.
 - b) Fails or refuses to accept/execute the contract.

We _____ (name of the Bank) having our Registered Office at _____ and Corporate/Head Office at _____ (hereinafter referred to as the '**Bank**', which expression shall, unless repugnant to the context or meaning thereof, include the successors, administrators, executors and assigns) do hereby guarantee and undertake to pay at any time up to _____ (day/month/year including claim period) an amount of Rs. _____; to the Owner, within ten (10) calendar days from the date of receipt by us of your first written demand through hand delivery or registered A.D. Post or by speed post or by courier, stating that "Bidder" has failed to perform its obligations under the Tender. Aforesaid Payment will be made without any demur, reservation, contest, recourse or protest and/or without any reference to the **Bidder**. Any such demand made by the Owner to the Bank shall be conclusive and binding notwithstanding any difference between the Owner and Bidder or any dispute pending before any court, tribunal or any authority.

The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Owner and further agrees that the guarantee herein contained shall continue to be enforceable till the Owner discharges this guarantee. The owner shall have the fullest liberty, without affecting in any way the liability of the Bank under this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the **Bidder**, and to exercise the same at any time in any manner, and

either to enforce or to forebear to enforce any covenants, contained or implied, in the Tender between the Owner and the **Bidder** or any other course of or remedy or security available to the Owner. The Bank shall not be relieved of its obligations under these presents by any exercise by the owner or by any other matters or thing whatsoever which under law would, but for this provision, have the affect of relieving the Bank. The Bank also agrees that the Owner at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the **Bidder** and notwithstanding any security or other guarantee that the Owner may have in relation to the **Bidder's** liabilities.

Notwithstanding anything mentioned herein above our liability under this guarantee is restricted to Rs._____ and it shall remain in force up to and including _____ shall be extended from time to time for such period as may be desired by the **Bidder** on whose behalf this guarantee has been issued.

WITNESS

BANK

Signature_____

Signature_____

Name_____

Name _____
(Bank's Rubber Stamp)

Seal, name & address of the Bank and address of the Branch

Designation with Bank Stamp

Attorney as per Power of Attorney No._____

Date: _____

Place :

Preferential Market Access(PMA) AFFIDAVIT

Format for affidavit of self certification regarding domestic value addition in an electronic product, to be provided on Rs. 100/- stamp paper

Date:

I S/o, D/o, W/o

, resident of

do hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the policy of Government of India issued via notification no. 8(78)/2010-IPHW dated 10-02-2012, and the subsequent revision to the policy issued via notification no. 33(3)/2013-IPHW dated 23-12-2013.

That the information furnished hereinafter is correct to the best of my knowledge and belief and I undertake to produce relevant records before the procuring authority or any authority so nominated by the Department of Electronics and Information Technology, Government of India, for the purpose of assessing the Domestic Value Addition.

That the domestic value addition for all inputs which constitute the said electronic product has been verified by me and I am responsible for the correctness of the claims made therein. That in the event of the domestic value addition of the product mentioned herein is found to be incorrect and not meeting the prescribed value addition norms, based on the assessment of an authority so nominated by the Department of Electronics Information Technology, Government of India for the purpose of assessing the domestic value addition, I will be disqualified from any Government tender for a period of 36 months. In addition, I will bear all costs of such an assessment.

That I have complied with all conditions referred to in the notification no., wherein preference to domestically manufactured electronic products in government procurement is provided and that the procuring authority is hereby authorized to forfeit and adjust my EMD and other security amount towards such assessment cost and I undertake to pay the balance, if any, forthwith.

I agree to maintain the following information in the company's record for a period of 8 years and shall make this available for verification to any statutory authorities:

- i. Name and details of the domestic manufacturer (Registered office, manufacturing unit location, nature of legal entity)
- ii. Date on which this certificate is issued
- iii. Electronic product for which the certificate has been produced
- iv. Procuring agency to whom the certificate is furnished
- v. Percentage of domestic value addition claimed
- vi. Name and contact details of the unit of the manufacturer
- vii. Sale price of the product
- viii. Ex-factory price of the product
- ix. Freight, insurance and handling
- x. Total bill of material
- xi. List and total cost value of inputs used for manufacture of the electronic product.
- xii. List and total cost of inputs which are domestically sourced. Please attach certificate from suppliers if the input is not in-house.
- xiii. List and cost of inputs which are imported, directly or indirectly.

For and on behalf of (Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Directors)

<Insert Name, Designation and Contact No.>

ERNET India hereinafter referred to as "ERNET"

And

-----[bidder (s) participating in this tender] hereinafter referred to as "The Bidder/Contractor"

Preamble

ERNET India intends to enter into rate contract through empanelment of reputed manufacturers/authorized suppliers for supply, installation, commissioning & integration of goods/equipment/services for Wi-Fi enabled Campus Network and related systems, accessories, services, etc. at ERNET locations/user sites to be specified by ERNET India and providing comprehensive maintenance of the equipment during the free warranty period of three years from the date of installation at site and two years AMC services after warranty. ERNET values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its Bidder(s) and /or Contractor(s).

In order to achieve these goals, ERNET will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for Compliance with the principles mentioned above.

Section 1- Commitments of ERNET

1. ERNET commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

- a. No employee of ERNET, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- b. ERNET will during the tender process treat all Bidder(s) with equity and reason. ERNET will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder (s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the process or the contract execution.
- c. ERNET will exclude from the process all known prejudiced persons.

2. If ERNET obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, ERNET will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2- Commitments of the Bidder(s) / Contractor(s)

1. The Bidder(s) / Contractor(s) commit himself to take all measures necessary to prevent corruption. The bidder commits himself to observe the following principles during his participation in the tender process and during the contract execution:

- a. The Bidder(s) / contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of ERNET's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage or during the execution of the contract.
- b. The Bidder(s) / Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c. The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s) / Contractors will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by ERNET as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the bidder(s)/contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s) / Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" as annexed and marked as Annexure.
- e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- f.

2. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3: Disqualification from tender process and exclusion from future contracts

- If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, ERNET is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the Government/ERNET India's procedure on banning of the business dealings/bidders/contractors, etc.

Section 4: Compensation for Damages

- a. If ERNET has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, ERNET is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security
- b. If ERNET has terminated the contract according to Section 3, or if ERNET is entitled to terminated the contract according to Section 3, ERNET shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value and/or the amount equivalent to Performance Bank Guarantee.

Section 5: Previous Transgression

- a. The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti corruption approach or with any other public sector enterprise in India that could justify his exclusion from the tender process.
- b. If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process for action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

Section 6: Equal treatment of all Bidders/Contractors/Subcontractors

- a. The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to ERNET before contract signing.
- b. ERNET will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
- c. ERNET will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7: Criminal charges against violation Bidder(s)/ Contractor(s)/Sub contractor(s)

If ERNET obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if ERNET has substantive suspicion in this regard, ERNET will inform the same to the Chief Vigilance Officer.

Section 8: Independent External Monitor/Monitors

1. ERNET appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Director General, ERNET.

3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of ERNET including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.
4. ERNET will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between ERNET and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of ERNET and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
6. The Monitor will submit a written report to the Director General, ERNET within 8 to 10 weeks from the date of reference or intimation to him by ERNET and, should the occasion arise, submit proposals for correcting problematic situations.
7. Monitor shall be entitle to compensation on the same terms as being extended to / provided to Director level in the ERNET India or as decided by Director General of ERNET India.
8. If the Monitor has reported to the Director General ERNET, a substantiated suspicion of an offence under relevant IPC/PC Act, and the Director General ERNET has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
9. The word 'Monitor' would include both singular and plural

Section 9 - Pact Duration

1. This pact begins when both parties have legally signed it. It expires for the Contractor 10 months after the last payment under the contract or after 10 months from the expiry of Rate Contract (RC) which ever be later and for all other Bidders 12 months from the contract has been awarded.
2. If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Director General of ERNET.

Section 10 - Other provisions

1. This agreement is subject to Indian Law, Place of performance and jurisdiction is the Registered Office of ERNET, i.e. New Delhi.

- 2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 3. If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & on behalf of ERNET)
(Office Seal)

(For & on behalf of Bidder/Contractor)
(Office Seal)

Place-----

Date-----

Witness 1: (Name & Address) _____

Witness 2: (Name & Address) _____

