

TENDER DOCUMENT

Rate Contract for the Operations of VSAT Network, AMC of Hub, AMC of VSATs and Procurement of New VSATs

Tender No: EI-D/OPS/17-28/13

Date: 11.9.2013

- Pre Bid : 23.09.2013 at 11:00AM
- Last Date for submission of queries, if any : 26.09.2013 (3:00PM)
- ERNET's response on queries, if any : 04.10.2013
- Due Date of Bid Submission : 15.10.2013 (3:00PM)
- Date of Opening of Bids : 15.10.2013 (3:30PM)

Tender Fee : Rs. 2,000/- (Rupees Two Thousands)
EMD Amount : Rs. 5,00,000/- (Rupees Five Lakhs)

By

ERNET India
Department of Electronics and Information Technology
Ministry of Communications & Information Technology
Government of India
10th Floor, Jeevan Prakash Building, 25, K.G. Marg
New Delhi -110 001

TABLE OF CONTENTS

SECTION	CONTENTS	PAGE NO
A	About ERNET India and its Network	03
B	Instructions to Bidder	04-15
C	Tender Requirements and General Terms & Conditions	16-21
D	Scope of the Tender	22-23
E	Qualifying Criteria for Responsiveness of Tender	24-25
F	Technical Requirements	26-33
	Annexure	
I	Details of existing items at VSAT Hub, Bangalore and at remote VSAT sites	34-38
II	Time schedule	39-40
III	Price Schedule/Schedule of Requirements	41-47
IV	Format of Performance Bank Guarantee	48-49
V	Manufacturer's Authorization Form	50
VI	Bidder's Profile	51-52
VII	Service Level Agreement	53-54
VIII	Format of "Installation and Commissioning Report of VSAT"	55
IX	Location of existing VSAT sites/users of ERNET India	56

SECTION – A

ABOUT ERNET INDIA AND ITS NETWORK

ERNET India, an autonomous society under Department of Electronics and Information Technology, Ministry of Communications and Information Technology, Government of India is a nodal network providing Internet and Intranet connectivity and other value added services to academic and research institutions in the country. It has set up a backbone connecting all metro cities in the country.

ERNET has star VSAT network operating on **normal C-band of INSAT series satellite**. The Hub is located at Bangalore and VSATs at various educations, research, Government, etc institutions / organizations spread all over the country. It has DVB-S/MFTDMA and SCPC DAMA based baseband to provide VSAT connectivity for Internet / Intranet related applications. The DVB-S/MFTDMA network is based on SkyEdge IP technology of M/s Gilat Satellite Networks and SCPC DAMA network is based on Skylinx 8000 of M/s ViaSat.

The emphasis of ERNET is to widen its network and to provide Internet/Intranet access, ICT infrastructure to all education, research, Government, etc institutions of the country.

In order to expand, operate and maintain ERNET VSAT network, proposal for operations, maintenance of existing VSAT network and supply of new VSATs and related items is being requested to meet the requirement of our users.

SECTION – B

INSTRUCTIONS TO BIDDER

1. Tender Form

- 1.1 Tender (Bid) Form consists of various sections and the Bidder shall go through all the sections of the Tender document and must comply with each section.

2. Compliance

- 2.1 Compliance statement in the form of '**Complied**' or '**Not Complied**' shall be given against each statement and specification of Tender Form - The compliance statements should be supported by **authentic documentation**.
- 2.2 Please note that any deviation from laid down requirement/specification shall be brought out separately in deviation sheets to be attached by the Bidder.
- 2.3 The Bidder shall offer his comments about all the requirements indicated in the specifications. The Bidder shall clearly mention about the non-availability of the required options in the offer, if any.
- 2.4 Each page of the Bid and cuttings/corrections shall be duly signed and stamped by the Bidder. Failure to comply with this requirement may result in the Tender being invalidated.

3. Sale of Tender

- 3.1 Tender documents can be purchased from ERNET India, New Delhi during **12.09.2013 to 14.10.2013** between the hours of 3.00 PM and 4.00 PM every day except for Saturdays, Sundays and Public Holidays, on payment of **Rs. 2,000.00 (Rupees Two Thousands only)** in the form of Demand Draft or Banker's Cheque drawn on / issued by any Nationalized / Scheduled Indian Bank in favour of ERNET India, payable at New Delhi.

The Tender Document can also be downloaded from www.eis.ernet.in or <http://eprocure.gov.in/cppp/> during the period **12.09.2013 to 14.10.2013**. In such case, an amount of **Rs. 2,000/-** in the form of Demand Draft/Bankers' cheque drawn in favour of **“ERNET India, New Delhi”** would be required to be furnished along with the bid.

- 3.2 Tenders/Bids placed in sealed envelopes should bear the following inscription:-

“Bid for the operations, maintenance, supply of VSATs and related equipments for ERNET VSAT Network”

“Tender Enquiry No.: EI-D/OPS/17-28/13

“Pre Bid Meeting: **23.09.2013 at 11:00AM**

“Due Date & Time: **15.10.2013 at 3:00PM.**”

“Due Date & Time for Opening of Bids: **15.10.2013 at 3:30 P.M.**

- 3.3 Tenders/Bids placed in sealed envelopes/covers bearing the information as stated in para 3.2 should be received in ERNET India up to **1500 hrs on 15.10.2013** to the following:

Sh. Avanindra Singh
Senior Manager
ERNET India
10th Floor, Jeewan Prakash Building, 25, K.G. Marg
New Delhi –110 001

4. Validity of the Tender

- 4.1 The Tender shall be valid for a minimum period of 180 days from the closing date indicated in para 3.2 above. The Bidder shall not be entitled during the said period of 180 days, without the consent in writing of ERNET to revoke or cancel the offer or to vary any term thereof. In case of the Bidder revoking or canceling the offer or varying any term in regard thereof, the Bidder's Earnest money deposit shall be forfeited by ERNET.

5. Addressing, clarifications/ Amendment in the Tender Document

- 5.1 Any inquiries regarding clarification/interpretation/queries/contents in connection with this Tender should be sent **in writing only by hand** to Sh. Avanindra Singh, Senior Manager, ERNET India at the address given at **para 3.3 latest by date 26.09.2013 by 3:00 PM**. **Any queries received after this date / time will not be entertained. The prospective Bidders must take acknowledgement of all inquiries/queries given to Sh. Avanindra Singh, Senior Manager. Queries received through fax, e-mail, courier, registered post etc shall not be entertained.**
- 5.2 Queries/clarification sought by the vendors (which will be received within time frame as stated in para 5.1) along with ERNET response will be posted on ERNET website www.eis.ernet.in and CPP Portal on **04.10.2013**. Accordingly, all the vendors must refer ERNET website or CPP Portal for the clarification, if any, before submission of their bids on the due date/time.
- 5.3 The Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by prospective Bidder, modify the Tender Document by an amendment. The same will be posted on ERNET India's website.

6. Language

The Bidder shall quote the rates in English language and international numerals. The rate shall be in whole numbers. These rates shall be entered in figures as well as in words. In the event of the order being awarded, the language of all services, manuals, instructions, technical documentation etc. provided for under this contract, will be English.

7. Correction in Bid

All changes, alterations, corrections in the bid shall be signed in full by the person(s) signing the bid with date. No erasure and/or over writing is/are permissible.

8. Contents of Tender

8.1 The Tender will be in **two** parts:

(i) **Part-I (Technical Bid)**

(ii) **Part-II (Financial Bid)**

8.2 Part-I - Technical Bid in one cover covering:

8.2.1 The Compliance Statements completed in all respects as given in para 2 above.

8.2.2 Earnest Money Deposit (EMD) - please refer para 15.

8.2.3 Tender Fee – please refer para 3.1.

8.2.4 Power of Attorney/Authorization with a seal of the company, of person signing the bid documents.

8.2.5 Detailed information on the Bidders experience in operation, maintenance, establishment, testing and commissioning of VSAT networks. All documents as per the eligibility/qualifying criteria (**Section E**) must be enclosed. All the information as per **Annexure-VI** must be provided. Bidders not qualifying to the eligibility criteria will be disqualified.

8.2.6 List of all clearances, approvals, licences etc to operate and maintain the existing VSAT Network of ERNET & to establish and operate the supplied VSAT equipments for full functioning of VSAT network. The coordination with related Government agencies to arrange these clearances, approvals, licences etc shall be done by Bidder. Charges, if any, should be separately indicated in Pricing Schedule. However, ERNET will provide all necessary documents (and coordination) required to get these clearances and would pay/reimburse all charges/fee payable to Government Agency to obtain approvals / licences etc on submission of its documentary proof on actual.

8.2.7 Complete Bill of Material (un-priced) for the operation, maintenance, and supply of VSAT Network equipments / services as per Bill of Material and tender should be quoted in all respect.

8.2.8 Bidder's company profile, financial status and last three years balance sheets, as applicable.

8.3 Part-II (Financial Bid) will contain:

8.3.1 The Financial Bid including the prices of all the line items as spelt out in **para 12 of Section C** should be submitted in separate sealed envelope marked "**Financial Bid - Part II**" in the format as at **Annexure-III**.

- 8.3.2 Quotes of all imported items should be in US\$. The quotes of all indigenous items should be in Indian Rupees. All statutory levies like Excise Duty, Sales tax, Service tax, VAT, Octroi, Entry Tax etc and Freight and Insurance charges to our destinations should be indicated separately. The Bidder shall add to the formats, if required, so as to give any additional information to make the bidding complete. The name of the freight forwarder may be indicated in the bid. **The conversion rate of foreign currency into India rupees will be taken on the date on which part II, financial bid will get opened for the purpose of commercial comparison.**
- 8.3.3 The pricing schedule indicating cost of the all the equipment and services as per Bill of Material and tender requirement must be quoted in all respect. The bidder should ensure the Service Level agreement (SLA) placed at **Annexure-VII**. The list of all deliverables shall be fully reflected in the price bid completed in all respect. In case of any missing information, the bid is likely to be rejected.
- 8.3.4 Bids once submitted shall be final and no amendment shall be permitted. A Bidder shall submit only one bid.
- 8.3.5 **Financial comparison of bids will be made considering full custom duty component.**

9. Transfer of Tender Document

- 9.1 Transfer of Tender Documents by one Bidder to another is not permissible. Similarly transfer of Bids submitted by one Bidder, is not permissible.

10. Procedures for Opening of Tender Documents

- 10.1 Part I containing technical part of the offer will be opened at **1530 hours on 15.10.2013** at the office of ERNET India, 10th Floor, Jeewan Prakash Building, 25, K.G. Marg, New Delhi -110 001 in the presence of those Bidders or their authorized representatives who present themselves at the time of opening of the Bids to the Tender and who wish to attend.
- 10.2 Part-I of the Tenders, accompanied with requisite **Tender fee** and **Earnest money**, shall be scrutinized and processed by the ERNET to ensure whether the same are in confirmatory with the tender requirements. Subsequent queries of ERNET, if any, on the technical details, clarifications or any other information should be replied positively within the time specified, failing which Tenders shall be finalized on the basis of the information, available. It shall, therefore, be in the Bidders' interest to give complete and comprehensive technical particulars/description and details.
- 10.3 The Bidder has to quote for the all the items as required in the tender and no deviation in the required technical items will be accepted.
- 10.4 In case it becomes necessary for the Bidder to make changes in their original price as listed in Part II of the Tender on account of subsequent technical clarification, deviations, etc. against the queries raised by ERNET to bring the equipment in line with the requirement of the specification, such price adjustment/revision should be sent in a separate sealed cover duly superscripted as:

"PRICE ADJUSTMENT TO PART II PRICE AGAINST TENDER NO.....AND REVELANT TO THE TECHNICAL PARITUCLARS AS CONTAINED IN THE LETTER NO.....DATED....."

- 10.5 The envelope containing price adjustment data will be kept duly sealed along with the original Part II of the offer. After all the Tenders have been technically examined, Part II containing prices along with subsequent price adjustment, if any, of the technically acceptable Tenders shall be opened for which the date and time shall be intimated to the qualifying Bidders through any means i.e. Phone/FAX/letter/telegram/e-mail, etc.
- 10.6 No correspondence shall be entertained from the Bidders after the opening of Part II - Financial Part of the Tender.

11. Modification and Withdrawal of Bids

- 11.1 The Bidder may modify or withdraw its bid after the bids submission, provided that written notice of the modification or withdrawal is received by the Tenderer prior to the last date prescribed for receipt of bids.
- 11.2 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with provisions of the tender. A withdrawal notice may also be sent by fax or cable but followed by a signed confirmation copy, post marked not later than the last date for receipt of bids.
- 11.3 No bid shall be modified subsequent to the last date for receipt of bids.
- 11.4 No bid shall be withdrawn in the interval between the last date for receipt of bids and the expiry of the bid validity period specified by the Bidder in the Bid. **Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid EMD.**

12. Comparison and Evaluation of Bids

- 12.1 The Bids received and accepted will be evaluated by ERNET to ascertain the best and lowest evaluated Bids in the interest of Project for the complete scope of the basic proposal.
- 12.2 In the evaluation of Bids, the overall efficiency and economy of the system offered will be kept in view.
- 12.3 The Bids found technically acceptable and meeting all qualifying criteria for responsiveness of tender shall be compared on the basis of price quoted by the Bidders as per the bill of material. The Bidder should quote the price of all the line items required. The bill of material required is at **Annexure-III** and the Bids shall be commercially evaluated based on this bill of material.

13. Rejection & Return of Tender

- 13.1 ERNET India (hereinafter abbreviated as ERNET, in this tender) reserves the right to reject any or part of Tender without assigning any reason at any time. The documentation submitted by Bidders shall not be returned unless the Bidder explicitly

states this request at the time of submission of their Bids. ERNET also reserves the right at its sole discretion, not to award any order under the Tender called. ERNET shall not pay any costs incurred in the preparation and submission of any Bid.

- 13.2 If the Bidder gives wrong information in the Bid, ERNET reserves the right to reject such Bids at any stage or to cancel the Contract, if awarded, and forfeit the Earnest Money or BGs.
- 13.3 Canvassing in any form in connection with the Tender is strictly prohibited and the Bids submitted by the Contractors who resort to canvassing are liable for rejection.
- 13.4 Should a Bidder have a relation or relations employed in the capacity of an officer of ERNET, the authorizing authority inviting Tender shall be informed of the fact along with the offer, failing which ERNET, at its sole discretion, may reject the Bid or cancel the contract and forfeit the Earnest Money.
- 13.5 Bids from agents without proper authentication from the manufacturers shall be treated as non-responsive.

14. Right to Accept or Reject the Bids

- 14.1 The right to accept the Bids in full or in part/parts, will rest with ERNET. However, ERNET does not bind itself to accept the lowest bid and reserve itself the authority to reject any or all the bids received without assigning any reason whatsoever.
- 14.2 Bids, in which any of the particulars and prescribed information are missing or are incomplete, in any respect and/or prescribed conditions are not fulfilled, shall be considered non responsive and are liable to be rejected.
- 14.3 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of the errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.
- 14.4 A bid determined as not substantially responsive will be rejected by the Tenderer and may not subsequently be made responsive by the Bidder by correction of the non-conformity.
- 14.5 The Tenderer may waive any minor informality or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

15. Earnest Money

- 15.1 The Earnest Money Deposit (EMD) amount of **Rupees 5,00,000 (Rupees Five Lakhs)**, shall accompany the tender. The EMD shall be furnished in the form of an irrevocable unconditional Bank Guarantee (or DD or Pay order) issued by any Nationalized/Scheduled Indian Bank in favour of ERNET India, New Delhi. The Bank

Guarantee shall be valid for 180 days from the original date of opening of Part-I of the Tender Document.

- 15.2 The EMD of all unsuccessful Bidders will be returned only after the contract has been awarded to the successful Bidder (whose EMD will be retained).
- 15.3 The EMD of the successful Bidder will be returned after the Bidder provides the performance guarantee, as required in **para 16** of this Section.
- 15.4 If the successful Bidder fails to submit the performance guarantee and fails to enter into a contract with ERNET within 15 calendar days after the date of issue of notice of acceptance of bid, the EMD amount shall be forfeited and Bank Guarantee en-cashed.
- 15.5 Any Bid not accompanied with EMD will be considered non-responsive and rejected. The public sector companies will also have to deposit EMD as per **para 15.1 above**.
- 15.6 No interest or any other expenses, whatsoever in regard to Bank Guarantee will be payable by ERNET on the EMD in any manner.

16. Performance Guarantee

- 16.1 The Bidder, whose Bid is accepted, shall submit the following Performance Guarantee:

The Bidder will submit Performance Bank Guarantee of 10% (Ten Percent) of the price of the items, services, etc mentioned in purchase order, valid for one year to ERNET India.

In case of imported items, Purchase Order will be placed by ERNET India on the Bidder & OEM. In this case, the Letter of Credit (s) shall be opened by ERNET India through our Banker. The Bidder shall be required to submit the Performance Bank Guarantee of the equivalent amount of the LC value (s) at the time of submission of PI to ERNET India valid for a minimum period of 6 months (extendable till the acceptance of the entire project).

- 16.2 The performance guarantee shall be **deemed to govern the following guarantees** from the successful Bidder, in addition to the other provisions of the guarantee:
 - 16.2.1 The successful and satisfactory supply of items, services, etc on turnkey basis in accordance with all tender terms and conditions during the period mentioned in the Purchase Order and/ or letters issued by ERNET.
 - 16.2.2 Performance Guarantee shall cover the entire obligations of the Bidder in regard to this tender.
 - 16.2.3 In case of any problem, the successful Bidder will depute his supervisor(s)/engineers to the site to resolve the problem as per the SLA and will remove all defects at Bidder's cost.

- 16.2.4 In case of any void of above conditions, the performance guarantee is liable to be encashed without assigning any reason to the Bidder. For encashment of BG, consent of the Bidder shall not be taken.
- 16.2.5 The performance guarantee will be returned to the successful Bidder at the end of the period of liability without interest.
- 16.3 All Performance Guarantee shall be in the form of an irrevocable and unconditional bank guarantee on a Nationalized/Scheduled Indian bank in Indian rupees, as per **Proforma attached at Annexure-IV.**

17. Award of Contract

- 17.1 The Tenderer will award the Contract to the successful Bidder whose bid has been determined to be substantially responsive, overall efficient and economical and has been determined, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily. The Tenderer shall however not bind itself to accept the lowest or any bid and reserves the right to accept any bid, wholly or in part.
- 17.2 The acceptance of the Tender will be intimated to successful Bidder by ERNET either by the e-mail/fax or by letter of like means.
- 17.3 ERNET shall be the sole judge in the matter of award of contract and the decision of ERNET shall be final and binding.
- 17.4 The work under the contract includes (i) Maintenance of Hub side equipments, (ii) Maintenance of remote VSATs, (iii) Operation of the Network, (iv) Supply of VSATs (which includes supply of VSAT equipments up to the remote site, their installation, commissioning, integration with the existing ERNET SkyEdge VSAT network to access Internet, Intranet and related applications with its full functioning, etc). The Tenderer has the right to purchase any item, either in part or in full, during the contract period. The Tenderer has also the right to drop any items/services from the purchase order.
- 17.5 The Bidder shall complete the awarded work on turnkey basis.

18. Tenderer's Right to purchase and vary quantities at the time of Award or purchase

- 18.1 This is the rate contract valid for the period as per tender. The Tenderer reserves the right at the time of award of Contract to increase or decrease the quantity of goods and services specified in the Schedule of Requirements without any change in price and other terms and conditions of the tender. The purchase has the right to purchase any items, services, etc as mentioned in the tender (in part or full) during the validity period of the contract on the terms and conditions of the tender and Bidder is forced to supply these items, services, etc to the Tenderer at the cost quoted in their bid.
- 18.2 The Bidder has to execute the awarded contract (Purchase Orders) on turnkey basis meeting tender conditions.

19. Standard Conditions

19.1 All prices should be quoted as final. No commercial negotiations shall be held after opening of commercial offer.

20. Address for Correspondence

20.1 The Bidder shall designate the official mailing address and place to which all correspondence shall be sent by the Tenderer.

21. Liquidated Damages and Penalties

21.1 The successful tender shall complete the awarded contract (work) on turnkey basis as per terms and conditions of the tender. If the successful Bidder fails to complete awarded work in time, he shall pay to the ERNET without prejudice to any other rights or remedy as may be available to the Tenderer, an agreed compensation amount calculated @ 1% of the total value of the work per week subject to a maximum of 10% of PO value. In case of unacceptable delay in execution and completion of work, ERNET may consider to cancel the awarded work order.

21.2 In addition, in respect of the on-site Comprehensive AMC, warranty of the items, goods etc, operation of the network by the Bidder would ensure compliance to performance test (**as in Section-F**) including SLA conditions with quality of service including other conditions of the tender.

22. Force Majeure

22.1 ERNET may grant an extension of time limit set for the completion of the work in case the timely completion of the work is delayed by force majeure beyond the contractor's control, subject to what is stated in the following sub paragraphs and to the procedures detailed there is being followed. Force majeure is defined an event of effect that cannot reasonably be anticipated such as acts of God (like earthquakes, floods, tsunami etc.), the direct and indirect consequences of wars (declared or un-declared), national emergencies, civil commotions and strikes (only those which exceed a duration of ten continuous days) at successful Bidder's factory. The successful Bidder's right to an extension of the time limit for completion of the work in above mentioned cases, is subject to the following procedures:

- a) That within 10 days after the occurrence of a case of force majeure but before the expiry of the stipulated date of completion, the Bidder informs ERNET in writing that the Bidder considers himself entitled to an extension of the time limit.
- b) That the successful Bidder produces evidence of the date of occurrence and the duration of the force majeure in an adequate manner by means of documents drawn up by responsible authorities.
- c) That the successful Bidder proves that the said conditions have actually been interfered with the carrying out of the contract.
- d) That the successful Bidder proves that the delay occurred is not due to his own action or lack of action

22.2 Apart from the extension of the time limit, force majeure does not entitle the successful Bidder to any relaxation or to any compensation of damage or loss suffered.

23. Arbitration and Laws

23.1 Except, where otherwise provided for in the contract, all questions and disputes relating to the meeting of the specifications, designs, drawings, and instructions herein before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be settled within thirty (30) days (or such longer period as may be mutually agreed upon) from the date that either party notifies in writing that such dispute or disagreement exists, shall be settled under the Rules of India Arbitration and Conciliation Act, 1996. The venue of Arbitration shall be New Delhi, India. The arbitration resolution shall be final and binding upon the parties and judgment may be entered thereon, upon the application of either party, by any court having jurisdiction.

23.2 This contract shall be governed by the Indian laws.

24. Import License

24.1 ERNET India is an autonomous scientific society under Department of Electronics and Information Technology, Ministry of Communications and Information Technology, Govt. of India. It is registered with Department of Science & Technology. Remote items (VSATs) would be purchased with full custom duty. **Financial comparison of bids will be made accordingly i.e. with full custom duty component.**

24.2 In case of imported articles, the Bidders will require to coordinate with the agencies for obtaining Import license. ERNET India will provide all the necessary documents (details of documents and their filled draft copy shall be provided by the Bidder) and would pay/reimburse its fee (on submission of its documentary proof) to obtain AIP, Import licenses, etc. required for custom clearance of all imported equipments shall be arranged by the Bidder.

24.3 Bidder will be responsible for clearance of all the imported items from the customs, etc. ERNET India will provide all the necessary documents for the same (details of documents and their filled draft copy shall be provided by the Bidder). Custom duty paid by the Bidder will be reimbursed on production of its documentary proof on actual basis.

25. Assignment

25.1 The Bidder shall not assign, in whole or in part, its obligation to perform under this contract, except with the Tenderer's prior written consent.

26. Sub-Contract

26.1 The Bidder shall notify the Tenderer in writing of all sub-contracts awarded under the contract, if not already specified in his bid. Such notification, in his original bid or later, shall not relieve the Bidder from any liability or obligation under the contract.

27. Delays in the Vendor's Performance

27.1 Delivery of the goods including services and performance of service shall be made by the vendor in accordance with the time schedule specified by the Tenderer in its Schedule of Requirements.

27.2 An un-excused delay by the Vendor in the performance of its delivery obligations shall render the Vendor liable to any or all of the following sanctions: forfeiture of its performance security, imposition of liquidated damages, and/or termination of the Contract for default.

27.3 If at any time during performance of the Contract, the Vendor or its sub-contractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the Vendor shall promptly notify the Tenderer in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Vendor's notice, the Tenderer shall evaluate the situation and may at its discretion extend the Vendor's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

28. Termination for Insolvency

28.1 The Tenderer may at any time terminate the Contract by giving written notice to the Vendor, without compensation to the Vendor, if the Vendor 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 the Tenderer.

29. Termination for Convenience

29.1 The Tenderer may by written notice sent to the Bidder, terminate the Contract, in whole or in part (for any item, services, etc) at any time for its convenience. The notice of termination shall specify that termination is for the Tenderer's convenience, the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective.

The notice period in case of termination for convenience shall be 30 days.

In case of Termination for convenience, the customer shall make 100% payment for the items and services delivered as per the contract subject to the following:

-The items and services shall be delivered meeting time guidelines, technical specifications and their acceptance as per the tender.

-The payments for the items and services which will be delivered partially (against the POs) shall not be made.

In case of remote VSAT AMCs, the Tenderer may terminate the AMC of VSATs (either in whole or in part) at any time without mentioning any conditions and as per the convenience of the Tenderer with a notice period of one week.

30. Termination for Default

30.1 The Tenderer may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Vendor, terminate the Contract in whole or in part.

(a) If the Vendor fails to deliver any or all of the goods including services, installation, commissioning, integration with all terms & conditions mentioned in the tender within the time period specified in the Contract/tender, or any extension thereof granted by the Tenderer pursuant to **Clause 22: OR**

(b) If the Vendor fails to perform any other obligation(s) under the Contract

30.2 In the event the Tenderer terminates the Contract in whole or in part, pursuant to Clause 30.1 the Tenderer may procure, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered, and the Vendor shall be liable to the Tenderer for any excess costs for such similar goods not exceeding 10% of the value of PO issued to the bidder against rate contract. However, the Vendor shall continue performance of the Contract to the extent not terminated.

31. Price Fall

31.1 The prices charged for the stores supplied under the Contract by the Vendor shall in no event exceed the lowest price at which the Vendor sells the stores or offers to sell stores of identical description to any persons/organizations including the Tenderer or any department of the Central or State Government or any statutory undertaking of the Central or State Govt. as the case may be during the currency of the Contract.

31.2 If any time during the said period the Vendor reduces the sale price, sells or offers to sell such stores to any person/organization including the Tenderer or any department of State or Central Govt. or any department of a State Govt. for statutory undertaking of the Central or State Govt. as the case may be at a price lower than the price chargeable under the Contract, he shall forthwith notify such reduction of sale or offer to sell to the Tenderer and the price payable under the contract for the stores supplied after the date of coming into force of such reduction or sale or offer to sell shall stand correspondingly reduced.

32. Passing of Property

32.1 Ownership shall not pass to the Tenderer unless and until the system has been delivered, installed, commissioned, operationalized, functional and accepted, in accordance with the conditions of the contract to the entire satisfaction of the Tenderer.

SECTION – C

TENDER REQUIREMENTS AND GENERAL TERMS & CONDITIONS

1. Purpose

1.1 This Tender document includes requirement in respect of description/Specification of items and their quantity, delivery, installation, commissioning, integration and maintenance and operations services. The purpose of the RFP (Request For Proposal) as detailed in various sections is as below:

- (i) Maintenance of Hub side equipments
- (ii) Maintenance of remote VSATs
- (iii) Operation of the Network
- (iv) Supply of VSATs (which includes supply of VSAT equipments up to the remote site, their installation, commissioning, integration with the existing ERNET SkyEdge VSAT network to access Internet, Intranet and related applications with its full functioning, etc)

The supplied items & services should meet all the specifications and performance as specified in the tender.

1.2 The overall commissioning and integration of the supplied VSATs and other equipment associated with the existing ERNET SkyEdge VSAT network into one seamless SkyEdge network and performance of the network / VSATs to satisfy all technical and functional requirements.

1.3 The equipment should meet all the specifications and performance tests as mentioned in the tender.

1.4 The detailed scope of the Tender is covered in **Section - D**.

2. Warranty

2.1 All goods or material shall be supplied strictly in accordance with the specifications. The goods/materials supplied and used by the successful Bidder and its workmanship should be of proper quality so as to fulfill in all respects the operating conditions and other requirements specified in the tender.

2.2 If any trouble or defect originating with the design, materials, workmanship or operating characteristic of any materials arise any time during the validity of the contract the Bidder at his own expense and at no cost to ERNET as promptly as possible (in a maximum time of four weeks) make such alterations, repairs and replacements at site as may be necessary for the functioning of the equipment in accordance with the specifications.

2.3 ERNET may at its option remove such defective material at the Bidder's expense, if the

Bidder does not act reasonably after being informed.

3. Factory Inspection

- 3.1** 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 either replace the rejected goods or make all alterations necessary to meet specification required free of cost to ERNET India.

4. Packing and Marking

- 4.1** All packing should be strong enough to withstand rough handling by loaders, un-loaders and other transporters. Fragile articles should be packed with special precaution and should bear the marking like Fragile, Handle with care and/or 'This Side Up' etc.
- 4.2** All delicate surfaces of equipment/goods should be carefully protected and painted with protective paint/compound and wrapped to prevent rusting and damage.
- 4.3** Attachments and spare parts of equipment and all small pieces shall be packed in wooden cases with adequate protection inside the case and wherever possible should be sent along with the major equipment. Each item shall be tagged so as to identify it with the main equipment and part number and reference number shall be indicated.
- 4.4** All protrusions and threaded fittings shall be suitably protected and the openings shall be blocked by covers.
- 4.5** The successful Bidder shall be held liable for all damages or breakages to the goods due to the defective or insufficient packing as well as for corrosion due to insufficient packing.
- 4.6** On three sides and top of package, markings as desired by ERNET, shall be done with indelible ink paint.

5. PATENTS, SUCCESSFUL BIDDER'S LIABILITY & COMPLIANCE OF REGULATIONS

- 5.1** Successful Bidder shall protect and fully indemnify the ERNET from any claims for infringement of patents, copyright, trademark or industrial design rights arising from the use of the Goods or any part thereof.
- 5.2** Successful Bidder shall also protect and fully indemnify the ERNET from any claims from successful Bidder's workmen/employees, their heirs, dependents, representatives etc or from any other person(s) or bodies/companies etc. for any act of commission or omission while executing the order.
- 5.3** Successful Bidder shall be responsible for compliance with requirements under the laws and shall protect and indemnify completely the ERNET from any claims/penalties arising out of any infringements.

- 5.4 Notwithstanding anything contained herein, neither party shall be liable for any indirect, punitive, consequential or incidental loss, damage, claims, liabilities, charges, cost, expense, or injury (including without limitation, loss of use, data, revenue, profit, business, and for any claims of any third party claiming through service provider) that may arise out of or result from this agreement. The aggregated liability of service provider under this agreement shall not exceed the total value of the contract.
- 5.5 The Bidder shall ensure that the equipment/services/software they supply are safe to connect in the network, have been checked thoroughly for risks and vulnerabilities, all addressable vulnerabilities have been addressed, non-addressable vulnerabilities have been listed with remedial measures and precautions provided. The Bidder shall cover all aspects related to security of supplied items, services and in case of breach, particularly the security breaches pertaining to supplied items and services, the Bidder shall be responsible fulfilling all criteria's as well as bound with the DoT letter no 815-66/2011-DS dated 03.06.2011 (available on the DOT web site).

6. Substitution & Wrong Supplies

- 6.1 Unauthorized substitution or materials delivered in error of wrong description or quality or supplied in excess quantity or rejected goods shall be returned to the successful Bidder at his cost and risk.

7. Insurance, Freight & Part Supplies

- 7.1 Arrangements to be made by the bidder to transport equipment by road/air/sea and deliver the same at the **site at the address to be indicated by ERNET**.
- 7.2 The supply of goods ordered should be fully completed at the remote in 1 (one) part shipment within the stipulated delivery schedule. Partial shipment at the remote site is not allowed unless and until instructed by ERNET India otherwise.

8. Dispatch & Delivery of equipments

- 8.1 The successful Bidder shall forward **two sets of proof of dispatch and delivery documents** to the Registrar, ERNET India, Ministry of Communications and Information Technology, 10th Floor, Jeewan Prakash Building, 25, K.G. Marg, New Delhi -110 001.

9. Installation, Commissioning and Acceptance of the equipment

- 9.1 The systems shall be supplied as per the time schedule mentioned in **Annexure-II**.
- 9.2 The Bidder shall be responsible for arranging & maintaining all **test and measuring instruments** required for installation, commissioning, integration, functioning, on-site maintenance and operation of the network at his cost. The Bidder will also keep ERNET informed well in advance for support infrastructure required, if any.
- 9.3 During the installation and warranty/AMC period of remote VSATs, adequate number of engineers (for 24x7x365days support) identified by the Bidder shall be made

available at the Hub station to coordinate the installation, commissioning, integration and support during the warranty/AMC period to ensure satisfactory performance and SLA. The engineers deputed will receive and handle the complaints of remote sites and will coordinate to resolve them in stipulated time. The engineers deputed at hub will maintain the records of utilization details of the VSAT link.

- 9.4 The Bidder should specify the infrastructure requirements for the installation of VSATs during site-survey at the site. The Bidder should submit one copy of site-survey report to ERNET user and a signed copy to ERNET HQ.
- 9.5 The Bidder shall be responsible for installation and commissioning of the VSATs supplied at ERNET user sites. The VSATs installed should meet the performance test (as in Section-F).
- 9.6 The installation shall be carried out in conformity with the local fire regulations and rules thereunder wherever they are in force
- 9.7 The performance test shall be carried out by the Bidder in the presence of ERNET or its user or any other person(s) or agency designated by ERNET at the time of installation and commissioning of the VSATs at the sites.
- 9.8 In case the required Performance is not obtained within the stipulated time of VSAT installation, the Tenderer shall have the right to reject the equipment and Bidder has to replace the equipment.
- 9.9 The equipment will be accepted after the satisfactory establishment of VSATs meeting all tender terms and conditions. The Bidder has to submit the installation and commissioning report of the VSAT signed by the authorized remote user. Format of Installation and commissioning report of VSATs is at **Annexure-VIII**.
- 9.10 All expenses for the establishment of VSATs i.e site survey, equipment delivery at site, installation, activation, commissioning, functioning, integration, all taxes, Govt levis, Entry tax, etc (as indicated in the tender) shall be quoted by the Bidder.

10. Time: The Essence of Contract

- 10.1 The time and date of completion of the works as contained in the Bidder's proposals and as agreed to contractually after modifications, if any, shall be final and binding upon the Bidder. It must be understood that the Bidder has made the proposal after fully considering all such factors, which may have any bearing on the time schedule whatsoever.

11. Delay & Non Conformance

- 11.1 In case of the above time schedule including levy of liquidated damages for late delivery of equipment not being adhered to, ERNET has the right to cancel the order wholly or in part without any liability to cancellation charges and procure the goods elsewhere in which case the successful Bidder shall pay the difference, the cost of goods procured elsewhere and price set forth in the order with the successful Bidder.

11.2 In the event of rejection of non-conforming goods, the successful Bidders shall be allowed to correct the non-conformities without extension in delivery period. If successful Bidder fails to do so within the stipulated time, the Tenderer shall have the right to take recourse to **11.1**.

12. Price

12.1 The Bidder shall confirm that quoted prices shall be firm and fixed and subject to no escalation whatsoever till the validity period of the contract. All the imported items must be quoted in US \$ and all the indigenous items in Indian Rupees. In case of imported items, the full custom duty applicable to the FE component must be specified separately. The rates applicable for statutory levies such as Customs Duty, Excise Duty, Octroi, Sales Tax, Service tax, VAT etc. must be indicated separately. The prices must be quoted strictly on FoB basis in the formats at Annexure-III, III-A & III-B.

12.2 ERNET at its option, may decide to place the order directly on the foreign manufacturer on FOB basis for imported equipment

12.3 Notwithstanding any of the Bidders specific formats for pricing, item-wise cost of each item shall be given to enable a comparative analysis to be made individually of all equipment and services for establishing the network.

12.4 The Bidder shall quote for all the items, services, etc as per the tender. Partial submission of bids will not be acceptable.

13. Spares

13.1 The Bidder shall maintain required spares at its various regional offices spread over the country for remote VSATs during the warranty and AMC period to meet Service Level Agreement (SLA).

13.2 All the spares for the equipment under the contract will strictly conform to the specifications, quality and will be identical to the corresponding main equipment/components at the sites and shall be fully interchangeable.

13.3 The successful Bidder shall warrant that all spares supplied will be of same make, model, specifications, working conditions, performance at the sites and in accordance with the contract document and will be free from defects in design, material and workmanship.

13.4 For the new items supplied under this tender, the successful Bidder shall guarantee the long-term availability of spares to the buyer for the full life of the equipment (estimated to be 10 years).

13.5 The successful Bidder shall guarantee that before going out of production of spare parts of the equipment covered under the contract, successful Bidder shall give ERNET at least twelve (12) months advance notice so that the later may order its bulk requirement of spares, if ERNET so desires or replace with buyback option.

13.6 Further, in case of discontinuance of supply of spares by the successful Bidder or his subcontractor, the successful Bidder will provide ERNET with full information for replacement of such spares with other equivalent makes, if so required by ERNET.

14. Payment Terms

Payment to the supplier shall be made in the following manner:

- (i) **In case of imported items**, the Letter of Credit would be opened by ERNET India through our Banker. However, the bidder would be required to submit the Bank Guarantee of the equivalent amount of the bid value as mentioned under **Clause 16 of Section B**
- (ii) **In case of Rupee Value items:** 100% of cost of equipment, accessories, services, etc after their acceptance (meeting all tender terms and conditions) shall be released subject to the submission of PBGs as per the tender conditions.
- (iii) **Payment towards on-site comprehensive AMC and operations:** Payment towards services like on-site comprehensive AMC, operations, etc will be released on quarterly basis after completion of each quarter period subject to providing satisfactory services as per the tender terms and conditions and meeting SLA. However, advance yearly payment may be considered against submission of equivalent amount of Bank Guarantee valid for the liability period plus additional three months.

15. Rate Contract for Supply of VSAT equipments

The rates quoted by the Bidder shall be valid for the period of five years and three months from the date of signing of the contract.

ERNET India reserves the rights to purchase the items, services, etc as mentioned in the tender at any time during validity of the contract or tender or rates and the Bidder shall be bound to supply the equipments, services, etc during the aforesaid period on the same rate and terms & conditions as agreed in the contract.

In case contract is not signed, than date mentioned in the initial (first) purchase order of any item, services, etc shall be treated as date of contract and final prices offered by Bidder shall be treated as prices of equipment, accessories, services etc. All terms of the tender will be applicable.

The tenderer will have the right to procure 50% of any items, services, etc over and above the bill of material mentioned in this tender if required on urgent basis on repeat order basis during the validity of this contract.

16. Deductions

16.1 Payments, as envisaged in **Clause 14**, shall be subject to deductions of Tax / levy / any amount, for which the Bidder is liable under the agreement against this tender.

SECTION – D

SCOPE OF THE TENDER

1. Introduction

ERNET India operates a C-band VSAT Network having its VSAT Hub located in the premises of STPI, Bangalore. The RF spectrum being used is on the Normal C-band transponders of INSAT-3C satellite. In brief, the VSAT Network of ERNET India comprises of the following basic components:

At Hub side:

- (i) RF Chain with 9.2 meter antenna, LNAs, HPAs (TWT type), Up /Down converters, Antenna tracking unit, splitters/combiners, etc
- (ii) Base band of SkyEdge with NMS from M/s Gilat Satellite Networks for providing SkyEdge IP Broadband VSATs to the users/sites
- (iii) Baseband of Skylinx 8000 with NMS from M/s ViaSat for providing SCPC DAMA VSATs to the users/sites

At Remote sites:

- (iv) 310 numbers of SkyEdge IP Broadband VSATs in various academic, research institutions, etc spread throughout the country
- (v) 07 numbers of SCPC DAMA VSATs in various academic, research institutions, etc spread throughout the country

2. Scope of the tender

2.1 ERNET India intends to procure the following items, accessories, services etc:

- (i) On-site Comprehensive Maintenance of existing Hub side equipments for a period of five years (renewed on annual basis on the basis of performance).
- (ii) On-site Comprehensive Maintenance of existing remote VSATs for a period of five years (renewed on annual basis on the basis of performance)
- (iii) Operation of the Network for a period of five years (renewed on annual basis on the basis of performance)
- (iv) Supply of VSATs and related items during the period of rate contract (which includes supply of VSAT equipments up to the remote site, their installation, commissioning, integration with the existing ERNET SkyEdge VSAT network to access Internet, Intranet and related applications with its full functioning, etc with minimum one year on-site comprehensive warranty period)
- (v) On-site comprehensive maintenance of new supplied VSATs after completion of their warranty period and during the period of the contract.

The supplied items, accessories, services, etc should meet all the specifications, terms & conditions and performance as specified in the tender.

3. General Conditions:

- 3.1 The Bidder has to supply & deliver the VSAT equipments at the remote user sites spread all over the country. The related services include site survey, installation, commissioning and integration of supplied VSAT items with the existing ERNET SkyEdge Hub so that the entire network seamlessly offers high level of services and meets the Performance tests and other conditions as specified in the tender.
- 3.2 The Bidder will be responsible for the satisfactory installation, commissioning and integration of the new supplied SkyEdge IP VSATs. The Bidder has to submit the installation and commissioning reports to ERNET India of all the supplied VSATs at various ERNET user sites in the format prescribed at **Annexure-VIII** of tender.
- 3.3 The Bidder will provide the on-site comprehensive warranty and on-site comprehensive AMC services for the new supplied VSATs as well as on-site comprehensive maintenance of existing VSATs and Hub side equipments (including all hardware, software, accessories, cables, connectors, etc) with required Performance, SLA and meeting tender conditions.
- 3.4 The existing SkyEdge baseband Hub of ERNET has sufficient infrastructure to add another 100 SkyEdge IP Broadband VSATs.
- 3.5 The supply, installation and commissioning of Broadband VSATs and all services as mentioned in the tender is to be completed as stated in time schedule at **Annexure-II**.
- 3.6 The services shall be renewed on annual basis at the sole discretion of Tenderer.

SECTION–E

QUALIFYING CRITERIA FOR RESPONSIVENESS OF TENDERS

The Bidder must meet all of the following eligibility requirements. Tenders of non-compliant Bidder will not be technically or commercially evaluated and reflected.

1. The Bidder should have expertise and “hands on” experience in the field of Satellite Communication (including Wide Area Network design involving Broadband VSATs, Satellite Gateways, system integration, feasibility studies, supply, installation, commissioning, comprehensive on-site maintenance of VSATs as well as VSAT Hub and VSAT Network operations etc.) at least for a period of **Three years** and deploying the latest State-of-the-art technologies.
2. Bidder must have (i) supplied, (ii) installed, (iii) commissioned, (iv) maintained and (v) operationalized at least two Broadband VSAT network (including Hub with RF chain) in the country with a total base of at least 1000 Nos. of remote Broadband VSATs. (Captive network of the Bidder is permissible).
3. Bidder must have supplied, installed, commissioned, maintained and operationalised at least 100 Broadband VSATs of M/s Gilat Satellite Networks, 25 SCPC VSATs, Operations and maintenance of one VSAT Network including VSAT Hub of M/s Gilat Satellite Networks in the country. The Bidder must be engaged in providing above mentioned things continuously at least from last three years.
4. The Bidders must have a total IT staff of at least 50 technically qualified personnel in providing the managed VSAT services in the last 2 years. The Bidder must have qualified technical staff deployed all over the country for installation and maintenance of remote VSATs. The Bidder shall have at least 10 support offices (in all the four regions North, South, West and North-East) spread throughout the country.
5. The Bidder should have prior experience in successful execution of VSAT network implementations of at least 2 projects whose individual value is not less than Rs. 35 lakhs.
6. A list of purchasers of SkyEdge VSAT equipment through the Bidder, in last three years along with quantity, Completion and Performance Certificates from the user agencies must be enclosed.
7. The annual turnover of the Bidder for the last three years should be a minimum of Rs. 5 Crores from Indian Operations (in each year).
8. The Bidder may be Indian or Foreign Company but must have office and firm arrangement in India to supply, install, commission and provide support,

comprehensive on-site maintenance services and operations of the network on turnkey basis

9. The Bidder shall be authorized **DEALER** and shall be in possession of a **DEALER's LICENSE** meeting norms of DoT for procurement of items as per this tender.

10. Bidders must submit (i) Tender fee and (ii) Earnest money deposit (**Refer Section B**).

All the above Eligibility Criteria must necessarily be supported by relevant documentation such as Details of VSATs supplied & maintained, Authenticated VSATs list, VSAT n/w operating license, Purchase order copies, Annual reports of the last three years , Project sign-off document, Customer reference list along with contact details, List of Purchaser of similar equipments, number of VSATs installed of same equipment as quoted/required in the tender (along with their list), operation of VSAT Network, maintenance of VSAT Hubs etc. along with the Technical Part of the Bid.

The Bidder should supply, install and support the VSAT network directly. In case of subcontracting required for civil works, the Bidder shall be solely responsible for the deliverables from these subcontractors and under no circumstance shall transfer the subcontractor's liabilities to ERNET.

NOTES:

- a) The Bidder should submit Manufacturer's Authorisation in the form prescribed in **Annexure-V**.
- b) The Bidder must submit documentary evidence testifying fulfillment of all the above criteria prescribed in Bidder's Profile proforma given at **Annexure-VI**.
- c) Bidder is duty bound to observe all the Laws, Rules, Regulations, Policies, Procedures and Guidelines of the Government of India as in force from time to time to establish and operate the supplied VSATs.
- d) The Articles of Association and Memorandum of Association of the Bidder are to be submitted along with the certificate of incorporation.

SECTION – F

TECHNICAL REQUIREMENTS

1. About existing ERNET VSAT Network

ERNET India operates a C-band VSAT Network having its VSAT Hub and Network Control Centre (NOC) located in the premises of STPI, Bangalore. The RF spectrum being used is on the Normal C-band transponders of INSAT-3C satellite. The details of existing VSAT Network of ERNET India is given at **Annexure-I**. Presently, all these existing equipments are under on-site comprehensive maintenance and are in operation / working. If any Bidder desires to see the existing VSAT Hub located at Bangalore, he may visit during any working day (Monday to Friday excluding holidays) between 3:00PM to 5:00PM from **12.09.2013 to 14.10.2013** with written request and approval from ERNET India, New Delhi at the address given at **clause 3.3 of Section-B**.

2. Requirement details:

The purchase desires to purchase and Tenderer is required to quote for the following items meeting tender terms and conditions:

2.1 Maintenance of Hub side RF items:

The details of Hub side RF items is at Annexure-I.

2.2 Maintenance of Hub side SkyEdge baseband items:

The details of Hub Side SkyEdge baseband items is mentioned at Annexure-I.

2.3 Configuration of Skylinx 8000 VSATs in SCPC mode:

- Presently, ERNET India is using the Skylinx baseband and its NMS to control/monitor the Skylinx based remote VSATs. The Skylinx baseband and its NMS are installed at Hub, Bangalore. ERNET's Skylinx network has 7 numbers of Skylinx based remote VSATs.
- ERNET India proposes to remove the Skylinx baseband (control and monitor chain) and NMS installed at Hub, Bangalore. The active Skylinx VSATs shall be configured to work in SCPC mode to provide point-to-point connectivity. For this, existing set of HSCU chassis and HSCU modem at Hub side and remote side may be used.
- The bidder has to do the above proposed work & configuration. The bidder shall provide the quote/cost for (i) removing the Skylinx baseband and (ii) configuration of Skylinx based remote VSATs in SCPC mode as proposed above. If any additional item, connectors, cables, etc are required, its cost may also be provided with one year onsite warranty from their installation.

2.4 Maintenance of Remote side SkyEdge IP VSAT items:

The details of remote side SkyEdge IP broadband VSAT items at each site are at Annexure-I

2.5 Maintenance of Remote side Skylinx 8000 VSAT items:

The bidder will provide the maintenance support to the existing seven (7) Skylinx based remote VSATs (including their counterpart modem and chassis at Hub side) for a period of one year. The bidder may quote for on-site comprehensive maintenance support for these existing seven (7) VSAT sites. The bidder may include the cost of required spares to support these sites for a period of one year. However, in case the problem at the site or Hub is diagnosed to be due to fault in HSCU chassis or HSCU card, these items (i.e. HSCU chassis and HSCU cards) will be provided to the bidder as spares free of cost after confirming the fault in it. But these items will remain the property of ERNET India. The details of remote side Skylinx 8000 VSAT at each site are given at Annexure-I of tender document. **In this case only (i.e. Skylinx VSATs), manufacturer's authorization (i.e. from ViaSat) is relaxed.**

2.6 Operation of VSAT Network:

The tender is required to depute the required manpower on 24x7x365 basis at VSAT Hub, Bangalore for the operation of ERNET's VSAT Network on turnkey basis. Its details are mentioned in this section separately.

2.7 Supply of 100 Nos of new Remote VSAT equipments during the period of contract

The Bidder has to supply, install, commission and integrate new SkyEdge IP Broadband VSATs and related items at the sites of ERNET's users meeting the tender clauses.

(A) The specifications of SkyEdge IP Broadband VSAT is listed below:

Sr	Item description	Qty
VSAT Electronics		
1	SKYEDGE IP IDU (Gilat)	1
2	ODU TRANS' C-BAND 2Watts (Gilat)	1
3	LNB C-BAND DRO (Gilat)	1
4	CABLE POWER 250V/6A 1.8M IN (Gilat)	1
Antenna Assembly		
5	Antenna 1.8M (or 2.4M) –Linear Polarization (Size of antenna will depend on site location and footprints of satellite).	1
6	Non-Penetrating mount of antenna	1
7	IFL cable (2x30meter) with connectors and its good conducting.	1 set
Services		
8	Site-survey of user location to establish VSAT link.	1
9	Installation, commissioning and integration of VSAT.	1

The antenna shall be manually operated. However, it should be provided with suitable steerability arrangement (both for Azimuth and Elevation). The antenna should meet the following specification:

1	Antenna:
	Antenna Diameter 1.8 M /2.4 M, Make : Prodelin Manual Tracking for both Azimuth & Elevation, C-Band Operation, Should be Intelsat Approved in either polarization, The details are as below:
	<ul style="list-style-type: none"> ▪ Size of the reflector: 1.8m RxTx / or 2.4m RxTx ▪ Receive frequency: 3.7GHz to 4.2GHz ▪ Transmit frequency: 5.85 GHz to 6.425GHz ▪ Off-axis radiation pattern as per latest CCIR rec. 580 ▪ Antenna gain C-band: <ul style="list-style-type: none"> Tx: 39.5 dBi, Rx : 35.5 dBi – (1.8m antenna) Tx: 42.0 dBi, Rx : 38.0 dBi – (2.4m antenna) ▪ Noise Temperature at 30 degree elevation: 47deg K (for 1.8M antenna), 45deg K (for 2.4M antenna), ▪ Antenna steerability: 5 – 90 deg. Continuous Elevation, 0 – 360 deg. Continuous Azimuth ▪ Feed assembly complete with Feed horn, OMT, Tx / Reject Filter ▪ Polarization: Linear (Upgradeable to circular polarization if required by changing only feed)

The antenna shall support RFT of 5Watts in size of all types. The entire antenna including its back structure shall be from same OEM and from single source.

(B) The Bidder will deliver, install and commission new SkyEdge IP VSATs at the ERNET user sites on turnkey basis. The VSAT shall meet the Performance test as given in this section.

(C) General Technical Specifications:

- a. All the new software versions and development related to upgradation of VSATs shall be provided free during the warranty period of one year.
- b. The Bidder will ensure on line monitoring and management of the remote VSATs to achieve the desired performance.
- c. The Bidder will submit detailed On-site Comprehensive Maintenance proposal describing all activities, resources, manpower etc. to ERNET India before taking up of the same.
- d. All equipment at the remote VSAT sites shall operate with $230 \pm 10\%$, 50 Hz, AC (single phase). The Bidder would indicate the requirement of electric load including requirements for lighting, air conditioning etc.
- e. The equipment shall operate without any deviation in quality or degradation of system performance and all the parameters detailed in these specifications shall be guaranteed over the following environmental conditions:

- i. Protection against = Rain, Dust, Corrosion, possible hazards including EMI.
 - ii. Operating Temp. = '0' degree to 45 degree C for *indoor equipment*.
 (-)3 degree C to 55 degree C *for outdoor equipment*
 - iii. Relative Humidity = 95% at 40 degree C
- f. The antenna FEED should be adequately protected keeping in view the weather conditions in the North-East Region, Sikkim, Andaman & Nicobar Islands, Lakshdweep Islands and Jammu & Kashmir region.
 - g. All equipment supplied under this contract shall meet the prescribed standards of the Department of Telecommunication, Govt. of India.
 - h. Antenna will be mounted using Non Penetrating Mount supplied under this tender. The Bidder will ensure to put the sufficient weight on the Mount of the antenna so that alignment of the antenna will not get disturbed by high speed winds within the permissible limits of Antenna specifications. Antenna should not fall by high speed winds. If any damage occurs due to these, than it shall be repaired under AMC/Warranty conditions.
 - i. Modem (IDU) of the VSAT shall mounted such that its connectors should not damage due to IFL cable disturbance. For the same, IFL cable should be fixed properly near the IDU.
 - j. The Bidder is required to ensure latest state-of-the art technology and standards and accordingly ensure supply of equipment with the best performance and Quality of Service

3. Frequency of Operations

- 3.1 The new supplied VSAT System shall operate in **C-Band**. The Bidder will do the site survey of the remote location and will do the link engineering with proper fade margin for the requirement of 1.8M antenna or 2.4M antenna at the site considering the parameters applicable for the North-East Region, Sikkim, Andaman & Nicobar Islands, Lakshadweep Islands and Jammu & Kashmir region.

4. WPC import and operating license and other statutory approvals:

- 4.1 The Purchaser has the Captive CUG VSAT Network license from Department of Telecommunications.

For the new VSATs, the Bidder shall arrange necessary License (i.e from DoT, WPC, etc) for the import, installation and operation of the equipments. It is also the responsibility of Bidder to get necessary licenses from WPC/DoT for supply, installation

and operation of the supplied VSATs for the acceptance of the equipments. The license fee will be borne by ERNET on actual.

If purchaser is required to revise its carrier plan during the period of contract, the Bidder shall also provide the revised carrier plan and link budgeting as per the requirement for the appropriate approvals from NOCC wing of DOT. The coordination shall be done by the Bidder. The bidder will also be responsible to modify/change the carrier plan of the network, as advised by ERNET as and when requested.

The Bidder will also provide all types of consultancy and coordination in regard to licensing work related to ERNET VSAT Network so that VSAT Network related licenses should remain in order.

5. Performance test of SkyEdge IP VSATs

- (i) The Bidder will ensure the fulfillment of the following performance parameters during the warranty and AMC, both for the new supplied and existing VSATs:
 - Network Response (Ping response) from Remote VSAT to Hub less than two (2) seconds.
 - FTP test from the Hub to show the allocated Bandwidth to the VSAT link.
 - No packet loss.
 - Satisfactory Internet Browsing on PC.
- (ii) The Bidder shall assure the following during the warranty and AMC period for both new supplied and existing VSATs:
 - VSAT uptime at Remote site = 99% (averaged on quarterly basis) or as per SLA.
 - Maximum Time To Repair (MTTR) Remote VSATs = as per SLA.
 - All SLA conditions.
- (iii) The Bidder shall ensure that entire Hub side items (all hardware, software, cables, connectors, etc) for the full functioning of remote VSATs should always be in good working and functional conditions meeting SLA and tender conditions.

6. General conditions of Warranty and Maintenance services of Hub side items and remote side VSAT items:

- 6.1 Warranty will be for the new supplied VSAT items and Maintenance (AMC) will be for the existing Hub and remote side items. After warranty period, Maintenance (AMC) will be applicable for the new supplied VSAT network related items.
- 6.2 Both warranty and maintenance (AMC) will be on-site comprehensive basis.
- 6.3 The Vendor shall indicate detailed process of warranty (for minimum one year period of new supplied VSATs) and AMC of Hub side as well for remote VSATs for the period of five (5) years [In five years, one year warranty period of new supplied VSATs is included]. This will include spares inventory, manpower for 24/7/365 level operations, etc. Warranty period will be of minimum one year after the satisfactory installation &

commissioning of the VSATs with its signed installation report from the user/site official and meeting all terms and conditions of the tender. During the warranty and AMC, the performance of the Hub as well as VSATs should meet all the criteria's of the tender.

The details of existing Hub side equipments and remote side VSAT equipments is mentioned in the tender document.

The Bidder shall accept the AMC of both Hub side and remote side VSATs as-is-where-is basis. However, it is submitted only for information to the Bidder that all items at Hub side and remote VSATs are presently under on-site comprehensive maintenance and are in working condition.

- 6.4 The Bidder shall do the preventive maintenance of the Hub side equipments on regular intervals. Its prior schedule and requirement should be intimated to ERNET India in advance. If Bidder is not having the sufficient capability to do the preventive maintenance of some of the equipments like Hub Antenna, High Power Amplifiers, etc, then its preventive maintenance as well as maintenance should be carried out with the help of their OEMs or authorized service partners. Thus, if the Bidder is not having the sufficient capability to perform the maintenance of any item (both hardware as well as software) in the network, than Bidder should ensure its back-to-back support from either OEMs or authorized service partners. However, all end responsibility should be of the Bidder in all respect of on-site comprehensive maintenance.

The report of preventive maintenance and maintenance performed shall be provided to the purchaser.

- 6.5 The Bidder has to maintain the required spares at their Regional offices to provide the warranty and AMC of remote VSATs as per the SLA. For the maintenance of Hub side equipments, the tender has to maintain the required spares either in their office/store located in Bangalore or at ERNET Hub, Bangalore to meet SLA conditions. In case of failure of any equipment, it should be repaired or replaced immediately meeting SLA.
- 6.6 The Bidder would deploy sufficient and competent personnel at VSAT Hub, Bangalore to manage the installation, commissioning and integration of new VSATs with the existing Hub items.
- 6.7 After the installation of VSATs, the personnel deployed (competent) by the Bidder (for 24x7x365 days basis) at Hub will receive the VSAT related complaints and will coordinate to rectify them as per the SLA to meet the required performance of the VSATs. The Bidder manpower will provide (on daily, weekly and monthly basis) the status of VSAT links, the complaints related with VSAT links, follow up action, down time and any other relevant information required by ERNET officials to run the network.
- 6.8 The Bidder would deploy competent personnel, preferably from the local at various critical locations so that the problems can be resolved without any wastage of time.
- 6.9 The Bidder shall maintain a system for fault reporting and their management ensuring information flow mechanism as per the requirements of the ERNET. The system should support lodging of complaint, generating trouble ticket number, track on the complaint,

view of complaint status, action taken information, close of complaint after problem and total down time records. The system shall be configurable as per the SLA.

- 6.10 It would be responsibility of the Bidder to arrange and deploy all resources, material, spares, etc. for this purpose including liabilities of the employees/contractors etc.
- 6.11 The Vendor will sign Service Level Agreement which will be renewed each year (if required) on the basis of performance of the Vendor. The Service Level Agreement is placed at **Annexure-VII**.
- 6.12 The deployed engineers should have at least 2 years experience in the relevant field of handling installation of VSATs, maintenance of VSATs and knowledge of RF section with Degree/Diploma in Electronics/Computer science/ Information Technology. It is preferable that the person should have experience in networking also.

7. Operation of VSAT Network:

- a) The Bidder shall indicate detailed process for operation of the network for five (5) years from the acceptance of the bid / award of the order. The operation will be for 24x7x365 basis. The operation will include management of spares inventory and network performance. The number of persons deployed at VSAT Hub, Bangalore of ERNET for operation of the network should be mentioned. The Bidder must deploy at least two Engineers and one Technical Assistant during daytime i.e. from 7:00AM to 7:00PM and at least one Engineer and one Technical Assistant during night hours i.e. from 7:00PM to 7:00AM. On Saturday, Sunday and National Holidays, one engineer with one technical assistant may be deployed. The deployed engineer should have at least 2 years experience in the relevant field of handling/operation of VSAT hub and RF section with B.Tech or B.E in Electronics/Computer science/ Information Technology OR 3 years experience in the field of handling/Operation of VSAT hub with Diploma in Electronics/ Computer Science/ Information Technology. Engineer should have experience on networking. He should be able to do the link engineering and should be able to optimize the hub network for best performance. Coordination with NOCC, DoS and DoT for analyzing/clearing of cross/ co-pole and spurious signals on the transponder shall be the responsibility of Hub engineer. Technical Assistant should have at least two years of experience in the field of handling/Operation of VSAT Hub with Diploma in electronics / Computer Science / Information Technology. Operation of the hub shall include the network auditing on at least half yearly basis.
- b) For the operation of the network, the Bidder must deploy competent personnel, preferably locals meeting norms of DoT and maintain reasonable level of inventory of essential and key parts both for Hub equipment and Remote VSATs.
- c) As part of the operation, the Bidder would establish a Fault Reporting & Management System ensuring proper flow of information. It should support lodging of complaint, generating trouble ticket number, track on the complaint, view of complaint status, action taken information, close of complaint after problem rectification and total down time records. It should be configurable as per the SLA.

- e) It would be the responsibility of the Bidder to arrange and deploy all resources, material, spares, etc. for the operation of the Hub. The liabilities of the employees/contractors etc. would be of the Bidder.
- f) The Vendor would ensure quality of service to the users of the network and will also ensure network performance. The agreement for operation of the VSAT Network will be renewed on year-to-year based on the performance of the Vendor.
- g) The Bidder would sign Service Level Agreement (which would be renewed each year if required).

8. Service Level Agreement (SLA)

The Bidder will have to sign Service Level Agreement as per details provided in **Annexure-VII**.

- 9. The Bidder shall meet and provide the items and services meeting all norms & guidelines of DoT (Department of Telecommunications) pertaining to VSAT Network of ERNET India.

Details of existing items at VSAT Hub, Bangalore and at remote VSAT sites

1. The details of existing Hub side items are given below. Apart from these items, splitters, combiners, cables, connectors, etc are also part of VSAT network items for the full functionality of the system and will be under on-site comprehensive maintenance with the Bidder. The location of ERNET VSAT Hub and NOC (Network Operation Centre) is as below:

ERNET VSAT Hub and NOC
Software Technology Parks of India
Block III, KSSIDC Complex,
KEONICS Electronic City,
Hosur Road, Bangalore – 561229

2. EXISTING HUB SIDE RF EQUIPMENTS / COMPONENTS

1. C-Band Earth-station antenna – 9.2m – Model No. 920CS
TX Gain=53.6dB, RX Gain=50.1dB
Make: RSI
Procured in the year: 1994
Quantity: 01
2. LNA in 1+1 configuration consists of
Redundant C band, 1:1 LNA system with 45 degree K LNAs
1:1 redundant configuration Plate Assembly
Make: Vertex RSI
Procured in the year: 2002
Quantity: 01
3. Up converter in 1+1 configuration consists of
C Band Up converter (SFC6400)
Freq: 5845-6425 MHz-RF, 70+18 MHz,
125 KHz Step Size
Make: Radyne Comstream Inc.
1:1 Converter Redundancy Switch (RCU101)
(Including interconnect cable for 1:1 configuration)
N(m)-N(m) Low Loss Cable for 6 GHz, length 3 Meter
Procured in the year: 2002 or onwards
Total number of sets: Two sets
4. Down converter in 1+1 configuration consists of
C Band Down converter (SFC4200)
Freq: 3625-4200 MHz-RF, 70+18 MHz,
Make: Radyne Comstream Inc.
1:1 Down Converter Redundancy Switch (RCU101)
(Including interconnect cable for 1:1 configuration)

N(m)-N(m) Low Loss Cable for 4 GHz, length 3 Meter
 Procured in the year: 2002 or onwards
 Total number of sets: Two sets

5. High Power Amplifier with Power combiner system (2:1)
 Make: CPI
 Model: VZC-6967 (3 Nos) of 700/750Watts each
 Frequency 5.85-6.65 GHz
 TWT-Amp., 700W, Input VSWR 1.25:1 (Max),
 Output VSWR 1.25:1 (Max)
 Gain 75dB min. at rated power
 2 TWTA procured in 2001, 1TWTA & PCS in 2007

Note: Tube of the amplifier will be considered as consumable item and will not be covered under maintenance. However, the bidder shall inform to ERNET regarding requirement of its replacement well in advance.

6. Antenna Tracking Unit Make – Radiation Systems
 Beacon Receiver Model 253 (C band) (3.6-4.2 MHz)
 Spare Portable Maintenance Unit (Without Display) (Vertex RSI)
 Transducer Assembly (Vertex RSI)
 Quantity: 01

3. Existing hub side IF Equipment of SkyEdge from M/s Gilat Satellite Networks Ltd

The SkyEdge Baseband of Hub was procured from Gilat Satellite Networks Ltd with its local partner M/s HCL Comnet Limited in year 2006.

Base band system: Make- Gilat, Model: SkyEdge

Outbound: Gilat-SkyEdge

Inbound (Demodulators & associated equipment): Gilat

NMS (Network Management System): Gilat

VSAT System – Remote: Gilat SkyEdge IP VSATs Procured in 2006 and onwards.

Technical Specs

Network	
Architecture	Two-Way, star topology
Frequency Bands	Normal C
Protocols Supported	Enhanced IP features for full flexibility: RIP, IRDP, DHCP, NAT/PAT, IGMP, IP prioritization, ACL, VLAN, DiffServ, IPSec
Remote Terminal	
Outdoor Unit	
Antenna Size	C-Band: 1.8 m ((or 2.4 meter depending on site location and foot prints)
Operating Temperature	-40° to +60°C
Humidity	Up to 100%

Transmitter ODU	2 W C-band
LNB	Standard TVRO type
Indoor Unit	
RF Input /Output	Two F connectors,75 (omega)female
Data Interface	10BaseT LAN
Size	180mm x 190mm x 54mm
Environmental	
Operating Temperature	-5° to +50°C
Conditions	
Relative Humidity	Upto 90%
Hub Station	
Outbound Carrier	
Standard	DVB-S
Carrier Bit Rate	340Kbps to 62 Mbps (Presently set at 21Mbps)
Modulation	QPSK
Coding	Viterbi and Reed-Solomon
FEC rate	½,2/3, 3/4, 5/6, 7/8 , 8/9
Inbound Carrier	
Access Scheme	MF-TDMA (Inbounds in N+M redundant configuration, where M is 10% of N)
Bit rate	60Kbps to 2Mbps
Modulation	GMSK
Coding	Turbo Coding FEC ~ ¾, ~7/8

The Hub side items in SkyEdge VSAT network are as:

Sr.	Hub Side equipment	Main Chain	Redundant Chain
A	Hub Baseband equipments		
1	DVB Modulator Input / Output: MPEG2/DVB-S	1	1
2	IP Encapsulator Make: Sky Stream Networks, OS: Windows NT Embedded, Software version: 4.5	1	1
3	PowerEdge (HSP) Cage: (DPS+HSP) (Inc: PowerEdge Cage, LAN Switch, Power Supply, Fans)	1	1
4	Hub Receiver Units (HRU) (Inc: HRU Cage, Power Splitter, Controller)	4	1
5	Dual Receiver Board (one board supports two Inbounds)	65	7
6	Sync. Device	1	1
7	Giga LAN Switch	3	-
8	Network Management System (H/w+S/w) OS: Windows Server 2003 Standard Edition, NMS	1	1

	Software Version: 15.1.13.16		
9	Browser PC Make: IBM. OS: Windows XP Professional	1	1
10	QoS enforcer (Allot), Series: NetEnforcer AC-402	1	-
11	Remote PC OS: Windows XP Professional	1	-

4. Existing Hub side IF Equipment of Skylinx 8000 from M/s ViaSat Inc.

The Skylinx 8000 Baseband of Hub was procured from M/s ViaSat Inc. with its local partner M/s HCL Comnet Limited in year 2003-04.

Base band system: Make- ViaSat, Model- Skylinx 8000

VSAT System – Remote: ViaSat / Skylinx 8000 Procured in 2003-04 and onwards.

Technical Specs

Sr. No.	Description	Details
1	Technology	DAMA
2	Application	Voice & Data
3	Band	C Band
4	Modulation	Control : BPSK, Voice : QPSK, Data : QPSK
5	FEC	Control : 1/2, Voice : 1/2, Data : 3/4
6	Topology	Star
7	Data rate	Up to 2 Mbps
8	Connectivity	Single hop connectivity

The Hub side items in Skylinx VSAT network are as:

Sr. No.	Hub Side equipment
1	Network Server
2	AMT
3	MSCU
4	Protection Switch
5	Router (Qty: 3), Make/ Mode: Cisco 3745 Ports: 22 WAN Ports (Serial) & 2 LAN Ports (Fast Ethernet) Per Router.
6	Four slot chassis, HSCU Data Card

5. EXISTING REMOTE SIDE VSAT ITEMS:

- 5.1 There may be 310 numbers of SkyEdge IP Broadband VSATs in various academic, research, Government institutions, etc spread all over the country. Some of these SkyEdge IP broadband VSATs are upgraded / migrated VSATs from SkyBlaster 360E technology by replacing IDU. Their state- wise breakup is at Annexure-IX.

Sr	Item description	Qty
VSAT Electronics		
1	SkyEdge IP IDU (Gilat)	1
2	ODU TRANS' C-BAND 2Watts (Gilat)	1
3	LNB C-BAND DRO (Gilat)	1

4	Cable Power 250V/6A 1.8M IN (Gilat)	1
5	Antenna 1.8M (or 2.4M) –Linear Polarization	1
6	Non-Penetrating mount of antenna	1
7	IFL cable with connectors and conduiting	1 set

Note: 2.4 meter in Andaman & Nicobar, Lakshadweep islands, N-Eastern states including Sikkim, J& K.

- 5.2 Presently, there are 07 numbers of Skylinx 8000 SCPC DAMA VSATs in various academic, research, Government institutions, etc spread all over the country. Their state-wise breakup is at Annexure-IX.

Sr	Item description	Qty
VSAT Electronics		
1	Viasat Skylinx 8000 chassis with 4 slots	1
2	HSCU card – ViaSat (For data)	1
3	Video Channel Unit (VCU) card- ViaSat (For voice and control)	1
4	Cisco 1721 or 1841 series Router with 1WAN, 1LAN port	1
5	5 Watt C band RFT/OHT –AAV 980 series-BUC +Converter (Agilis make)	1
6	Antenna- 2.4M –Linear Polarization	1
7	Non-Penetrating mount of antenna	1
8	Cables, connectors including IFL cable with connectors	1 set

- Note:**
- 1. The number of VSATs as mentioned above may vary at the time of awarding their AMC, so AMC should be quoted on per VSAT per annum basis.**
 - 2. AMC of VSATs may be awarded for part or all VSATs at the sole discretion of ERNET India.**
 - 3. AMC of RF equipments may be awarded for part or all equipments.**

TIME SCHEDULE

1. **The Bidder shall complete the following activities in the below mentioned time frame for the supply, installation, commissioning and integration of new supplied SkyEdge IP Broadband VSATs with their full functionality as per tender terms and conditions at ERNET user locations:**

Sr	Activity	Time frame of completion	Remarks
1	The Bidder shall submit the PI to ERNET India of imported equipments for the opening of LC.	One week from the issue of PO	1 weeks
2	Delivery of imported and indigenous items at Central warehouse at Delhi.	Five weeks from the opening of LC.	5 weeks
3	Site-survey of user location and submission of its report to the user and to ERNET HQ.	Three weeks from the issue of PO	Parallel activity.
4	Preparation of site as per the site-survey report by the site. (Any delay in account of preparation of site as per site survey report will not be accounted on the Bidder part)	Two weeks after the submission of site-survey report. This time may vary (/exceed) from site to site.	Parallel activity.
5	Delivery of imported and indigenous items from Central warehouse at Delhi to the user sites. (Any delay in arranging the shipment related papers ie road permits, declarations, challans etc by ERNET India will not be accounted on Bidder's part).	Two weeks from the handing over of shipment related documents to the Bidder by ERNET India.	2 weeks
6	Installation and commissioning of VSAT link.	Two weeks from the delivery of equipment at the site.	2 weeks
Total Time:			10 weeks

Note:

- The Bidder should note that they shall inform to ERNET India at least two weeks in advance (in writing) about all the documents required from ERNET/user sites to establish the Broadband VSAT link. Any delay in providing the above information will be accounted on the Bidder part.
- The Bidder should note that they will inform about all the documents required to ship the equipments to ERNET/ user site locations well in advance to ERNET India in writing, not later than two week after the issue of PO. Any delay in providing the above information will be accounted on the Bidder part.
- ERNET will issue the Purchase Orders or letter to procure the items/services to the successful Bidder after acceptance of their bid. The Bidder will submit the Performance Guarantee (if any required as per the tender clauses) within one week from the issue of PO or letter to procure the items/services.
- ERNET will issue letter of Acceptance of Bid to the successful Bidder.

- Bidder shall provide the correct information to open the LC and shall verify its contents before its opening at ERNET India office. Any incorrect information provided by the Bidder resulting in non-acceptance etc of LC shall be on account of Bidder.

2. For the Operation of the VSAT Network:

The Bidder shall depute all resources including manpower, etc required for the Operation of the VSAT Network within two weeks from the issue of communication (in the form of letter, Purchase order, etc) from ERNET India.

(c) For the Maintenance of the Hub side and remote side equipments (including all hardware, software, etc):

The Bidder shall depute all resources (hardware, software, manpower, etc) required for the on-site comprehensive maintenance of the ordered work within two weeks from the issue of communication (in the form of letters, Purchase Orders, etc) from ERNET India.

Annexure – III

PRICING SCHEDULE (*)

1.	Cost of SkyEdge IP Broadband VSAT equipment--- (for 100 new Remote VSATs)			
	1.1	Imported equipment (Annexure - III A & as per Schedule of Requirements)		
		- CIF cost at port of entry		-----
		- Clearing & other charges, Insurance & Freight upto port of landing		-----
		- Inland freight, insurance etc. up to the site		-----
		Subtotal (1.1)		-----
	1.2	Local equipment (Annexure -III B & as per Schedule of Requirement)		
		- Ex-factory cost of the equipment		-----
		- Statutory taxes & duties – excise, Sales, Service, VAT, entry, octroi etc.		-----
		- Freight, insurance etc. up to the site		-----
		Subtotal (1.2)		-----
	Services			
	1.3	Site survey, Installation, Commissioning, integration costs of 100 new SkyEdge Remote VSATs		-----
TOTAL (1.1 +1.2+1.3)				
	Hub side			
2.	2.1	Operation of the VSAT Network of ERNET (including deputation of required manpower at VSAT Hub, Bangalore for 24x7x365 basis) for five (5) years	-----	
	2.2	AMC of existing RF equipments of VSAT Hub, Bangalore for five (5) years	-----	
	2.3	AMC of existing SkyEdge baseband of VSAT Hub, Bangalore for five (5) years	-----	
	2.4	Onetime cost of (i) removing the Skylinx baseband and (ii) configuration of Skylinx based remote VSATs without this baseband. If any additional item, connectors, cables, etc are required, its cost may also be provided.	-----	
	Remote side			
	2.5	AMC of 310 numbers of existing SkyEdge IP VSATs for five (5) years	-----	
2.6	AMC of 7 numbers of existing Skylinx 8000 VSATs for first (1) year only. The unit cost must be provided to calculate the cost of 7 VSAT sites.	-----		

	2.7	AMC of 100 new supplied SkyEdge IP VSATs for four (4) years (after expiry of warranty period)	-----
		TOTAL (2.1 to 2.7)	-----
3.	Items / Hardware & Software / Services required over the period of contract of 5 years pertaining to SkyEdge VSAT Network		
	3.1	20 Nos of C-band Linear Feed for 1.8M antenna	-----
	3.2	20 Nos of C-band Linear Feed for 2.4M antenna	-----
	3.3	30 Nos of Power Adaptor supplied by gilat (Compatible with SkyEdge IP IDU)	
	3.4	20 Nos of Site survey of remote site	-----
	3.5	20 Nos of De-installation and Installation of 1.8M antenna system for its shifting (excluding its transportation)	-----
	3.6	20 Nos of De-installation and Installation of 2.4M antenna system for its shifting (excluding its transportation)	-----
	3.7	20 Nos of De-installation and installation of Indoor Unit equipment for its shifting (excluding its transportation charges)	-----
	3.8	50 Nos of De-installation and installation of complete VSAT system with 1.8M antenna(IDU & ODU) for its shifting (excluding its transportation charges)	-----
	3.9	20 Nos of De-installation and installation of complete VSAT system with 2.4M antenna(IDU & ODU) for its shifting (excluding its transportation charges)	-----
	3.10	20 Nos of Polarizer for conversion of Linear feed to Circular Feed for 1.8M C-band antenna	-----
	3.11	20 Nos of Polarizer for conversion of Linear feed to Circular Feed for 2.4M C-band antenna	-----
	3.12	20 Nos of Concrete Platform for installing the 1.8M Antenna at user location	-----
	3.13	20 Nos of Concrete Platform for installing the 2.4M Antenna at user location	-----
	3.14	20 Nos of Earthing at remote sites	-----
	3.15	01 Nos of Internal Page Accelerator at Hub with all H/w & S/w rack mounted compatible with the existing Broadband Baseband. It should support 400 VSATs with 512kbps data rate allocated to each VSAT. (Complete technical details with how the enhancement will work to be submitted.)	-----
		TOTAL (3.1 to 3.15)	
4.	Licenses, statutory approvals/clearances etc		-----
5.	GRAND TOTAL Cost (Sr. 1 to Sr. 4)		-----

(*) **Breakup of cost must be furnished-in Annexure III-A & III-B.**

ANNEXURE - III

PRICING SCHEDULE (Contd) & Bill of Material

Annexure III - Bill of Material (Schedule of Requirements - SOR)

S No	Description						Qty
	New SkyEdge IP Broadband VSAT electronics comprising of:						
1	SKYEDGE IP IDU with power cable (Gilat)						100
2	ODU TRANS' C-BAND 2Watts (Gilat)						100
3	LNB C-BAND DRO (Gilat)						100
	-						-
4	Antenna 1.8M with Linear Polarization, Make: Prodelin						70
5	Non-Penetrating mount for 1.8M Antenna and installation of antenna						70
6	Antenna 2.4M with Linear Polarization, Make: Prodelin						30
7	Non-Penetrating mount for 2.4M Antenna and installation of antenna						30
8*	IFL cable with connectors (2x30Meter length) and its conduiting*						100
	Services:						
9	Site survey, Installation and commissioning of VSAT link at user site including its integration, functioning with the existing ERNET VSAT Hub located at Bangalore						
	Sub Total- A (Total of items from Sr. 1 to Sr. 9)						Sub Total -A
	Services details in brief	1st year cost	2nd year cost	3rd year cost	4th year cost	5th year cost	Qty
10	Operation of the VSAT Network of ERNET (including deputation of required manpower at VSAT Hub, Bangalore for 24x7x365 basis)						1 set
	Hub side						
11	AMC of existing RF equipments of VSAT Hub, Bangalore						1 set
12	AMC of existing SkyEdge baseband of VSAT Hub, Bangalore						
13	Onetime cost of (i) removing the Skylinx baseband and (ii) configuration of Skylinx based remote VSATs without this baseband. If any additional item,						One time cost

	connectors, cables, etc are required, its cost may also be provided.						
	Remote side VSATs						
14	AMC of existing SkyEdge IP VSAT per VSAT (unit cost)						310 sites
15	AMC of 7 numbers of existing Skylinx 8000 VSATs for first (1) year only. The unit cost must be provided to calculate the cost of 7 VSAT sites.		NA	NA	NA	NA	7 sites
16	AMC of new SkyEdge IP VSAT per VSAT (unit cost) Note: AMC will be after expiry of warranty period.	1 st year Cost per site per year	2 nd year Cost per site per year	3 rd year Cost per site per year	4 th year Cost per site per year		100 sites
	Sub Total- B (Total of items from Sr. 10 to Sr. 16)						Sub Total -B
17	Items / Hardware & Software / Services required over the period of contract of 5 years pertaining to SkyEdge IP VSAT Network: Note: Optional items shall not be procured immediately. They may be procured over the entire period of contract as and when required. The cost of these items shall be included for evaluating L-1. This is to get the best price quote of these items.						
A	C-band Linear Feed for 1.8M antenna						20
B	C-band Linear Feed for 2.4M antenna						20
C	Power Adaptor supplied by gilat (Compatible with SkyEdge IP IDU)						30
D	Site survey of remote site						20
E	De-installation and Installation of 1.8M antenna system for its shifting (excluding its transportation)						20
F	De-installation and Installation of 2.4M antenna system for its shifting (excluding its transportation)						20
G	De-installation and installation of Indoor Unit equipment for its shifting (excluding its transportation charges)						20
H	De-installation and installation of complete VSAT system with 1.8M antenna(IDU & ODU) for its shifting (excluding its transportation charges)						50
I	De-installation and installation of complete VSAT system with 2.4M antenna(IDU & ODU) for its shifting (excluding its transportation charges)						20
J	Polarizer for conversion of Linear feed to Circular Feed for 1.8M C-band antenna						20
K	Polarizer for conversion of Linear feed to Circular Feed for 2.4M C-band antenna						20
L	Concrete Platform for installing the 1.8M Antenna at user location						20
M	Concrete Platform for installing the 2.4M Antenna at user location						20
N	Earthing at remote sites to protect the VSAT equipment from high voltage. E-N voltage less than two volts to be maintained and the Earth should be less than 2.5						20

	Ohms with one year on-site comprehensive warranty period.	
O	Internal Page Accelerator at Hub with all H/w & S/w rack mounted compatible with the existing Broadband Baseband. It should support 400 VSATs with 512kbps data rate allocated to each VSAT. (Complete technical details with how the enhancement will work to be submitted.)	01
	Sub Total- C (Total of items from Sr. 17 (A) to Sr. 17 (O))	Sub Total -C
	Grand TOTAL (Sub Total -A + Sub Total –B + Sub Total -C)	Grand Total

NOTE:

1. *Additional IFL cable, if required at the site as per the site-survey report will be supplied and installed by the Bidder at the same per meter rate, calculated from the above quoted rate.
2. The Bidder must quote price of each line item of above table. **Bids received without these details are liable to be rejected.**
3. The cost of all above items and services shall be taken into account for the commercial evaluation of the bids. The total cost of the item quoted by the Bidder shall be cost of the item all inclusive at the ERNET's user site.
4. All AMCs shall be on-site comprehensive.
5. Rates of full custom duty shall be taken for commercial evaluation of bids.
6. **Rate of custom duty on each component shall be specified clearly. Otherwise (if not specified), it is assumed that cost quoted is inclusive of custom duty and commercial evaluation will be done accordingly.**

Price Schedule - ANNEXURE - III A (for \$ Items)

PRICING SCHEDULE

| Foreign Exchange Rate: 1US\$ =

S. No.	Item description	Quantity	Unit for Quantity	FOB cost at port of dispatch, per unit	Insurance & Freight upto port of landing Per unit	CIF cost at port of landing, per unit	Inland freight, insurance etc., per unit upto the site	Cost Per unit upto the site	Total cost
(1)	(2)	(3)	(4)	(5)	(6)	(7)=5+6	(8)	(9)=7+8	(9)x(3)

Note: Rate of full custom duty on each component shall be specified clearly. Otherwise (if not specified), it is assumed that cost quoted is inclusive of custom duty and commercial evaluation will be done accordingly.

ANNEXURE - III B (For Local Equipment in Rupees)

PRICING SCHEDULE (Contd)

S.No	Item details	Quantity	Unit for Qty	Cost	Excise, sales tax, service tax, VAT, entry tax, octroi etc	Insurance & Freight upto site, per unit	Cost Per unit	Total cost
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) =(5)+(6)+(7)	(9)=(8)x(3)

Format of Performance Bank Guarantee

PRFORMA FOR BANK GUARANTEE FOR CONTRACT PERFORMANCE

(To be stamped in accordance with stamp Act)

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

(As per clause nos. 16 of Section – B)

Bank Guarantee No.....

Ref.....

Date.....

To

ERNET India
Department of Electronics and Information Technology
Ministry of Communications and Information Technology,
10th Floor, Jeewan Prakash Building
25, K.G. Marg, New Delhi- 110 001

Dear Sirs,

In consideration of the ERNET, Ministry of Communications and 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(herein referred to as the '**Contractor**', which expression shall unless repugnant to the context of meaning thereof, include its successors, administrators executors and assigns), a Contract Bearing No.....dated..... valued at ----- for.....and the Contractor having (scope of Contract) agreed to provide a Contract Performance of the entire Contract equivalent to(-----per cent) of the said value of the Contract to the Owner.

Wehaving its (Name & Address) 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 the Owner, on demand any and all money payable by the Contractor to the extent ofas aforesaid at any time up to(day/month/year) 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 then 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.

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 M/son whose behalf this guarantee has been given.

WITNESS

Signature.....

Name.....

BANK

Signature.....

Name------(Bank's Rubber Stamp)

Official address.....

Designation with Bank Stamp

Attorney as per Power of
Attorney No.....

Date.....

Manufacturer's Authorization Form

Manufacturer's Authorisation Form

To

ERNET India
(Under Department of Electronics and Information Technology,
Ministry of Communications and Information Technology,
Government of India)
10th Floor, Jeewan Prakash Building
25, K.G. Marg, New Delhi -110 001

Dear Sir,

Tender No. _____ dated _____

We _____ who are established and reputed manufacturers of _____ having factories at _____ do hereby authorise M/s. _____ (Name and address of Agents) to bid, negotiate and conclude the contract with you against Tender No. _____ dated _____ for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per clause ____ of the General Conditions of Contract for the goods offered for supply against this invitation for bid by the above firm.

Yours faithfully,

(Name)
for and on behalf of M/s.
(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

Bidder's Profile

A. General Information:

- i) Location of Corporate Headquarters: _____
- ii) Date and country of Incorporation: _____
- iii) Manufacturing facility (ies) Location and Size: _____
(Please attach enclosure for furnishing full information)
- iv) Details Service Facility (ies) Location / Support Offices: _____
 - (a) No. in India
 - (b) Average value of inventory of spares per service location
(Please attach enclosure for furnishing full information)
- v) Turnover
 - (a) Turnover of last three years: _____, _____, _____,
 - (b) Product wise turnover for last three years _____, _____, _____,
- vi) Geographical distribution of the Vendor
(only with reference to VSAT Business) : _____,
(Offices, locations to be specified with their respective staff strength)
- vii) Total number of similar installation by the Bidder year wise (SkyEdge BB VSATs / SCPC VSATs only)
 - (a) Worldwide (excluding India) : _____,
 - (b) In India: _____,
- viii) Total number of Broadband VSAT installations year wise:
 - (a) Worldwide (excluding India): _____,
 - (b) In India: _____,
- ix) Experience in VSAT Hub installation and its maintenance including RF chain with big antenna size (specific details):
 - (a) Worldwide (excluding India): _____
 - (b) In India: _____
- x) Experience in VSAT Hub operation including RF chain (specific details):
 - (a) Worldwide (excluding India): _____
 - (b) In India: _____

- xi) Number of employees related with the following activities:
- (a) VSAT maintenance: _____
 - (b) VSAT Hub Operations: _____
 - (d) VSAT H/w: _____
 - (e) VSAT S/w: _____

B. Similar Reference Sites

S.No.	Customer Name and Address	Contact Person's Name, Designation, Phone/Fax Nos.	Name of Item supplied/date of supply	No. of units supplied

SERVICE LEVEL AGREEMENT

Terms of the Service Level Agreement would be as under:

1.0 Hub Uptime

- 1.1 Bidder guarantees that ERNET VSAT Hub, Bangalore uptime of 99.9% averaged on quarterly basis for 24x7x365 days operation meeting Network performance. The Hub Uptime will be calculated based on the following formula:

$$\text{Hub Uptime (HU) in \%} = ((\text{Hub}_{\text{POT}} - \text{Hub}_{\text{DT}}) / \text{Hub}_{\text{POT}}) * 100$$

Where,

Hub_{POT} = Hub power on time

Hub_{DT} = Hub down time

In case required Hub uptime falls below 99.5% (averaged on quarterly basis), the Bidder shall pay penalty of Rs. 50,000/- per day to ERNET.

Bidder shall ensure that all components installed at hub shall function in good condition. In case of failure of any equipment (hardware/software) at hub, it shall be repaired / replaced immediately, but not later than 24 hours. In case of its non-replacement of the equipment within time, Bidder shall pay penalty of Rs. 50,000/- per day per equipment to ERNET.

- 1.2 In any case if the Hub is not made operational for 10 days from the time of reporting of fault, the Bank Guarantees provided by the Bidder to ERNET shall be invoked and any payment dues and AMC pertaining to this network shall not be paid.
- 1.3 Penalties whichever shall be at the higher side shall be imposed.

2.0 Remote VSAT Uptime / Availability

Bidder guarantees that each C-Band remote VSAT Uptime of 99% (97% for VSATs installed in NEH region, Andaman & Nicobar and Lakshadweep Islands) averaged on quarterly basis (excluding the National holidays – January 26th, August 15th and October 2nd). VSATs should meet Network Performance as mentioned in the tender.

- Individual VSAT downtime refers to the time for which the VSAT equipment is unable to support the satellite link with the Hub, due to failure of the VSAT IDU, RFT, LNB, Antenna system, IFL cable, connectors, etc. The VSAT fault means that remote VSAT not meeting the Performance of VSAT mentioned in the tender.

The maximum time to repair (MTTR) of VSAT will not exceed

- 48 Hrs for all other cities except NEH region, Andaman & Nicobar Islands, Lakshdweep Islands
- 72 Hrs for NEH region, Andaman & Nicobar Islands, Lakshdweep Islands

(For difficult areas like certain parts of NEH region, Andaman & Nicobar and Lakshdweep, Maximum Time to Repair service should not exceed 144 hours in any case)

- In case the maximum time to repair the VSAT exceeds the above mentioned duration, Bidder would pay penalty of an amount of Rs.5,00/- per remote VSAT per day **AND** in case maximum time to repair (MTTR) VSAT exceeds by 10 days, AMC of that VSAT will not be paid for that quarter, whichever be the maximum.
- The Downtime starts from the time complaint is logged at VSAT Hub, Bangalore. Any delay in logging the complaint by user shall be excluded from the downtime calculations.
- Penalties whichever shall be at the higher side shall be imposed

For the purpose of the above clause, non-availability /degradation in the throughput of service on account of the following shall not be construed as defect or interruption in 'Remote VSAT availability':

- a) Failure or fluctuation of electric power.
- b) Accident, neglect of the equipment.
- c) Any fault in any attachments or associated equipment, which is not supplied by the Bidder.
- d) Downtime caused due to optimization and preventive maintenance of VSAT Hub.
- e) Event of Force Majeure conditions like natural calamities, civil disturbance, strike, war, flood etc as described in Contract.
- f) Non-Availability / degradation of satellite / Transponder.

The Bidder shall submit the Maintenance Service Report for each VSAT site duly signed by the official of the site for the confirmation of satisfactory maintenance services and functionality of the link during the period of warranty as well as AMC in case desired by ERNET. ERNET (and Bidder) shall mutually decide the format.

NOTE: The total value of penalties during one year due to non-compliance of Service Level Agreement (SLA) will not exceed the total value of work done by the bidder/work awarded to the bidder by the Bidder for that one year period.

Format of “Installation and Commissioning Report of VSAT”

This is to certify that the following VSAT equipments have been received, installed, commissioned satisfactorily at our site on date with a bandwidth ofkbps:

- List of Equipments:
 - (i) SkyEdge IP IDU, 2 Watt RFT, LNB with cables and connectors.
 - (ii) Dish Antenna with Linear feed and its non-penetrating mount with proper installation. (Size of antenna:.....meter).
 - (iii) IFL cable (2x.....Length in meter) with connectors and its conduiting.
 - (iv) Platform for mounting Antenna. (*Optional*)
 - (v) Earthing with E-N voltage less than 2volts. (*Optional*)

- The following shown to us during the installation/commissioning of SkyEdge Broadband VSAT:
 - (i) Allocated Bandwidth: (*as allocated*) Kbps. (by doing FTP from ERNET Hub)
 - (ii) Satisfactory Internet browsing on a single PC.

Above is certified.

(Name and Signature of user)
Stamp of the institute/ Organization
Date:

Note: The date of installation, bandwidth allocated, size of antenna, length of IFL cable are mandatory fields and must be filled for accounting purpose at ERNET India.

Annexure – IX

Location of VSAT sites/users of ERNET India which may be considered for bidding:

SI No	State	No of VSAT Sites	
		Gilat SkyEdge IP (Broadband VSATs)	ViaSat Skylinx 8000 (SCPC DAMA VSATs)
1	Andaman & Nicobar Island (U.T)	53	1
2	Andhra Pradesh	4	0
3	Arunachal Pradesh	20	1
4	Assam	16	0
5	Bihar	10	0
6	Chandigarh (U.T)	1	0
7	Delhi	0	0
8	Gujarat	7	0
9	Haryana	3	0
10	Himachal Pradesh	5	0
11	Jammu & Kashmir	13	1
12	Jharkhand	7	0
13	Karnataka	16	0
14	Lakshadweep Islands (U.T)	32	0
15	Madhya Pradesh	13	0
16	Maharashtra	13	1
17	Manipur	9	1
18	Meghalaya	10	0
19	Mizoram	2	0
20	Nagaland	7	0
21	Orissa	5	0
22	Punjab	1	0
23	Rajasthan	5	1
24	Sikkim	7	0
25	Tamil nadu	5	0
26	Tripura	5	0
27	Uttar Pradesh	14	0
28	Uttranchal	15	0
29	West Bengal	12	1
	Total Sites	310	7