(128)

EI-D/Tech-050/6/2014-VSAT

ERNET India, New Delhi

Subject: Tender for Procurement of items and services for ERNET India's VSAT Network

This is with reference to the pre-bid queries received to ERNET India in respect of Tender no. EI-D/Tech-050/6/2014-VSAT dated 19.10.2015 for Procurement of items and services for ERNET India's VSAT Network.

2. The response of ERNET India to the pre-bid queries received to us from our various prospective bidders are given at Annexure-I enclosed herewith.

3. The bidders are requested to submit their bid in confirmity with tender no. EI-D/Tech-050/6/2014-VSAT dated 19.10.2015 and subsequent ERNET India's response (on the queries received) attached herewith at Annexure-I. Other terms of tender shall remain same.

B S Singh

Registrar & Director (P&A)

Date: 10.11.2015

Annexure-I

ERNET India, New Delhi

Responses to the queries of prospective bidders are given below:

Ref: Tender for the Procurement of items and services for ERNET India's VSAT Network (Tender No: EI-D/Tech-050/6/2014-VSAT Date: 19.10.2015)

Note:

1. Tender clause statement (written in the below table) can be full or partial statement. Thus, it's starting and end point shall be read carefully. Other parts/sub-parts of the clause shall remain unchanged.
2. The queries of the prospective bidders which are not replied/given/addressed here are not considered by ERNET India. Thus, such clauses remain unchanged.
3. Responses are given below Section wise. Thus, Sections shall be seen carefully.

Section-B			
1.	Tender clause no. & Page	Clause 10.1	Page 8
	Tender clause statement	The bidder shall confirm …….....….Annexure-IV.	
	Queries sought (in brief)	Future variation in Govt. levies/taxes shall be born by the purchaser is not clear.	
	ERNET India's response	A new clause no. 10.5 has been added. It is given below:	
	Clause 10.5	Any variation in central/state Govt (of India) taxes, like sales tax, VAT, custom duty, octroi, etc in future and during the validity of the rate contract will be applicable and same will be born by the purchaser as per Govt rules.	
2.	Tender clause no. & Page	Clause 14.5	Page 10
	Tender clause statement	Bids from bidders without ….....….is give at Annexure-VI.	
	Queries sought (in brief)	Is it essential for bidder to submit the OEMs signatory power of Attorney? (in reference to Note in Annexure-VI)	
	ERNET India's response	The submission of OEM's signatory power of attorney is not mandatory. But, the compliance shall be provided by the bidder.	
3.	Tender clause no. & Page	Clause 22.1	page 14
	Tender clause statement	The successful bidder ……..at any point of time.	
	Queries sought (in brief)	⇨ LD is very high, please amend this to 0.5% to 5% on the delayed value of goods only. ⇨ Also, suggested to add "If the bidder has commissioned 75% of the ordered sites and 100% of the hub components, LD will be applicable on the value of undelivered portion and if 75% remote sites are not commissioned in the stipulated time period then LD will be applicable on the total PO value. The intent for asking for this relaxation is that all the sites are in remote places. Even a single issue in any of the sites can result in huge penalties. ⇨ Please provide definition of unacceptable delay.	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	"The successful bidder 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, bidder shall pay to ERNET India without prejudice to any other rights or remedy as may be available to ERNET India, a compensation amount calculated @ 1% of the total value of the awarded work per week subject to a maximum of 10% of POs value. In case	

		of delay in execution and completion of work, ERNET India may consider to cancel the awarded work order at any point of time. In case commissioning of less than 10% remote VSAT sites gets delayed (due to reasons at the part of bidder) of the ordered value, LD will be applicable only for work pertaining to these sites and not on the full awarded work/POs. But, in case commissioning of these 10% remote VSAT sites get delayed by more than 8 weeks from the specified given time in the Time Schedule (Annexure-III) due to reasons at the part of bidder, than the bidder shall be liable to pay penalty on the full value of POs.	
4.	Tender clause no. & Page	Clause 24.1	Page 15
	Tender clause statement	In the event of any ……including the rules framed there under.	
	Queries sought (in brief)	Request that as a sole arbitrator appointed by ERNET may be biased especially if the parties have not mutually agreed on a neutral arbitrator.	
	ERNET India's response	Modified clause is given below:	
	Modified Tender clause statement	In the event of any dispute or disagreement under or in relation to this tender and contract or over the interpretation of any terms hereinabove contained or any claim or liability of the party, the same shall be referred to the sole Arbitrator to be nominated by mutual consent of both parties therein. The intending party will serve notice in writing upon the other party notifying its intention for appointment of Arbitrator. Should both parties fail to agree on by mutual consent, then the Arbitrator shall be appointed in accordance with Arbitration and Conciliation Act, 1996. The provisions of Arbitration and Conciliation Act, 1996 will apply. The arbitration proceedings will be held in New Delhi, India. The Arbitrator will give reasons for his award and the award passed by the Arbitrator shall be final and binding upon the parties herein. Such reference shall be deemed to be a submission to arbitration under the Indian Arbitration and Conciliation Act, 1996, or of any modifications or reenactment there of including the rules framed there under	
5.	Tender clause no. & Page	Clause 28.2	Page 16
	Tender clause statement	Delays in the bidder's Performance	
	Queries sought (in brief)	Requested to quantify the delay as 90 days beyond the stipulated completion schedule which is 15 Weeks.	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	A delay by the bidder in the performance of its delivery obligations shall render the bidder 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.	
6.	Tender clause no. & Page	Clause 30.1 of Section-B at	Page 16 & 17
	Tender clause statement	**30. Termination for Convenience** 30.1 ERNET India may by written notice sent to the Bidder, terminate the Contract and Purchase Orders, in whole..... ..... time without mentioning any conditions and as per the convenience of ERNET India with a notice period of one week.	
	Queries sought (in brief)	⇨ This clause is not acceptable. This may be dispensed with. ⇨ In case above is not possible, it is requested to consider that items which are in pipe line or in transit stage, should be exempted from this clause and termination of convenience should not be applicable in the said situation. - For the clause i.e. 'The payments for the items and services which will be delivered partially (against the POs) shall not be made', in the event such products are delivered and the payment is not made by ERNET India, the bidder reserves the right to take back such equipment in the condition in which it was delivered and ERNET India shall provide full co-operation for the same - The notice period shall be 60 days. ⇨ Requested to remove the VSAT AMC termination clause (or) provide notice of 60	

		days before the termination.	
	ERNET India's response	Modified clause is given below:	
	Modified Tender clause statement	**30. Termination for Convenience** 30.1 ERNET India may by written notice sent to the Bidder, terminate the Contract and Purchase Orders, 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 ERNET India's convenience, the extent to which performance of work under the Contract and Purchase Order 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, ERNET India shall make 100% payment for the items and services delivered as per the Purchase Orders (POs) subject to the following: - The items and services shall be delivered meeting time guidelines, technical specifications and their acceptance as per the tender. - The items (only hardware) which are in transit stage on the date of written notice of ERNET India for the said termination shall be exempted from this clause, subject to that such items shall get delivered, installed and accepted by ERNET India as per the tender - The payments for the items and services which will be delivered partially (against the POs) shall not be made. In this event, if such products are delivered and the payment is not made by ERNET India, the bidder reserves the right to take back such equipment in the condition in which it was delivered and ERNET India shall provide full co-operation for the same. In case of remote VSAT AMCs, ERNET India 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 ERNET India with a notice period of 30 days.	
7.	Tender clause no. & Page	Clause 33.1	Page 17
	Tender clause statement	Ownership shall not pass to ERNET India unless and until the system has been delivered, installed, commissioned, operationalized, functional and accepted, in accordance with the terms and conditions of the tender and to the entire satisfaction of ERNET India.	
	Queries sought (in brief)	In the current scenario, the title and risk of loss lies with the bidder in spite of the equipment in ERNET premises where the bidder has no control. Once the ordered items are delivered to ERNET, it has to be the sole responsibility of ERNET. In case of any loss or damage due to theft, flood or any other unavoidable circumstances which are beyond the control of the bidder on ERNET's premises, the loss should be to buyer's account. Thus, change the clause.	
	ERNET India's response	No change in the existing clause. However, bidder is advised that items may be insured suitably till the acceptance of the equipment.	
Section-C			
8.	Tender clause no. & Page	Clause 3.1	Page 20
	Tender clause statement	If required, ERNET India or its representative.....supplier shall either replace the rejected goods or make all alterations necessary to meet specification required, free of cost to ERNET India.	
	Queries sought (in brief)	⇨ Please clarify on the travel & lodging expenses involved in such inspections, when foreign travel is involved and size of the team for such inspection. The OEMs charge for FAT based on the number of people visiting for FAT. Please include a separate line item in financial bill of material consisting of FAT charges for one person. ⇨ Please change the clause from if required to mandatory or else specify a separate line item in commercial for such cost.	
	ERNET India's	A new clause no. 3.2 under Factory Inspection has been added in Section-C. It is given	

	response	below:	
	Clause 3.2	The expenses on travel, boarding & lodging etc. shall be borne by ERNET India. The size of team for such factory inspection may be from 2 to 3 members. The factory inspection will pertain to only those items whose Manufacturer's Authorization Form (MAF) is mandatorily required. The list of such items are mentioned at Annexure—VI at page 97. In case, if any cost comes to bidders for such factory inspection, the bidder shall also quote its cost in the financial bid as a separate line item (s) of Annexure—IV. Its cost quoted by the bidders shall be taken for L-1 (lowest bid) evaluation.	
9.	Tender clause no. & Page	Clause 6.2	Page 21
	Tender clause statement	The supply of goods/items ordered should be fully completed at the user remote site in 1 (one) shipment .....shipment at the remote site is not allowed unless and until instructed/allowed by ERNET India.	
	Queries sought (in brief)	Requested to provide Full address of sites along with site readiness confirmation by ERNET along with the PO.	
	ERNET India's response	Site address will be provided to the bidder either with POs or separately. But, the time to complete the work as per Time Schedule (as given at Annexure-III) will start from the date on which site address will be provided to the successful bidder. Regarding site readiness, it is dependent on the site-survey activity. Any delay on account of preparation of site-readiness and its accountability is mentioned in the tender. Annexure-III may also be referred for it.	
10.	Tender clause no. & Page	Clause 8.2	Page 21
	Tender clause statement	The bidder would undertake civil works for installation of antenna at remote user sites with non-penetrating mount and IFL cable conduiting from antenna to the IDU. Any other civil work like power cabling, site preparation etc. for commissioning of the VSAT Network sites shall be the responsibility of the ERNET India. Other civil works, like concrete platform, earthing, etc shall be done as per the purchase orders.	
	Queries sought (in brief)	If the site is not ready within 30 days of supply of equipment, the reason of which is beyond the scope of bidder, The equipment supplied should be deemed as accepted and payment for the same should be released on pro-rata basis.	
	ERNET India's response	Modified Tender clause statement is given below:	
	Clause 8.2	The bidder would undertake civil works for installation of antenna at remote user sites with non-penetrating mount and IFL cable conduiting from antenna to the IDU. Any other civil work like power cabling, site preparation etc. for commissioning of the VSAT Network sites shall be the responsibility of the ERNET India. Other civil works, like concrete platform, earthing, etc shall be done as per the purchase orders. In case remote VSAT site is not ready within 90 days from the PO or site survey report submitted by the bidder at ERNET India (whichever be later) and installation, commissioning of items is pending due to it, than the payment of such items on pro-rata basis will be released on the request of bidder. But, as and when the site become ready, than bidder shall install and commission the items and will make the site/items functional.	
11.	Tender clause no. & Page	Clause 8.13	Page 23
	Tender clause statement	ERNET India shall, however, have the right to reduce the period of 15 consecutive days, 24 hours a day prescribed for acceptance tests.	
	Queries sought (in brief)	There should be a fixed time for acceptance. Post that deemed acceptance should be considered.	
	ERNET India's response	⇨ For clause 8.13, please also read clause 8.8 of this section. This is self explanatory. ⇨ No change in the tender clause statement.	
12.	Tender clause no. & Page	Clause 8.15.2	Page 23
	Tender clause statement	During the installation and acceptance of network items, adequate number of engineers (for 24x7x365days support) .....complaints of remote sites and will coordinate to resolve them in stipulated time.	
	Queries sought (in	It is requested that ERNET India to keep the manpower requirement as a separate line item	

	brief)	in the Bill of Material since it comes under service tax purview. Providing a service under the guise of hardware is against the service tax rules.	
	ERNET India's response	In case, the bidders want to quote for it separately, the same may be quoted by the bidders as a separate line item (s) at Annexure-IV. The cost quoted by the bidders shall be taken for L-1 (lowest bid) evaluation.	
13.	Tender clause no. & Page	Clause 12	Page 24 to 25
	Tender clause statement	**Payment Terms**	
	Queries sought (in brief)	⇨ Requested to consider advance payment towards onsite CAMC against 100% BG of equal amount for the period of 3 months. ⇨ Please amend payment terms as "80% payment after delivery of equipment and 20% to be paid after acceptance". ⇨ For inter- state billing WCT deduction is not possible to settled by the bidder or buyer. Hence WCT should not be part of TDS. ⇨ Requested that any additional cost due to increase in govt taxes, will be absorbed by ERNET. ⇨ Request to release the 100% payment against PBG submission to support Indian suppliers too since 100% payment against LC is already there for imported items. It is suggested to keep the same terms with imported as well as indigenous items. As Govt is also encouraging Make In India, so Indigenous products should not be at any disadvantage.	
	ERNET India's response	⇨ Regarding change in Govt taxes, it is clarified above at Sr.1 of this table. ⇨ Modified Tender clause statement is given below:	
	Modified Tender clause statement	**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 (BG-2) 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 BGs (BG-1) as mentioned under **Clause 16 of Section-B and** as per the tender conditions. On the request of bidder, ERNET India shall also consider to release 30% of cost of equipments after delivery of items subject to the submission of BG of total cost of equipment/items value valid for a period of 3 months (the same shall be extended by the bidder till the successful acceptance of equipments). The bidder shall submit all documents related to delivery of items at site (s). **(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. Note: Payment will be subject to TDS and /or WCT, applicable as per Government norms.	

Section-E

14.	Tender clause no. & Page	Clause 2	Page 28
	Tender clause statement	Bidder must have supplied, installed, maintained and operationalised at least 100 DVB-S2 ACM, CCM/MFTDMA type VSATs and 10 normal SCPC type VSATs in the country of the same type.	

		Bidder must have experience of Hub operations, Hub maintenance and remote VSAT maintenance of at least one DVB-S2 ACM, CCM/MFTDMA type of VSAT Network in the country of the same type. The Bidder must be engaged in providing above mentioned continuously at least from last one year.	
	Queries sought (in brief)	Requested that this clause as "The Bidder must be engaged in providing above mentioned continuously at least from last six month."	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	Bidder must have supplied, installed, maintained and operationalised at least 100 DVB-S2 ACM, CCM/MFTDMA type VSATs and 10 normal SCPC type VSATs in the country. Bidder must have experience of Hub operations, Hub maintenance and remote VSAT maintenance of at least one DVB-S2 ACM, CCM/MFTDMA type of VSAT Network in the country. The Bidder must be engaged in providing above mentioned continuously at least from last one year.	
15.	Tender clause no. & Page	Clause 5	Page 28 to 29
	Tender clause statement	A list of purchasers of DVB-S2 ACM, CCM /MFTDMA type VSATs, normal SCPC type VSATs and ……partners in the last three years along with quantity must be enclosed. The list must show at supply of at least 500 DVB-S2 ACM, CCM /MFTDMA type ……in support (mandatory). If this is not provided, the bid stands disqualified.	
	Queries sought (in brief)	Suggested with following change: A list of purchasers of DVB-S2 ACM, CCM /MFTDMA type VSATs, normal SCPC type VSATs and High capacity type VSATs (of the same type which are quoted against this tender) through the Bidder as well as through its OEM or its channel partners in the last three years along with quantity must be enclosed. The list must show at supply of at least 500 DVB-S2 ACM, CCM /MFTDMA type VSATs; 10 normal SCPC types of VSATs and 10 high capacity type VSATs (of the similar type which are quoted against this tender) in the last three years with documentary proof in support (mandatory). If this is not provided, the bid stands disqualified."	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	A list of purchasers of DVB-S2 ACM, CCM /MFTDMA type VSATs, normal SCPC type VSATs and High capacity type VSATs (of the same type which are quoted against this tender) through the Bidder or through its OEM or its channel partners in the last three years along with quantity must be enclosed. The list must show supply of at least 500 DVB-S2 ACM, CCM /MFTDMA type VSATs; 10 normal SCPC types of VSATs and 10 high capacity type VSATs (of the same type which are quoted against this tender) in the last three years with documentary proof in support (mandatory). If this is not provided, the bid stands disqualified.	
16.	Tender clause no. & Page	Clause 6	Page 29
	Tender clause statement	The annual turnover of the Bidder for the last three years should be a minimum of Rs. 100 Crore from Indian Operations (in each year).	
	Queries sought (in brief)	Requested to amend the annual turnover for last three years to be minimum 50 Crore from Indian operations (in each year) for better participation.	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified clause	The average annual turnover of the Bidder for the last three years should be a minimum of Rs. 70 Crore from Indian Operations (i.e. total of 3 years divided by 3).	

Section-F

17.	Tender clause no. & Page	4th Paragraph of Clause 6.2	Page 36
	Tender clause statement	The bidder shall coordinate..... ..... applicable within the scope of this tender.	
	Queries sought (in brief)	If there is any statutory reason for the delay or any other reason for delay due to internal operation of DoT, then bidder should not be penalised because bidder's scope is to co-ordinate with DoT. Please issue necessary amendments stating that we will not be penalised for any delay which is beyond bidder's control.	
	ERNET India's response	Please refer clause 23 of Section-B in this regard which explains the query. Thus, no change in the statement/clause.	
18.	Tender clause no. & Page	Clause 1 of 6.3	Page 36
	Tender clause statement	**For Hub (Central site at Bangalore)** The Bidder shall ensure that entire Hub side items (all hardware, software, cables, connectors, antenna, converters, etc) (for the full functioning of remote VSATs) should always be in good working and functional conditions meeting SLA and tender conditions. ▪ **Network Availability:** - VSAT Hub = 99.9% (averaged on quarterly basis) ▪ **Maximum Time To Repair /Replace (MTTR):** - VSAT Hub = Maximum of six (6) hour from the time of reporting of fault.	
	Queries sought (in brief)	Requested to amend the MTTR as 14 days since most of the equipments are old and mobilisation and suitable fitment takes time and also repair/replacement of items will take time.	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	**For Hub (Central site at Bangalore)** The Bidder shall ensure that entire Hub side items (all hardware, software, cables, connectors, antenna, converters, etc) (for the full functioning of remote VSATs) should always be in good working and functional conditions meeting SLA and tender conditions. ▪ **Network Availability:** - VSAT Hub = 99.9% (averaged on quarterly basis) ▪ **Maximum Time To Repair /Replace (MTTR):** - VSAT Hub = Maximum of 48 hours from the time of reporting of fault. Other terms shall be as per SLA given at Annexure-VIII.	
19.	Tender clause no. & Page	Clause 3 of 6.3	Page 37
	Tender clause statement	**For high capacity SCPC VSATs Network** The bidder would ensure the state-of-the art technology and network design and guarantee fulfillment of the following performance parameters during the warranty and subsequent AMC periods: ▪ SCPC VSAT link availability = 99.5% (averaged on quarterly basis) ▪ Maximum Time To Repair (MTTR) SCPC VSAT link = 04 hours from the time of reporting of fault (using redundant items supplied with VSAT) ▪ Maximum Time To Repair /Replace by same make & model (MTTR/Re) of items of SCPC VSAT link (both hub and remote side) = 24 hours from the time of reporting of fault. ▪ Should also meet all SLA conditions.	
	Queries sought (in brief)	Request to clarify uptime based on City category.	

	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	**For high capacity SCPC VSATs Network** The bidder would ensure the state-of-the art technology and network design and guarantee fulfillment of the following performance parameters during the warranty and subsequent AMC periods: ▪ SCPC VSAT link availability = 99.5% (averaged on quarterly basis) ▪ Maximum Time To Repair (MTTR) SCPC VSAT link = 05 hours from the time of reporting of fault (using redundant items supplied with VSAT) ▪ Maximum Time To Repair /Replace by same make & model (MTTR/Re) of items of SCPC VSAT link (both hub and remote side) = 48 hours from the time of reporting of fault. ▪ Should also meet all SLA conditions. Note: Please note that sites are located at Port Blair, Kavaratti.	

Annexure II-A

20.	Tender clause no. & Page	Clause 1 of 3.0 (of Table)		Page 46
	Tender clause statement	**Outgoing Stream**		
		Data Rate:	Capable from 1.5Msps to 35Msps or higher (insteps of 300ksps or less)	
	Queries sought (in brief)	Request ERNET to kindly amend it as 500 Ksps		
	ERNET India's response	Modified Tender clause statement is given below:		
	Modified Tender clause statement	**Outgoing Stream**		
		Data Rate:	Capable from 1.5Msps to 35Msps or higher (insteps of 500ksps or less)	
21.	Tender clause no. & Page	Clause 2 of 3.0 (of Table)		Page 46 & 48
	Tender clause statement	**Incoming Stream**		
		Data rate for Single inbound:	From 128Ksps to 2.5Msps or higher (in different steps, at least 4 different sizes upto 2.5Msps) Note: Size of one inbound shall also support and configurable with 2Watts BUC at VSAT, QPSK 2/3, 1.8M VSAT antenna with linear polarisation, INSAT-3C C-band parameter as per latest TEC/IR, location A&N, Lakshadweep and N-E states	
		Roll off factor:	1.2 or better (20% or better)	
	Queries sought (in brief)	⇨ Request to kindly amend Data rate of single inbound as 256 Ksps to 6 Msps. ⇨ Request ERNET to kindly amend Roll off factor as 25%		
	ERNET India's response	Modified Tender clause statement is given below:		
	Modified Tender clause statement	**Incoming Stream**		
		Data rate for Single inbound:	From 256Ksps to 2.5Msps or higher (in different steps, at least 4 different sizes upto 2.5Msps) Note: Size of one inbound shall also support and configurable with 2Watts BUC at VSAT, QPSK 2/3, 1.8M VSAT antenna with linear polarisation, INSAT-3C C-band parameter as per latest TEC/IR, location A&N, Lakshadweep and N-E states. If it is not supported, all penalties on the bidder shall be applicable.	
		Roll off factor:	1.25 or better (25% or better)	
22.	Tender clause no. & Page	2nd Table of Clause 3.0		Page 48 & 49
	Tender clause statement	***C-Band to L-Band converter specs are as below:** (Note: Other converts …….equivalent specs)		

		Input Parameters	Input Frequency …….. …….Input connector : N, Female
		Output Parameters	Output Frequency…… ……..Output connector : N, Female
		Other Parameters	Gain : 35 dB ±2dB …….. …….Voltage : 220±10VAC, 50Hz
		Others	Inclusive of all cables, connectors, monitoring connectors, etc -If system is chassis based, it shall have two slots.
	Queries sought (in brief)	Request for the following changes ⇨ Input Parameters: Input connector: N or SMA, Female ⇨ Output Parameters: Output Frequency: 950 – 1450MHz (500MHz BW) as input Frequency is 3.7-4.3GHz(500MHz BW) ⇨ Other Parameters: Gain : 35 dB ±3dB	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	***C-Band to L-Band converter specs are as below:** (Note: Other converts if required and supplied by bidder shall also be of same make and equivalent specs)	
		Input Parameters	Input Frequency : 3.7 to 4.2GHz Input Impedance : 50Ω VSWR <2:1 Input connector : N or SMA, Female (but the bidder shall ensure its proper integration with other Hub items)
		Output Parameters	Output Frequency : 950 – 1450MHz Impedance : 50Ω VSWR <2:1 Output Power @P1dB : +15dBm minimum Output connector : N, Female
		Other Parameters	Gain : 35 dB ±3dB or better Spurious, In Band < -60dBc, 0 dBm out; < -60 dBm, signal independent Spurious, Out of Band < -50dBc Inter modulation < -55dBc for two carriers at -10dBm out Frequency Response : ±1.5 dB, over frequency band; ±0.5 dB, 40 MHz BW Frequency sense : Inverting Frequency accuracy : ±0.01 ppm max over temp internal reference; ext. ref. input 10MHz In/out level :3dBm ± 3 dB Noise Figure : 15 dB at minimum attenuation Phase Noise : @1KHz <-75dBc/Hz @10KHz < -85dBc/Hz @100KHz < -95dBc/Hz @1MHz < -105dBc/Hz Voltage : 220±10VAC, 50Hz
		Others	Inclusive of all cables, connectors, monitoring connectors, etc -If system is chassis based, it shall have two slots.
23.	Tender clause no. & Page	Clause 4 of 4.2 (of Table)	Page 52
	Tender clause statement	**IDU**	
		RF In Frequency : 950 MHz – 1950 MHz RF Out Frequency : 950 MHz – 1950 MHz	
		Data Port: No. of Ports : 1 Port (minimum) Input data port : Ethernet 10/100 (RJ 45) Data Transport Protocol : TCP/IP, UDP	
		Bit Error Rate: Better than 1x 10^{-7}	
		Inbound data rate: Supplied IDU shall be capable to handle minimum 2Mbps Tx data rate	
		Outbound data rate: Supplied IDU shall be capable for minimum 40Mbps (Rx) download	

		data rate to remote VSAT
		Transmit mechanism: MF-TDMA
		Operating Voltage: 100V - 220V AC, 50Hz Relative humidity: 90%
		IDU should be guaranteed to support at least or more than 10,000 numbers of packets per second (pps).
		IP features: RIP, DHCP,NAT/PAT, IGMP, IP Prioritization, VLAN, DiffServ, SIP, IPv4 and IPv6, Static routing, IP multicast, UDP broadcast support Security: IPSec (end to end), ACL Firewall
		Mechanical / Environmental /General condition: -Small in size & weight & single box -Operating temperature: 0 degree to +50 degree C -Relative humidity: upto 90% -Indian Power cable
	Queries sought (in brief)	It is with respect to Outbound data rate: ⇨ The VSAT download speed is licensed-based on data rate size. Thus, initially license for 10Mbps data rate for VSAT IDU may be taken and later license for higher data rate upto 40Mbps may be purchased on requirement. It is with respect to IP features: ⇨ IP Multicast is better and more elegant way to transmit data to a group and selected sites (all the sites) as it is "managed & controlled" and more secure, only the allowed VSATs are able to receive the multicast. Broadcast is achieved by multicast traffic to all remote stations. Thus, requested to remove the ""UDP Broadcast Support"" from the requirement."
	ERNET India's response	Modified Tender clause statement is given below:
	Modified Tender clause statement	**IDU**
		RF In Frequency : 950 MHz – 1950 MHz RF Out Frequency : 950 MHz – 1950 MHz
		Data Port: No. of Ports : 1 Port (minimum) Input data port : Ethernet 10/100 (RJ 45) Data Transport Protocol : TCP/IP, UDP
		Bit Error Rate: Better than 1x 10^{-7}
		Inbound data rate: Supplied IDU shall be capable to handle minimum 2Mbps Tx data rate
		Outbound data rate: Supplied IDU shall be capable for minimum 40Mbps (Rx) download data rate to remote VSAT
		Transmit mechanism: MF-TDMA
		Operating Voltage: 100V - 220V AC, 50Hz Relative humidity: 90%
		IDU should be guaranteed to support at least or more than 10,000 numbers of packets per second (pps).
		IP features: RIP, DHCP,NAT/PAT, IGMP, IP Prioritization, VLAN, DiffServ, SIP, IPv4 and IPv6, Static routing, IP multicast Security: IPSec (end to end), ACL Firewall
		Mechanical / Environmental /General condition: -Small in size & weight & single box -Operating temperature: 0 degree to +50 degree C -Relative humidity: upto 90% -Indian Power cable
24.	Tender clause no. & Page	Clause (i) of 6.0 | Page 53 & 54
	Tender clause statement	**For DVB-S2 ACM, CCM/MF-TDMA network** ▪ For one inbound channel traffic to Hub: 256 Kbps Inbound channel (assume 2Watts BUC at VSAT) ▪ For outbound channel traffic to Remote VSATs: 20Mbps outbound channel Link engineering for the following shall also be provided:

		▪ 1 Outbound channel with 36MHz Transponder in saturation ▪ 512kbps Inbound channel size ▪ One Inbound channel with 512KHz ▪ Maximum size of one Inbound channel with 2Watts BUC, 3Watts and 5Watts BUC **Note:** 1. Take Hub antenna 9.2 M at Bangalore; VSAT antenna of 1.8 M with linear polarization; INSAT-3C, C-band parameters as per latest TEC/IR document of DoT; Rain fade margin; VSAT site location of A&N, Lakshadweep and N-E states. 2. For Outbound channel, take QPSK Modulation and FEC as 3/4 (or worse) 3. For Inbound channel, take QPSK Modulation and FEC as 2/3 (or worse). 4. For VSAT sites located in A&N, Lakshadweep and N-E, 2.4M antenna may be assumed.
	Queries sought (in brief)	⇨ The inbound channel rate are generally in pre-defined Symbol Rate values, So request to change this to 512 Ksps in place of 512 KHz. ⇨ In point no. 1, it is asked to consider 1.8m antenna with VSAT location as A&N, Lakshadweep and N-E, while in point no. 4 it has been asked to consider 2.4m VSAT antenna for the same locations. Thus, please clarify on the VSAT antenna and location to be consider for the Link Budget calculations to be submitted.
	ERNET India's response	Modified Tender clause statement is given below:
	Modified Tender clause statement	**For DVB-S2 ACM, CCM/MF-TDMA network** ▪ For one inbound channel traffic to Hub: 256 Kbps Inbound channel (assume 2Watts BUC at VSAT) ▪ For outbound channel traffic to Remote VSATs: 20Mbps outbound channel Link engineering for the following shall also be provided: ▪ 1 Outbound channel with 36MHz Transponder in saturation ▪ 512kbps Inbound channel size ▪ One Inbound channel with 512 KHz or with that value of KHz which is nearest to 512 KHz. ▪ Maximum size of one Inbound channel with 2Watts BUC, 3Watts and 5Watts BUC (P1dB) **Note:** 1. Take Hub antenna 9.2 M at Bangalore; VSAT antenna of 1.8 M with linear polarization; INSAT-3C, C-band parameters as per latest TEC/IR document of DoT; Rain fade margin; VSAT site location of UP, MP, Punjab, Uttarakhand, Tamilnadu, Gujrat, West Bengal. 2. For Outbound channel, take QPSK Modulation and FEC as 3/4 (or worse) 3. For Inbound channel, take QPSK Modulation and FEC as 2/3 (or worse). 4. The link engineering for VSAT sites located in A&N, Lakshadweep and N-E with 2.4M antenna shall also be provided.
25.	Tender clause no. & Page	Clause 7(1) — Page 54
	Tender clause statement	The bidder shall provide training to 2 officers at the manufacturer location in system design and operation and maintenance of the network. The bidder shall provide training material, documents, etc for this training to the officers. The expenses on travel, boarding & lodging etc. shall be borne by ERNET India. **Its cost shall be quoted in the bid.**
	Queries sought (in brief)	There are several OEMs involved in this project. At which equipment's OEM location to be preferred for the training? Also provide the number of days/hours.
	ERNET India's response	Modified Tender clause statement is given below:
	Modified Tender clause statement	The bidder shall provide one week training to 2 officers at the manufacturer location (i.e. OEM of DVB-S2 ACM baseband) in system design and operation and maintenance of the network. The bidder shall provide training material, documents, etc for this training to the officers. The expenses on travel, boarding & lodging etc. shall be borne by ERNET India. **The cost of training shall be quoted in the bid.**

Annexure-II-B

26.	Tender clause no. & Page	Clause 2 (iv)	Page 55
	Tender clause statement	The downlink (Rx) data rate at each VSAT shall be maximum of 40Mbps and uplink (Tx) data rate from each VSAT shall be maximum of 14Mbps	
	Queries sought (in brief)	As per TEC Document, each remote VSAT can operate of 4.5MHz/8MHz on a 3.8Mtr/4.5Mtr antenna, kindly provide the correct DR as per TEC/DOT doc.	
	ERNET India's response	1. Please refer clause no. (b) of 5.3.1.2 of TEC document no. TEC/IR/SCB-08/03.OCT 2013. 2. In above clause, Data rate limit is 8MHz with 3.8meter C-band antenna size (in case of star network). 3. As per link engineering, 14Mbps of data rate from Remote Tx may be achieved within 8MHz. The bidder shall also see it and TEC document.	
27.	Tender clause no. & Page	Clause 6 (d)	Page 58
	Tender clause statement	For system maintenance, and checking health of equipment .... alarms of the various units/sub assembles/modules.	
	Queries sought (in brief)	Requested to be remove this.	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	For system maintenance, and checking health of equipment and link performance, alarms, controls and monitoring facilities shall be provided. In case of fault and degraded performance, it shall be possible to identify the fault based on alarm & monitoring facilities provided with it.	
28.	Tender clause no. & Page	Clause 1 (a) of 7 (of Table for SCPC Modem)	Page 58
	Tender clause statement	a) **General Specifications**	
		Symbol Rate Range	DVB-S2: 100ksps to 25 Msps in 1 ksps steps
	Queries sought (in brief)	Does the bidder need to enable the modem with 25Msps feature from the date of supply? Please confirm. Also, please clarify if this is Msps or Mbps?	
	ERNET India's response	It is required from day 1. It is symbol rate.	
29.	Tender clause no. & Page	Clause 1 (b) of 7 (of Table for SCPC Modem)	Page 59
	Tender clause statement	b) **Modulator (Dual IF)**	
		L-Band Monitor	Same as L-Band or 900 + 70/140 MHz IF at - 27dBm ± 3 dB
		Quadrature Phase Error and Amplitude Imbalance	Sideband 35 dB below unmodulated carrier
	Queries sought (in brief)	⇨ L-band monitoring is not required, as some OEMs have built-in receive signal level monitoring in the modem. Thereby, it would make L-band monitoring unnecessary depending on what requires to be achieved. Alternatively, an External coupler can be used for monitoring of L –band. (Integrator's responsibility). ⇨ Quadrature Phase Error and Amplitude Imbalance shall be 'Sideband 30 dB below unmodulated carrier'	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	b) **Modulator (Dual IF)**	
		L-Band Monitor	Same as L-Band or 900 + 70/140 MHz IF at - 27dBm ± 3 dB (or) External coupler shall be used for monitoring of L–band and it shall be the bidder's responsibility.

			Quadrature Phase Error and Amplitude Imbalance	Sideband 30 dB or better below unmodulated carrier
30.	Tender clause no. & Page	Clause 1 (d) of 7 (of Table for SCPC Modem)		Page 59
	Tender clause statement	d)	**Basic Unit Connectors**	
			L-Band Monitor	SMA female
			Data Interfaces	2 x RJ-45 10/100/1000Base-T Ethernet -Shall support both IPv4 and IPv6 for their full functionality
	Queries sought (in brief)	⇨ Request to make L-band Monitor connector as an option since it is not a necessary feature and pertains to a certain OEM. ⇨ Regarding support for both IPv4 and IPv6, requested to change to "Shall support IPv4 for their full functionality".		
	ERNET India's response	Modified Tender clause statement is given below:		
	Modified Tender clause statement	d)	Basic Unit Connectors	
			L-Band Monitor	SMA female (it is optional, but the bidder shall ensure that the items quoted shall have all required connectors for integration and VSAT link commissioning and functioning).
			Data Interfaces	2 x RJ-45 10/100/1000Base-T Ethernet -Shall support both IPv4 and IPv6 for their full functionality. (Note: 1. If IPv6 support & feature is not available in any of OEM's existing product which meets the tender specs, only than bidder shall have option to quote the items with IPv4 support & feature of that OEM. 2. Also, in this tender, if any bidder quote the modem supporting both IPv4 & IPv6 (dual) features, than the bidder who has quoted the modem with only IPv4 support, than the bidder shall upgrade the supplied modems with dual IPv4 & IPv6 feature within one year from the rate contract date, otherwise all penalties will be applicable. All types of cost for such upgradation shall be born by the bidder.)
31.	Tender clause no. & Page	Clause 3 (a) of 7 (of Table for BUC-125Watts(P1dB))		Page 60
	Tender clause statement	a)	**General**	It is a single integrated unit with built-in AC power supply.
				The unit has built-in data logging up to 30 days. Vital parameters like Temp , Output power mute status , LNB current etc will be recorded at time stamped interval for system maintainability
				The unit has a phase noise performance which meets or exceeds IESS-308/309 standard
				The unit has at least M&C, Ethernet for monitoring
				The unit has SNMP and web interface login for M&C
				In redundancy operation , faulted online unit may be disconnected and replaced without affecting online power amplifier
				The supports Industry standard FSK communication
				The unit has inherent protection against open/short on the Tx output port by means of an inbuilt Output Isolator present inside the unit.
	Queries sought (in brief)	⇨ Requested to amend as 40 events, alarms only. Parameters like Temp, Output power mute status, LNB current etc will not be recorded in the BUC. However, it can be		

		recorded in the computer through corresponding commands at regular time intervals. ⇨ Requested that FSK feature to be removed. Since we have Ethernet it does not make any sense to have FSK. It does not serve any purpose.			
	ERNET India's response	Modified Tender clause statement is given below:			
	Modified Tender clause statement	a)	**General**	It is a single integrated unit with built-in AC power supply.	
				The unit has built-in data logging up to 30 events or 30 days for alarms. Parameters like Temp, Output power mute status, LNB current etc may be recorded in the computer through commands at regular interval of times for system maintainability or same may be maintained in the BUC itself.	
				The unit has a phase noise performance which meets or exceeds IESS-308/309 standard	
				The unit has at least M&C, Ethernet for monitoring	
				The unit has SNMP and web interface login for M&C	
				In redundancy operation , faulted online unit may be disconnected and replaced without affecting online power amplifier	
				The unit has inherent protection against open/short on the Tx output port by means of an inbuilt Output Isolator present inside the unit.	
32.	Tender clause no. & Page	Clause 3 (b) of 7 (of Table for BUC-125Watts(P1dB))		Page 60	
	Tender clause statement	b)	**RF features**		
			Output Frequency	5850 – 6650 MHz	
			Available power Output @ P1 dB	51 dBm (125 W)	
			Output Connector	CPR137G or suitable	
			Output Return Loss	19.1 dB	
			Gain Linear	70 dB min	
			Adjust	20 dB in 0.5 dB step	
			Gain flatness	+/- 1.5 dB full Band or better	
			Gain variation over temp -40 to +55 Deg C	+/- 1.5 dB or better	
	Queries sought (in brief)	Requested to amend "Output Return Loss as VSWR: 1.3:1			
	ERNET India's response	Modified Tender clause statement is given below:			
	Modified Tender clause statement	b)	**RF features**		
			Output Frequency	5850 – 6650 MHz	
			Available power Output @ P1 dB	51 dBm (125 W)	
			Output Connector	CPR137G or suitable	
			Output Return Loss	19.1 dB / VSWR : 1.3:1	
			Gain Linear	70 dB min	
			Adjust	20 dB in 0.5 dB step	
			Gain flatness	+/- 1.5 dB full Band or better	
			Gain variation over temp -40 to +55 Deg C	+/- 1.5 dB or better	
33.	Tender clause no. & Page	Clause 3 (e) of 7 (of Table for BUC-125Watts(P1dB))		Page 61	
	Tender clause statement	e)	**Internal reference**		
			Freq	10 MHz over range of -5 to +5 dBm	
			Frequency stability	+/- 5 X 10E-10 / day	
	Queries sought (in brief)	Requested to amend Frequency stability as ±2 x10-9/day.			
	ERNET India's response	Modified Tender clause statement is given below:			

	Modified Tender clause statement	e)	**Internal reference**		
			Freq	10 MHz over range of -5 to +5 dBm	
			Frequency stability	±2 x10-9/day or better	
34.	Tender clause no. & Page	Clause 7 of 7 (of Table for 1:1 Redundancy switch for BUC and LNB)		Page 61 & 62	
	Tender clause statement	General		- 1:1 BUC and LNB redundancy switch, suitable for the supplied BUC and LNB for remote site setup - All cables, connectors, splitters/combiners, mounting kits, accessories etc required for their integration and installation	
	Queries sought (in brief)	Is it necessary to supply an external switch for 1:1 configuration if it is inbuilt available with BUC? Please confirm.			
	ERNET India's response	Yes, the bidder needs to quote it. Thus, no change in the clause.			
35.	Tender clause no. & Page	Clause 11(a) & (b) & (g) of 7 (of Table for WAN optimizer at Central site for Asymmetric link)		Page 65 to 67	
	Tender clause statement	a)	Generic Requirement	The equipment should provide TCP (Transmission Control Protocol) acceleration, header compression, data compression, image transformation and dynamic content caching to achieve optimization	
				It should work in both Bridge and Routed mode	
				It should provide payload compression, packet aggregation, TCP acceleration and object caching.	
				VOIP traffic should undergo header compression	
				It should provide few levels (2 or more) of settable hierarchical QoS.	
				It should work in a point to point topology.	
				It should work with both IPv4 and IPv6 and mixed environment.	
		b)	Functional & Technical Requirement	The equipment should provide the following features: ▪ Lossless compression of HTTP traffic, file attachments, file uploads and downloads ▪ Compression of all HTTP cookies, HTTP header and HTTP get and post in both directions ▪ Image reduction and smoothing ▪ Dynamic object and file caching ▪ Dynamic data suppression ▪ Maintain persistent connection between sites.	
				Traffic classification on ingress side	
				Compressed traffic should be aggregated into larger Ethernet packet	
				Packet aggregation should be configurable based upon maximum aggregation time or maximum size of aggregation.	
				Image quality reduction and smoothing should reduce the amount of data required to represent the image, without significantly altering the visual perception of the image.	
				The equipment should have user configurable setting to select between quality of image and size	
				The equipment should have static caching abilities.	
				The equipment should also support intelligent cache differencing	
				The equipment should support data de-duplication	
				The equipment should support IEEE 802.1Q (VLAN) traffic.	
				The equipment should support adding/deletion of IEEE802.1q VLAN tag.	
				The equipment should support flow control in compliance with IEEE802.3x.	
				The equipment should support source IP preservation.	
				The equipment should support at least 10,000 accelerated session (connections)	
				The equipment should have minimum 12GB RAM.	
				The equipment should be 19" rack mountable	

				The equipment should have a minimum 1TB of Hard disk capacity
				The equipment should provide "fail to wire" capability with at least one pair of bypass port.
				The fail to wire should trigger under two conditions, a) active flow exceeds max configured, b) loss of power/box failure
				The equipment should also provide the feature of 1+1 system level redundancy.
				The equipment should support traffic classification on the basis of the following: ▪ IP Subnet ▪ VLAN tag ▪ Port
				The equipment should be able to support Strict Priority(SP) queue and Stochastic Fair weighted queue(SFW) at the egreee WAN interface
				It should provide a throughput of 60Mbps (this equipment will be installed at central site with asymmetric link).
				It should provide at least 350,000 PPS
		g)	Others	Installation, commissioning and integration of the system with the existing setup of ERNET India Hub and/or at ERNET India user sites.
				All cables, connectors, etc to install and commission the equipment shall be included.
	Queries sought (in brief)	Request to either remove it or make it an optional feature or more generic.		
	ERNET India's response	Modified Tender clause statement is given below:		
	Modified Tender clause statement	a)	General requirement	The equipment should provide TCP (Transmission Control Protocol) acceleration, header compression, data compression, image transformation and dynamic content caching to achieve optimization
				It should work in both Bridge and Routed mode
				It should provide payload compression, packet aggregation, TCP acceleration and object caching.
				It should provide few levels (2 or more) of settable hierarchical QoS.
				It should work in a point to point topology.
				It should work with both IPv4 and IPv6 and mixed environment.
		b)	Functional & Technical Requirement	The equipment should provide the following features: ▪ Lossless compression of HTTP traffic, file attachments, file uploads and downloads ▪ Compression of all HTTP cookies, HTTP header and HTTP get and post in both directions ▪ Image reduction and smoothing ▪ Dynamic object and file caching ▪ Dynamic data suppression ▪ Maintain persistent connection between sites.
				Traffic classification on ingress side
				Compressed traffic should be aggregated into larger Ethernet packet
				Packet aggregation should be configurable based upon maximum aggregation time or maximum size of aggregation.
				Image quality reduction and smoothing should reduce the amount of data required to represent the image, without significantly altering the visual perception of the image.
				The equipment should have user configurable setting to select between quality of image and size
				The equipment should have static caching abilities.
				The equipment should also support intelligent cache differencing
				The equipment should support data de-duplication

				The equipment should support IEEE 802.1Q (VLAN) traffic.
				The equipment should support adding/deletion of IEEE802.1q VLAN tag.
				The equipment should support flow control in compliance with IEEE802.3x.
				The equipment should support source IP preservation.
				The equipment should support at least 10,000 accelerated session (connections)
				The equipment should have minimum 12GB RAM.
				The equipment should be 19" rack mountable
				The equipment should have a minimum 1TB of Hard disk (or better type) capacity
				The equipment should provide "fail to wire" capability with at least one pair of bypass port.
				The fail to wire should trigger under two conditions, a) active flow exceeds max configured, b) loss of power/box failure
				The equipment should also provide the feature of 1+1 redundancy.
				The equipment should support traffic classification on the basis of the following: ▪ IP Subnet ▪ VLAN tag ▪ Port
				It should provide a throughput of 60Mbps (this equipment will be installed at central site with asymmetric link).
				It should provide at least 350,000 PPS
		g)	Others	Installation, commissioning and integration of the system with the existing setup of ERNET India Hub and/or at ERNET India user sites.
				All cables, connectors, etc to install and commission the equipment shall be included.

Annexure-II-C

36.	Tender clause no. & Page	Clause 1(a) & (b) of 5 (of Table for SCPC Modem: L-Band (For VSAT terminal side))		Page 70 & 71
	Tender clause statement	a)	General Specifications	
			FEC	Viterbi/ Trellis Coded Modulation (TCM)/ Reed-Solomon (RS)/ Turbo Product Code (TPC)
			Input /Output Data Interfaces	Serial Port for connectivity with router (as per router specs which are given in this tender) 10/100Base-T Ethernet (optional) IPv4 and IPv6 dual stack full functionality support
		b)	Modulator	
			Output power	Tx output power range of 25dB, in 0.1dB steps
	Queries sought (in brief)	For FEC: ⇨ LDPC may be considered instead of TPC, sine LDPC is more efficient. For Input/ Output Data Interfaces ⇨ Router port is not mentioned, whether V.35 or else. Whether a Winchester pig tail is to be provided with Modem to be clarified. ⇨ Regarding support for both IPv4 and IPv6, requested this to be changed to "IPv4 full functionality support" For Modulator: Output Power ⇨ Tx output power range mentioned as “25dB,.in 0.1dB steps” Should be mentioned as “- 25dB, in 0.1dB steps” which is the standard followed by most of the		

		OEMs."		
	ERNET India's response	Modified Tender clause statement is given below:		
	Modified Tender clause statement	a)	General Specifications	
			FEC	Viterbi/ Trellis Coded Modulation (TCM)/ Reed-Solomon (RS)/ Turbo Product Code (TPC) / LDPC
			Input /Output Data Interfaces	Serial Port for connectivity with router (as per router which is quoted by the bidder in this tender) or suitable port which shall connect to the router quoted in this tender. 10/100Base-T Ethernet (optional) IPv4 and IPv6 dual stack full functionality support (Note: 1. If IPv6 support & feature is not available in any of OEM's existing product which meets the tender specs, only than bidder shall have option to quote the items with IPv4 support & feature of that OEM. 2. Also, in this tender, if any bidder quote the modem supporting both IPv4 & IPv6 (dual) features, than the bidder who has quoted the modem with only IPv4 support, than the bidder shall upgrade the supplied modems with dual IPv4 & IPv6 feature within one year from the rate contract date, otherwise all penalties will be applicable. All types of cost for such upgradation shall be born by the bidder.)
		b)	Modulator	
			Output power	Tx output power range of -25dB, in 0.1dB steps
37.	Tender clause no. & Page	Clause 2(a) & (b) of 5 (of Table for SCPC Modem: IF-Band (for Hub side))		Page 72
	Tender clause statement	a)	General Specifications:	
			Input /Output Data Interfaces	Serial Port for connectivity with router (as per router specs which are given in this tender) 10/100Base-T Ethernet (optional) IPv4 and IPv6 dual stack full functionality support
		b)	Modulator	
			Output power	Tx output power range of 25dB, in 0.1dB steps
	Queries sought (in brief)	For Input/ Output Data Interfaces ⇨ Regarding support for both IPv4 and IPv6, requested this to be changed to "IPv4 full functionality support" For Modulator: Output power ⇨ Tx output power range mentioned as "25dB,in 0.1dB steps" Should be mentioned as "- 25dB, in 0.1dB steps" which is the standard followed by most of the OEMs.		
	ERNET India's response	Modified Tender clause statement is given below:		
	Modified Tender clause statement	a)	General Specifications:	
			Input /Output Data Interfaces	Serial Port for connectivity with router (suitable port which shall get integrated with the router) 10/100Base-T Ethernet (optional) IPv4 and IPv6 dual stack full functionality support (Note: 1. If IPv6 support & feature is not available in any of OEM's existing product which meets the

				tender specs, only than bidder shall have option to quote the items with IPv4 support & feature of that OEM. 2. Also, in this tender, if any bidder quote the modem supporting both IPv4 & IPv6 (dual) features, than the bidder who has quoted the modem with only IPv4 support, than the bidder shall upgrade the supplied modems with dual IPv4 & IPv6 feature within one year from the rate contract date, otherwise all penalties will be applicable. All types of cost for such upgradation shall be born by the bidder.)
		b)	Modulator	
			Output power	Tx output power range of -25dB, in 0.1dB steps
38.	Tender clause no. & Page	Clause 3 of 5 (of Table for NMS: Network (SCPC VSAT links) Management system		Page 73
	Tender clause statement	General features		The SCPC VSAT links Management system shall provide the following from day-1 in star topology: ▪ The system shall be capable for Dynamic SCPC carrier allocation & true bandwidth on demand on both transmit and receive channels. ▪ The system shall support at least 30 SCPC VSAT links. ▪ The system shall be capable for to implement User defined policies for upstream carrier switching. Policies can be configured for a variety of applications such as VoIP or video or based on load or via schedule or type of service or QoS rules like IP Port/IP address/protocol type. The policies can be individually enabled on a per-remote basis, or globally enabled. The operators are able to set minimum and maximum data rates for each remote. ▪ The system shall provide guaranteed bandwidth capability. ▪ The system shall provide sharing of BW when needed between modems and switch automatically to a dedicated SCPC channel. ▪ With the growth of the network, the system shall provide more and more advantage in bandwidth saving by implementing bandwidth on-demand in the network.
		Optional		▪ The SCPC VSAT links Management system (NMS) shall support above features in MESH topology. The bidder shall provide the technical documentation in the bid. But it's price need not to be quoted. ▪ The system shall be expandable to support more than 30 SCPC VSAT links.
	Queries sought (in brief)	For General features: ⇨ The features mentioned are available only with Ethernet interface and Ethernet interface itself is optional as per 1 &2. ⇨ Is this feature required from Day1 in NMS? For Optional: ⇨ Requested to delete Mesh optional feature. In the absence of exact mesh requirements, it is an open feature.		
	ERNET India's response	⇨ At the time of NMS purchase, optional feature of modem (i.e. Ethernet interface) will be used / purchased. All features are required from day-1. Optional feature is self explanatory. ⇨ Thus, no change in any clause/statement		
39.	Tender clause no. & Page	Clause 3 of 5 (of Table for NMS: Network (SCPC VSAT links) Management system		Page 73

	Tender clause statement	Other features	▪ The system shall latest and state-of-the-network features. It shall ensure on line monitoring and management of the network resources to achieve the desired performance. ▪ The entire NMS system shall be supplied in standard 19" racks to form complete network system. The system shall include all the necessary items (H/w and S/w) required for the network management. All interconnecting cables, connectors, interfaces, etc required to connect the equipment shall be supplied. ▪ Shall support both IP4 and IPv6 protocols for their full functionality.
	Queries sought (in brief)	Regarding support for both IPv4 and IPv6, requested that this to be changed to "Shall support IPv4 protocol for their full functionality"	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	Other features	▪ The system shall latest and state-of-the-network features. It shall ensure on line monitoring and management of the network resources to achieve the desired performance. ▪ The entire NMS system shall be supplied in standard 19" racks to form complete network system. The system shall include all the necessary items (H/w and S/w) required for the network management. All interconnecting cables, connectors, interfaces, etc required to connect the equipment shall be supplied. ▪ Shall support both IP4 and IPv6 protocols for their full functionality. (Note: 1. If IPv6 support & feature is not available in any of OEM's existing product which meets the tender specs, only than bidder shall have option to quote the items with IPv4 support & feature of that OEM. 2. Also, in this tender, if any bidder quote the modem supporting both IPv4 & IPv6 (dual) features, than the bidder who has quoted the modem with only IPv4 support, than the bidder shall upgrade the supplied modems with dual IPv4 & IPv6 feature within one year from the rate contract date, otherwise all penalties will be applicable. All types of cost for such upgradation shall be born by the bidder.)
40.	Tender clause no. & Page	Clause 4 of 5 (of Table for C-band BUC - 5Watts or 10 Watts specifications)	Page 74
	Tender clause statement	Environmental	▪ Operating temperature : -20ºC to + 60ºC ▪ Relative Humidity : up to 100% ▪ Weather Protection sealed to IP65 ▪ Operating Voltage : +15VDC to +60VDC ▪ Power Supply Interface : Common input via IFL ▪ Size & weight: Small in size and low in weight ▪ Easy to install at antenna. ▪ It is a single integrated unit with built-in AC power supply. ▪ All cables and connectors shall be included for its integration and installation to establish SCPC VSAT link
	Queries sought (in brief)	⇨ Requested to change as "Operating Voltage : +18VDC to +60VDC" since this is dependent upon individual product design. ⇨ Requested to changed as "It is a single integrated unit with built-in AC or DC power supply."	
	ERNET India's	Modified Tender clause statement is given below:	

	response	Environmental	▪ Operating temperature : -20ºC to + 60ºC ▪ Relative Humidity : up to 100% ▪ Weather Protection sealed to IP65 ▪ Operating Voltage : +15/18VDC to +60VDC ▪ Power Supply Interface : Common input via IFL ▪ Size & weight: Small in size and low in weight ▪ Easy to install at antenna. ▪ It is a single integrated unit with built-in AC or DC power supply. ▪ All cables and connectors shall be included for its integration and installation to establish SCPC VSAT link

Annexure-II-D

41.	Tender clause no. & Page	Clause 6 (of Table for Down converter)	Page 79 & 80
	Tender clause statement	Frequency step size	1 kHz
	Queries sought (in brief)	1KHz is not required for most applications. 125KHz step size is the standard for all communication requirements. 1KHz step will make the converter more expensive due to synthesiser cost. Requested to change to 125 KHz.	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	Frequency step size	125 kHz
42.	Tender clause no. & Page	Clause 7 (of Table for Up converter)	Page 80
	Tender clause statement	Spurious	-80 dBm @ 0 dBm output (Non carrier related) -65 dBc @ 0 dBm output (carrier related)
		Frequency Step Size	1KHz
	Queries sought (in brief)	⇨ Spurious may be changed to -60 dBc @ 0 dBm output (carrier related) or better which is a reasonable specification for Up converter ⇨ 1KHz is not required for most applications. 125KHz step size is the standard for all communication requirements. 1KHz step will make the converter more expensive due to synthesiser cost. Requested to change to 125 KHz.	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	Spurious	-80 dBm @ 0 dBm output (Non carrier related) -60 dBc @ 0 dBm output (carrier related) or better
		Frequency Step Size	125 KHz

Annexure-III

43.	Tender clause no. & Page	Sr. 6 of Table	Page 81
	Tender clause statement	Delivery of imported and indigenous remote VSAT site 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).	
	Queries sought (in brief)	Do bidder need to deliver hardware 1st to ERNET India warehouse in Delhi? Can we have keep the inventory in multiple warehouse in India based on ERNET's locations? Please specify.	
	ERNET India's response	The bidder shall keep all inventories at his warehouse in NCR (Delhi).	

Annexure-IV

44.	Tender clause no. & Page	Annexure-IV-A & B at page 91 &92
	Queries sought (in brief)	⇨ We understand that all type of taxes and duties shall be considered in the Grand total for the declaration of L1 bid. Please confirm.
	ERNET India's response	Yes, all types of taxes and duties shall be considered in the Grand total for the declaration of L1 bid.
45.	Tender clause no. & Page	Heading at Annexure-IV-B at page 92
	Tender clause statement	ANNEXURE - IV B (For Local Equipment in Rupees)
	Queries sought (in brief)	Since items quoted in INR will not necessarily by Local Equipment, thus requested to change it to "Items quoted in INR"
	ERNET India's response	The modified statement is as below:
	Modified Tender clause statement	ANNEXURE - IV B (For Items quoted in INR(Rupees))

Annexure-VII

46.	Tender clause no. & Page	Sr 3.2 of Table	Page 99
	Tender clause statement	"Number of support offices only w.r.t. VSAT business (Please attach enclosure for furnishing full information)"	
	Queries sought (in brief)	Requested to allow support offices, supporting the overall business of the bidder and not only the VSAT business. Also , please allow third party manpower as field operations are handled by third party manpower. However, the responsibility lies with the bidder.	
	ERNET India's response	Please see Clause 3 of Section-E and 2nd para after clause 12 of Section-E which is self explanatory in this regard. However, it is again clarified that the bidder may use third party manpower as field operations/support, but bidder shall be solely responsible for all the deliverables from these subcontractors and under no circumstance shall transfer the subcontractor's liabilities to ERNET India.	
47.	Tender clause no. & Page	Sr 6.1 of Table	Page 100
	Tender clause statement	⇨ Column 'Turnover from VSAT related field' And ⇨ Column ' Total Turnover of the bidder'	
	Queries sought (in brief)	Requested to remove the Column 'Turnover from VSAT related field'	
	ERNET India's response	Modified Tender clause statement is given below:	
	Modified Tender clause statement	⇨ Column 'Turnover from VSAT related field' has been removed. And ⇨ Column ' Total Turnover of the bidder' has been replaced with Total Turnover of the bidder from Indian operations'	

Annexure-VIII

48.	Tender clause no. & Page	Sr 1.0	Page 101
	Tender clause statement	**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:	

		Hub Uptime (HU) in % = ((Hub $_{POT}$ – Hub $_{DT}$) / Hub $_{POT}$)*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 India. 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 12 hours. In case of its non-replacement of the equipment within 12 hours, the bidder shall pay penalty of Rs. 10,000/- for that day. If bidder is unable to repair or replace the faulty equipment at Hub within 24 hours, the bidder shall pay penalty of Rs. 30,000/- per day per equipment to ERNET India subsequently. **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 India 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. 1.4 Hub means all items at Hub including SCPC items/modems.
	Queries sought (in brief)	⇨ Requested to change this clause and link to uptime SLA commitment & also allow replacement/repair can be done within 2 weeks of time. ⇨ Requested to moderate this clause from 10 days to 45 days for invoking BG.
	ERNET India's response	Modified Tender clause statement is given below:
	Modified Tender clause statement	**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: Hub Uptime (HU) in % = ((Hub $_{POT}$ – Hub $_{DT}$) / Hub $_{POT}$)*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 India. 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 48 hours. If bidder is unable to repair or replace the faulty equipment at Hub within 48 hours, the bidder shall pay penalty of Rs. 5,000/- per day per equipment to ERNET India subsequently. But, in case Hub become non-functional due to non-repair or non-replacement of faulty item at Hub, the bidder shall pay penalty of Rs. 30,000/- per day per equipment to ERNET India after 24 hours of the occurrence of the fault in the item(s). **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 India 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. 1.4 Hub means all items at Hub including SCPC items/modems.