

REQUEST FOR PROPOSAL

RFP No NSIL/GS/RFP/2024-02 dated 21-10-24

Rate Contract for Supply, Installation and commissioning of Hub / Gateway station and Satcom VSAT Terminals



NewSpace India Limited (NSIL)
A Govt. of India company under Department of Space, Govt. of India
Brigade Rubix, Watch Factory Road, Yeshwanthpur
Bangalore – 560013, INDIA

Section-1: RFP and Instructions to bidders

1. Introduction

NewSpace India Limited (NSIL), a wholly owned Government of India company under Department of Space (DOS), is the commercial arm of Indian Space Research Organization (ISRO). NSIL as part of its mandate to commercially explore the products and services emanating from Indian Space Programme, is keen to harness the potential of indigenously developed ISRO technology and provide space-based solutions to meet various requirements including the requirements from Govt. and strategic sector related to telecommunication, broadcasting, broadband services, security etc.

Mandate of NSIL includes following space Business activities:

1. Owning Satellites; Building Satellites; Providing Launch Services; Building Launch Vehicles
2. Space Based Services; Satellite Building Through Indian Industry
3. Providing end to end solution in for realizing the satellite based communication network for voice and data / VSAT services and point to point satellite based connectivity services to its users.
4. Technology Transfer to Indian Industry; Marketing spin-off technologies and products/services emanating out of ISRO's activities.

In order to provide end to end solutions in terms of satellite based connectivity / VSAT services, NSIL will be providing required capacity in C/Ku/Ka frequency bands through the transponder available in GSAT class of satellites being own and operated by NSIL. For this the ground segment will be consisting of:

- A. One (or more) hub / gateway stations located within Indian territory and operating in C/Ku/Ka satcom band.
- B. Network of VSAT / user terminals operating in C/Ku/Ka satcom band across different user sites and communicating with hub station.
- C. All other backend infrastructure required for providing end to end connectivity solution.

In view of increasing inquiries received at NSIL for satellite based connectivity using available fleet of GSAT satellites – both current and future operating in different (C/Ku/Ka) frequency bands, NSIL is envisaging to establish proven supply chain with established vendors / solution providers in order to meet connectivity requirements of different users.

This Request for Proposal is for "Supply, Installation and Commissioning of C/Ku/Ka band hub / gateway stations and user VSAT terminals" on rate contract basis (as and when required) as per the specifications described in this document.

2. Instruction to bidders

The tender/bid in response to this RFP is to be submitted in two parts viz., Techno-commercial bid and financial bid in two separate sealed covers super-scribing the enquiry reference number, name of the respective bid and due date. Techno-commercial bid shall cover all technical information and compliance statement, deliverables and delivery schedule and commercial terms and conditions – except pricing details. In case of any price information revealed (either in part or full) in the techno-commercial bid, total bid will get rejected.

The contents of the technical bid shall also be submitted in digital format along with the signed physical copy of the documents in the same envelope as the technical bid. The digital media shall also be super-scribed with the name of the bidding party, the enquiry reference number, and the name of the respective bid.

The RFP consists of three sections as per following:

- Section-1: RFP and Instruction to Bidders
- Section-2: Detailed Scope of work, Deliverables and technical specifications of hub stations and user VSAT terminals
- Section-3: General terms and conditions of contract
- Section-4: Annexures and BG Format

2.1. General Instructions

- A. While every effort has been made to provide comprehensive and accurate background information, requirements and technical details, Bidders must form their own conclusions about the solution(s) needed to meet the requirements of this RFP.
- B. All information supplied by the Bidders as part of their bids in response to this RFP, may be treated as contractually binding on the Bidders, on successful award of the assignment by NSIL based on this RFP.
- C. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written rate contract (RC) has been executed by NSIL. Any notification of preferred bidder status by NSIL shall not give rise to any enforceable rights by the Bidder. NSIL may cancel this RFP at any time prior to a formal written rate contract being executed by the authority.
- D. The bidders are advised to study all instructions, forms, terms, requirements, and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications. Any incomplete bid in any form is liable for rejection.
- E. The Authorized Signatory of the Bidder shall initial all relevant pages of the Technical and the Financial Bids.
- F. The Bidder shall issue a statement undertaking total responsibility for delivery of the components, subsystem, systems and services described in the Detailed Scope of Work

and Technical Specifications (Section-2) of this RFP as per the format mentioned in the Annexure-C (Section-5) of this RFP.

- G. Sealed bids shall be received by the NSIL at the address indicated in the table below before the time and date specified in the schedule of the Bidding Process.

Address for Communication:

Name of the Contact Point:	Dy. Manager, Commercial, NSIL
Postal address for sending the Bids / seeking Clarifications:	NewSpace India Limited (NSIL) 11th Floor, Brigade Rubix, 20, Watch Factory Road, Yeshwanthpur Bangalore 560013.
Contact Details:	Tel: (080) 2322 7777 Ext. 137 E-mail: purchase@nsilindia.co.in

- H. The bid should be prepared and submitted by the Eligible Bidders in English language only.
- I. Schedule of the Bidding Process is as follows:

Document Reference No	NSIL/GS/RFP/2024-02
RFP issue Date	As per CPPP
Pre-bid meeting	
Last date for seeking clarifications	
Last date for bid submission	

- J. NSIL shall not be responsible for any non-receipt/ non-delivery of the documents due to technical snag whatsoever at Bidder's end.
- K. Bid received after due date will not be considered for further evaluation. The bids submitted by fax / e-mail etc. shall not be considered. No correspondence will be entertained on this matter.
- L. NSIL reserves the right to reject in full or part, any or all bids without assigning any reason thereof. NSIL reserves the right to assess the Bidder's capabilities and capacity. The decision of the NSIL shall be final and binding in this regard.
- M. Bid should be free of over writing. All erasures, correction or addition must be clearly written attested by the Authorized Signatory.
- N. If, in the price structure quoted for the required deliverables / services, there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly.
- O. If there is an error in a total corresponding to the addition or subtraction of subtotals in the financial bid, the subtotals shall prevail, and the total shall be corrected.
- P. **Validity of bid:** Bid shall remain valid for a period of 180 days from the bid submission date.

Q. Earnest Money Deposit (EMD):

- EMD of Rs. 5,00,000 (Five Lakh rupees only) shall be made through Bank Guarantee in favour of "NewSpace India Limited".
- No exemption for submitting the EMD will be given to any agency. EMD in any other form will not be entertained.
- For Unsuccessful bidders: The EMD of all unsuccessful eligible bidders would be refunded without interest by Authority on finalization of the bid in all respects by the successful bidder (Selected Party). This would normally happen within 6 months from the date specified for receipt of response to this RFP.
- For the Selected Party: The EMD of the Selected Party would be returned without interest upon submission of Performance Bank Guarantee by the Selected Party.
- In case bid is submitted without the EMD then Authority reserves the right to reject the bid without providing opportunity for any further correspondence to the bidder concerned.
- The EMD may be forfeited in any of the following circumstances:
 - a) If a bidder withdraws its bid during the period of bid validity period as specified in this RFP and as extended by mutual consent of the respective Bidder (s) and the Authority
 - b) In case of a successful bidder, if the Selected Party fails to sign the contract in accordance with this RFP or furnish the Performance Security within the period prescribed thereof in the Agreement
 - c) If the Financial Bid is found to be qualified or conditional
 - d) If the Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in the RFP.
 - e) If the Bidder is otherwise in breach of the terms of this document.

2.2. Vendor / bidder Eligibility Criteria:

- A. The bidder shall be System Integrator (SI) / OEM / any Authorized Agent/Vendor for OEM/SI or an organization/ a limited company, private company or any agency capable of taking up works of such nature and magnitude and shall produce an undertaking from OEM that the bidder is an authorized entity to quote for this tender and will provide support and spares directly to purchaser, if required, for the offered system (major items) and also that the offered system (major items) will be supported by the OEM for the period of minimum 10 years after station commissioning.
- B. The Bidder shall have at least 5 years of experience in installation and commissioning of ground station (of similar nature) for satellite communication. Also, must have necessary expertise for configuration of RF baseband System, Antenna foundation, Civil, Electrical and Environmental infrastructure.
- C. The bidder/OEM shall have successfully performed supply and installation of at-least two nos. of hub stations (operating in C/Ext.-C/Ku/Ka band) of 7-meter or above antenna size **AND** min 10 nos. of VSAT terminals (1.2 / 1.8 / 2.4 meter operating in C/Ext.-C/Ku/Ka band) during last three years. Bidder shall provide the details of purchase orders of the project and its completion certificates with relevant references / contact details of the user agency towards this.

- D. Bidder shall provide details of financial profile of the company, product range, manpower profile, turn-over status and experience in the field of satellite communication ground segment solution along with its techno-commercial bid.

2.3. Withdrawal or / and Modification of Bid by bidder:

1. An Eligible Bidder may withdraw its Bid (technical and/ or financial) by writing to the address indicated for bid submission in the schedule of the bidding process prior to final bid submission date indicated in the schedule of the bidding process.
2. Request for withdrawal of a bids post the bid submission deadline shall normally not be considered, however in case a Bidder still wishes to withdraw a bid post the bid submission deadline, this may lead to disqualification of the Bidder. In addition to this, NSIL reserves right to give the Bidder a tender holiday for specified period decided by NSIL.
3. Bids withdrawn shall not be opened and processed further.

2.4. Bid document cost

The cost of the bid document is Rs. 4000/- (Four Thousand only) + GST (18%).

The cost of the bid document may be paid in the form of Demand Draft in favour of "NewSpace India Limited" payable at "Bangalore". Bid responses without document cost will be rejected outrightly. The Demand Draft should be kept in a separate sealed cover along with Techno-commercial bid.

2.5. Documents required along with Techno-commercial bid:

Sr. No.	Document Requirement	Documentary evidence
1	Payment of Bid document cost	Demand draft along with techno-commercial bid
2	Signed and Stamped Copy of the Bid Documents	Bid Document which is duly signed and stamped by the Authorized Signatory of the bidder.
3	Bidder Profile	A brief profile of the organization, its audited balance sheet for last 3 years, copy of annual tax returns for last 3 years, GST and PAN number, company URL, registered office address and contact information for the authorized person responsible for this project.
4	Work Experience	Bidder shall submit relevant documentary proof for the successful order execution of two hub stations (7.0 meter or above) and 10 VSAT terminals (1.2 meter or above) in last three years.

5	<p>Legal Status of the Bidder</p> <p>The Bidder shall be registered in India under Companies Act, 1956 or as amended.</p> <p>The Bidder shall be in continuous operation in India for a period of at least 5 years as on the date of the issue of RFP.</p>	<p>The Bidder shall submit</p> <ul style="list-style-type: none"> • Copy of company Registration certificate • Copy of PAN card • Copy of GST registration
6	Non-Disclosure Agreement	The Bidder shall submit Non-Disclosure Agreement as per the format indicated in <u>Annexure-G (Section-5)</u> of this RFP signed by Authorized Signatory.
7	Track Record if bidder	An undertaking shall be submitted, duly signed by authorized signatory, stating that there has been or is no outstanding bankruptcy, judgment or pending legal action that could impair operations of the bidder.
8	Integrity Pact	An undertaking shall be submitted, duly signed by authorized signatory, for the Integrity Pact as mentioned in Annexure-F (Section-5) of this RFP.

2.6. Financial bid requirements:

1. The Bidder must submit the Financial Bid to indicate the price as per template provided in the section-2 of this document. The Bidders shall quote prices in INR only. In case of any pricing information not covered in given template, bidder can provide the same in separate table in financial bid.
2. For awarding contract under this RFP, the total price quoted for the specified hub station and VSAT terminals will form the basis of comparison between the eligible bidders.
3. The Bidders shall give the required details of all applicable taxes, duties, other levies and charges including transportation costs, etc. in the financial bid towards realization of hub station / VSAT user terminals.
4. No price escalation by the bidders shall be permitted during initial two years of the rate contract. After two years, the price escalation can be calculated as per following Formula (subject to max. 5% escalation / per year after initial two years):

$$Pr = P * (Lx - Lb) / Lb$$

Where: Pr = Revised cost of the item after escalation

P = Original cost of the item quoted in this RFP

L_x = The current month CPI (*Consumer Price Index*) while issuing the Supply order as mentioned in section 2.10 below in this RFP.

L_b = The CPI for the month of the tender price bid opening + 2 years. (*for e.g. if the tender price bid is opened in Dec. 2024, the CPI shall be considered for Dec. 2026*)

5. In financial bid, if there is a discrepancy between words and figures, the amount in words shall prevail.

2.7. Bid Evaluation Criteria:

Total Bid evaluation process will take place as per following sequence:

1. First will be opening of Techno-commercial bid for bids received before due date in prescribed format. The venue, date and time for opening the Techno-commercial bid will be indicated through emails.
2. The Bids received by the NSIL shall be opened with advance intimation to bidders. Bidder can see the RFP once technical bids are open, on E-tender portal.
3. Techno-commercial evaluation of all the opened bids by NSIL.
4. NSIL may constitute a Tender Evaluation Committee (TEC) to evaluate the Techno-commercial bid of the Bidder. NSIL / Tender Evaluation Committee (TEC) shall evaluate the responses to the RFP and all supporting documents / documentary evidence. Inability to submit requisite supporting documents/documentary evidence by Eligible Bidder may lead to rejection of their bids.
5. During technical evaluation process if NSIL / TEC feels some clarification required from the bidder in order to fully evaluate his bid, the same will be communicated to respective bidder by e-mail. In that case bidder shall provide his reply within stipulated time provided by NSIL in the e-mail.
6. NSIL / TEC shall examine the bids to determine whether they are complete, whether the documents have been properly signed and whether the bids are generally in order. Any bids found to be nonresponsive for any reason or not meeting any criteria specified in the RFP, shall be rejected by NSIL / TEC and shall not be included for further consideration.
7. After successful completion of technical evaluation, all technically qualified bids will be selected for price / financial bid opening. The date and time for opening of the Financial Bid shall be communicated to the Technically qualified Bidder through email.
8. Bidder or its authorised representative may choose to be present at the time of opening of price bid.

2.8. Amendment of the RFP

1. At any time prior to the due date for submission of bid, NSIL may, for any reason, whether at its own initiative or in response to a clarification requested by prospective Eligible Bidder(s), modify the RFP document by amendments. Such amendments shall be published in NSIL Website, in the form of corrigendum and shall form an integral part of RFP

document. The relevant clauses of the RFP document shall be treated as amended accordingly.

2. It shall be the responsibility of the prospective Eligible Bidder(s) to check from time to time for any amendment in the RFP document in NSIL's website. In case of failure to get the amendments, if any, NSIL shall not be held responsible.
3. In order to allow prospective Eligible Bidders a reasonable time to take the amendment into account in preparing their bids, NSIL, at its discretion, may extend the deadline for submission of bids. Such extensions shall be communicated to the Eligible Bidders via update in NSIL's website in the form of corrigendum.

2.9. Confidentiality:

A. All the material / information shared with the Bidder during the course of this procurement process as well as the subsequent resulting engagement following this process with the Bidder, shall be treated as confidential and should not be disclosed in any manner to any unauthorized person under any circumstances. The employees of the Bidder who are proposed to be deployed on the project at specified sites need to furnish a Non-Disclosure Agreement (NDA). The Bidder shall execute and maintain all copies of the Non-Disclosure Agreement (NDA) and shall produce it when sought by NSIL.

2.10. Awarding of Contract and its execution:

- B.
1. NSIL will notify the Selected Party (ies) in writing by e-mail followed by courier, regarding the contract award. In this case party (ies) shall confirm the order acceptance in writing to NSIL within 10 days of receipt of contract from NSIL.
 2. As this RFP is treated as "rate contract" NSIL reserves right to enter into the rate contract with more than one parties on exclusive basis. The main contract will be called as "Frame work Contract".
 3. In case of NSIL opts to enter into parallel contract with more than one bidder. In this case the L2, L3 bidder (for specified hub station / VSAT terminal) may be given change to match the L1 bidder price.
 4. Being a rate contract, the awarding of contract by NSIL does not guaranty ant immediate "supply order". Based on the actual requirement by NSIL, NSIL will issue "supply order" on "as and when required basis" during the tenure of the Frame work Contract.
 5. Vendor needs to provide its acceptance of the supply order within 15 days of the issue of the same. In case of non-receipt of the supply order acceptance by NSIL, it will be treated as "accepted" by the vendor.
 6. For every supply order issued under Frame work Contract, the party shall submit at his own expense unconditional and irrevocable Security deposit (SD) cum Performance Bank Guarantee (PBG) valued at 5% of the Supply Order to NSIL. This SD / PBG shall be submitted within 15 days of reception of supply order from NSIL.

7. The PBG shall be from a Nationalized Bank or a Scheduled Commercial Bank in the format prescribed in Annexure-C of this RFP, payable on demand, for the due performance and fulfilment of the supply order by the party.
8. In case the project is delayed beyond the intended schedule, the performance bank guarantee shall be accordingly be extended by the party till completion of scope of work as mentioned in the section-2 of this RFP.
9. The SD / PBG may be discharged/returned by NSIL upon being satisfied that there has been due performance of the obligations of the bidder under the contract. However, no interest shall be payable on the performance bank guarantee.

Section-2: Detailed technical specification and deliverables

1. Scope work under this RFP:

The work to be carried out under this tender specification shall consist of supply, installation, commissioning and handover of the hub / gateway station in the proposed configuration (Ready to use configuration) and user VSAT terminals as per the supply order at the NSIL specified location in the supply order.

1. Installation & interfacing of the hub ground station subsystems and equipments and integration to be carried out with professional craftsmanship and high-quality accessories.
2. Party shall submit site installation and commissioning report, operation and maintenance manuals, test certificates given by manufacturer, manufacturer's catalogues, original DVD/CD/Pendrive of the software to NSIL.
3. Supply documentation, relevant OEM certificates, performance report of all subsystems and manuals in hard and soft copy form.
4. Party shall provide system engineering calculations along with the proposed hardware for both hub stations and VSAT terminals indicating total compliance of the system specifications, as projected in this RFP / supply order.
5. The responsibility of safe transportation / delivery of equipment, total system to the site rests with the Vendor
6. Comprehensive on-site Warranty of three (03) years to be provided. After the completion of original warranty period NSIL may enter into separate contract with the party for extended warranty / CAMC of minimum two years (or more).
7. Provide 24x7 technical support as and when required during three (03) years warranty period and during CAMC period after the completion of warranty period.

2. Scope of Work for Hub / Gateway stations:

The broad level scope of work for vendor includes the following:

1. Carry out site preparation and antenna foundation/pedestal and other construction work in consultation with NSIL. This shall include following activities:
 - Civil drawings –architectural and structural, should get cleared by NSIL.
 - While seeking clearance for structural drawing, load details (dead load, live load, wind load etc.) for specific site shall be taken into consideration. These calculation details shall be furnished by the party to NSIL.
 - Bearing capacity test of soil should be carried out before taking up the work – if required.
2. Transportation of equipment to the specified site.
3. Supply, Installation, Commissioning and testing of Hub / Gateway Station and RF front end systems at specified location provided by NSIL.

4. Total solution includes complete system engineering, associated design and development of RF front end sub-systems, supply of required hardware & software, site installation, integration, commissioning and acceptance testing along with NSIL for total hub / gateway stations.
5. Antenna system shall have the provision for stow-locks in both Azimuth and Elevation axes. Hand-cranks shall also be provided in both the axes for moving the antenna to stow-lock position.
6. Cable-wrap or any other suitable arrangements to be provided to avoid cable twist during antenna rotation.
7. All of the NSIL owned GSAT satellites will be operational from Geo arc between 30 deg. E to 135 deg. E. Accordingly proposed hub / gateway station shall have antenna AZ and EL coverage to have line of site RF link established with these satellites.
8. Vendor shall ensure that the offered hub station infrastructure is realized using highly reliable and field proven systems typically required for making highly reliable Satcom terminal achieving round the clock reliable operation with station availability of 99.5% or better.
9. The selection of the sub-systems of hub ground system should be done in a manner to ensure the continuity of service for at least 10 years from the date of installation.

3. Scope of Work for VSAT user Terminals:

1. Carry out site preparation and antenna foundation/pedestal and other minor civil work in consultation with NSIL / user for making site ready for VSAT installation.
2. Vendor shall perform calculation for Load details (dead load, live load, wind load etc.) on VSAT terminal for specific site shall and seek clearance from NSIL before installation. These calculation details shall be furnished by the party to NSIL.
3. Transportation of equipment to the specified site.
4. Supply, Installation, Commissioning and testing of VSAT Terminal and RF front end systems at specified location provided by NSIL.
5. Antenna mount / drive mechanism shall be capable of precisely orientating VSAT terminal towards Geo satellite operating between 30 deg.E to 135 deg.E.
6. Vendor shall ensure that the offered VSAT terminal is realized using highly reliable and field proven systems typically required for making highly reliable VSAT terminal achieving round the clock reliable operation with station availability of 99.5% or better.
7. The selection of the sub-systems of hub ground system should be done in a manner to ensure the continuity of service for at least 10 years from the date of installation.

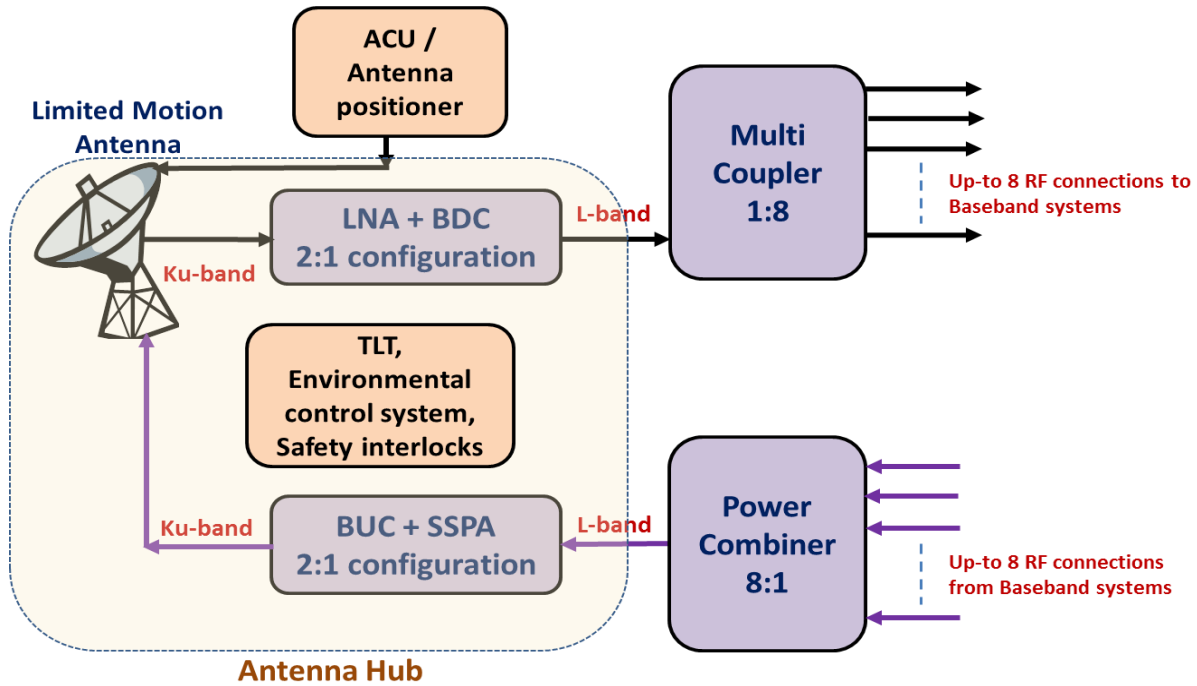
2. Brief Description of the Hub Station

- A. Each Hub station will comprise of limited motion antenna mounted on a ground pedestal minimum 180 degree of Azimuth movement without sector change.

- B. The antenna system, apart from the mount and reflector, shall also consist of Transmit, receive and auto-tracking feed, operating in Ku-Band. Feed shall be of 4 port type (2 transmit, 2 receive in orthogonal polarization), Diplexer, Band Pass filters for Transmit & Receive band, dummy load etc.
- C. Further, it should have the required front-end systems like LNA/LNBs, Multi-couplers, and Frequency block up/down Converters and suitable tracking receiver for auto-tracking along with the antenna control & drive systems.
- D. The antenna control system shall have all standard operational and safety features in addition to certain special features specified separately.
- E. The hub of the antenna reflector should have sufficient room for mounting LNB / HPA / Frequency block Converters and other associated electronics. For C-band Hub station / VSAT terminal 70 MHz IF O/P option also acceptable.
- F. The feed shall have its own pressurization system to prevent moisture entering into the feed and associated elements.
- G. The required cables, connectors, waveguide components and harnesses for interfacing with the sub-systems that are part of this proposal should be included in the offer.
- H. The auto-tracking / beacon tracking receiver used in the system should be compatible to the type of feed used in the system.
- I. The complete feeder station and all its sub-systems should be monitored and controlled through remote M&C interface, preferably using TCP/IP.
- J. Each hub / gateway station should have the capability of simultaneous multi-carrier uplink and downlink in C/Ku/Ka-band.
- K. The RF systems shall be provided with L-band (within 950 – 1950/2350 MHz range) power splitter (1:8) with suitable isolation between ports interface to connect multiple (up to 8) baseband equipments.
- L. Total feeder station shall be designed to have typical operational life of 15 years. All sub-systems / major components / other software, hardware and mechanical elements shall be selected keeping in mind reliable operations of feeder station over next 15 years.
- M. At specified hub location there will be an antenna pedestal and a centralized baseband equipment room. All satellite modems / baseband processing / networking / ACU related equipments will be placed in this building in controlled environment. So, for a given site, all required RF / data / Power cables are required to be routed to this building from hub of both feeder antennas. Max. cable length expected from each antenna hub to central building will be around 30-50 meter.

4. Technical Details of Gateway Stations

The representative baseline configuration of the hub / gateway station is given in Figure below. This provides overall station block diagram of gateway station.



Note: Above shows indicative base line configuration of gateway station. Vendor must provide detailed block schematic of gateway stations in their technical proposal.

3.1. Hub / Gateway Station Specifications:

The Gateway / HUB stations are projected in three frequency bands – all satcom C-band, Ku-band and Ka-band. The major specifications of the gateway station to be complied by the vendor are as given in following Table. Vendor needs to submit their technical compliance statement in a tabular form indicating compliance for each specification, offered specifications, any deviation from this RFP specification and its impact on overall feeder station performance. The antenna sizes for Gateway / Hub station are for meeting required RF specifications. The bidder can offer antenna sizes matching to nearby size given in specification below provided all other gateway / hub station specifications are fully met.

C-band HUB / Gateway Station:

No	Parameter	Specification	Compliance (Yes / No)	Remarks (Details of vendor's offer)
1.	Antenna & Feed Operating Frequency Band: 1. Receive 2. Transmit 3. Tracking	3.67 – 4.2 GHz 5.925 to 6.425 GHz 3.67 – 4.2 GHz		
2.	Antenna diameter	7.3 / 9.1 / 11.0 meter		(+/- 0.2 meter typical size)

				difference can be considered
3.	Antenna Mount	Elevation over Azimuth		
4.	Antenna Geometry	As per design. Dual reflector configuration.		
5.	Antenna efficiency	Min. 60% or better for both Rx. And Tx. Freq. band		
6.	Station EIRP (with 400 watts Tx.) 7.3 meter 9.1 meter 11.0 meter	75.3 dBW or better 77.0 dBW or better 78.5 dBW or better		
7.	Rx. Filtering	Pass band IL: 1.0 dB max. 0.8 dB desirable. Min. 45 dB Rejection at F=3.6 GHz Min. 65 dB or better for freq. <3.5 GHz and >4.5 GHz Min. 70 dB or better for freq. >5.5 GHz		
8.	Receive G/T at 10 deg. EL: 7.3 meter 9.1 meter 11.0 meter	25.0 dB/K or better 26.9 dB/K or better 28.5 dB/K or better		
9.	Tracking Mode	Manual, slew, Program & Adaptive / Auto track		
10.	Tx./Rx. Polarization	Dual Linear (Vertical & Horizontal)		
11.	Tx./Rx. Side lobes envelope	As per ITU-R Rec. S.580-5		
12.	Peak Pointing error	Maximum Average RMS pointing error should not exceed 1/5 th of 3-dB Rx beam width for winds of 60 km/hr. gusting to 80 km/hr.		
13.	Peak Tracking error	Maximum Average RMS tracking error should not exceed of 1/5 th of 3-dB Rx beam width for winds of 60 km/hr. gusting to 80 Km/hr.		

14.	Antenna Travel Range	Azimuth: minimum 180 deg. continuous without sector change. Elevation: 2-89 Deg. (0 to 90 deg. desirable)		
15.	Antenna Velocity	AZ: 0.01 – 1.0 Deg./sec EL: 0.01 – 1.0 Deg./sec		
16.	Antenna Acceleration	0.2 deg./sec ² or better for both AZ & EL axis		
17.	Angular resolution	0.001 Degree or better		
18.	Polarization movement	Polarization to match spacecraft polarization angle within +/- 0.5 degree (Linear rotatable: ± 90 deg.) through motor with digital display		
19.	Feed Assembly	4-Port, Tx./Rx. Linear Polarized; capable of transmitting and receiving both polarizations, simultaneously		
20.	Cross-Pol Isolation (Tx. & Rx)	≥30 dB within beam width		
21.	Feed Power handling capability	minimum 1 KW CW per Tx. Port		
22.	Reflector surface RMS	Better than 0.5 mm RMS – suitable to achieve required RF specifications for total station.		
23.	Port-to-Port Isolation			
	Tx-Tx / Rx-Rx	≥ 30 dB		
	Rx-Tx	Better than 90 dB		
	Tx - Rx	Better than 110 dB		

Ku-band HUB / Gateway Station:

No	Parameter	Specification	Compliance (Yes / No)	Remarks (Details of vendor's offer)
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1.	Antenna & Feed Operating Frequency Band: 1. Receive 2. Transmit 3. Tracking	10.7 – 12.7 GHz 12.75 to 14.5 GHz 10.7 – 12.7 GHz		
2.	Antenna diameter	7.3 / 9.1 / 11.0 meter		(+/- 0.2 meter typical size difference can be considered)
3.	Antenna Mount	Elevation over Azimuth		
4.	Antenna Geometry	As per design. Dual reflector configuration.		
5.	Antenna efficiency	Min. 60% or better for both Rx. And Tx. Freq. band		
6.	Station EIRP (with 400 watts Tx.) 7.3 meter 9.1 meter 11.0 meter	81.9 dBW or better 84.0 dBW or better 85.6 dBW or better		
7.	Rx. Filtering	Pass band IL: 1.0 dB max. Min. 60 dB rejection freq. <10.0 GHz and >13.0 GHz		
8.	Receive G/T at 10 deg. EL: 7.3 meter 9.1 meter 11.0 meter	33.0 dB/K or better 35.0 dB/K or better 36.5 dB/K or better		
9.	Tracking Mode	Manual, slew, Program & Adaptive / Auto track		
10.	Tx./Rx. Polarization	Dual Linear (Vertical & Horizontal)		
11.	Tx./Rx. Side lobes envelope	As per ITU-R Rec. S.580-5		
12.	Peak Pointing error	Maximum Average RMS pointing error should not exceed 1/5 th of 3-dB Rx beam width for winds of 60 km/hr. gusting to 80 km/hr.		
13.	Peak Tracking error	Maximum Average RMS tracking error should not		

		exceed of 1/5 th of 3-dB Rx beam width for winds of 60 km/hr. gusting to 80 Km/hr.		
14.	Antenna Travel Range	Azimuth: minimum 180 deg. continuous without sector change. Elevation: 2-89 Deg. (0 to 90 deg. desirable)		
15.	Antenna Velocity	AZ: 0.01 – 1.0 Deg./sec EL: 0.01 – 1.0 Deg./sec		
16.	Antenna Acceleration	0.2 deg./sec ² or better for both AZ & EL axis		
17.	Angular resolution	0.001 Degree or better		
18.	Polarization movement	Polarization to match spacecraft polarization angle within +/- 0.5 degree (Linear rotatable: ± 90 deg.) through motor with digital display		
19.	Feed Assembly	4-Port, Tx./Rx. Linear Polarized; capable of transmitting and receiving both polarizations, simultaneously		
20.	Cross-Pol Isolation (Tx. & Rx)	≥30 dB within beam width		
21.	Feed Power handling capability	minimum 800 watts CW per Tx. Port		
22.	Reflector surface RMS	Better than 0.35 mm RMS. Suitable for Ku-band Operation and to achieve required RF specifications for total station.		
23.	Port-to-Port Isolation			
	Tx-Tx / Rx-Rx	≥ 30 dB		
	Rx-Tx	Better than 90 dB		
	Tx - Rx	Better than 110 dB		

Ka-band HUB / Gateway Station:

No	Parameter	Specification	Compliance (Yes / No)	Remarks (Details of vendor's offer)
1.	Antenna & Feed Operating Frequency Band: 1. Receive 2. Transmit 3. Tracking	17.7 – 21.2 GHz 27.0 to 31.0 GHz 17.7 – 22.0 GHz		
2.	Antenna diameter	7.3 / 9.1 / 11.0 meter		(+/- 0.2 meter typical size difference can be considered)
3.	Antenna Mount	Elevation over Azimuth		
4.	Antenna Geometry	As per design. Dual reflector configuration.		
5.	Antenna efficiency	Min. 50% or better for Tx. Min. 55% for Rx. band		
6.	Station EIRP (with 200 watts Tx.) 7.3 meter 9.1 meter 11.0 meter	84.6 dBW or better 86.5 dBW or better 88.0 dBW or better		
7.	Rx. Filtering	Pass band IL: 1.2 dB max. Min. 60 dB rejection freq. <16.5 GHz and >32.0 GHz		
8.	Receive G/T at 10 deg. EL: 7.3 meter 9.1 meter 11.0 meter	36.6 dB/K or better 38.6 dB/K or better 40.2 dB/K or better		
9.	Tracking Mode	Manual, slew, Program & Adaptive / Auto track		
10.	Tx./Rx. Polarization	Circular – RHCP and LHCP		
11.	Tx./Rx. Side lobes envelope	As per ITU-R Rec. S.580-5		
12.	Peak Pointing error	Maximum Average RMS pointing error should not exceed 1/5 th of 3-dB Rx beam width for winds of		

		60 km/hr. gusting to 80 km/hr.		
13.	Peak Tracking error	Maximum Average RMS tracking error should not exceed of 1/5 th of 3-dB Rx beam width for winds of 60 km/hr. gusting to 80 Km/hr.		
14.	Antenna Travel Range	Azimuth: minimum 180 deg. continuous without sector change. Elevation: 5-89 Deg.		
15.	Antenna Velocity	AZ: 0.01 – 1.0 Deg./sec EL: 0.01 – 1.0 Deg./sec		
16.	Antenna Acceleration	0.2 deg./sec ² or better for both AZ & EL axis		
17.	Angular resolution	0.0001 Degree or better		
18.	Feed Assembly	4-Port, Tx./Rx. Dual circular Polarized; capable of transmitting and receiving both polarizations, simultaneously		
19.	Cross-Pol Isolation (Tx. & Rx)	≥30 dB within beam width		
20.	Feed Power handling capability	minimum 400 watts CW per Tx. Port		
21.	Reflector surface RMS	Better than 0.3 mm RMS. Suitable for Ku-band Operation and to achieve required RF specifications for total station.		
22.	Port-to-Port Isolation			
	Tx-Tx / Rx-Rx	≥ 30 dB		
	Rx-Tx	Better than 90 dB		
	Tx - Rx	Better than 110 dB		

C-band User / VSAT Terminal:

No	Parameter	Specification	Compliance (Yes / No)	Remarks (Details of vendor's offer)
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1.	Operating Frequency Band: 1. Receive 2. Transmit	3.67 – 4.2 GHz 5.925 to 6.425 GHz		
2.	Antenna diameter	1.8 / 2.4 / 3.0 / 3.7 meter		
3.	EIRP (with 20 watts Tx.) 1.8 meter 2.4 meter 3.0 meter 3.7 meter	49.8 dBW or better 52.3 dBW or better 54.3 dBW or better 56.1 dBW or better		
4.	Rx. Filtering	Pass band IL: 1.0 dB max. 0.8 dB desirable. Min. 45 dB Rejection at F=3.6 GHz Min. 65 dB or better for freq.<3.5 GHz and >4.5 GHz Min. 70 dB or better for freq. >5.5 GHz		
5.	Receive G/T at 10 deg. EL: 1.8 meter 2.4 meter 3.0 meter 3.7 meter	12.8 dB/K or better 15.3 dB/K or better 17.3 dB/K or better 19.1 dB/K or better		
6.	Tx./Rx. Polarization	Linear (Vertical / Horizontal)		
7.	Tx./Rx. Side lobes envelope	As per ITU-R Rec. S.580-5		
8.	Antenna Pointing	Azimuth: minimum 180 deg. Range. Elevation: 3-89 Deg.		
9.	Polarization movement	Polarization to match spacecraft polarization angle within +/- 1.0 degree (Linear rotatable: ± 90 deg.)		
10.	Feed Assembly	4-Port, Tx./Rx. Linear Polarized		
11.	Feed Power handling capability	minimum 75 watts CW per Tx. Port		

12.	Motorized drive for VSAT terminal	For 3.0 / 3.7-meter VSAT motorized drive with ACU can be added for precise movement and pointing of the antenna towards required satellite. Pricing towards that can be indicated separately.
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Ku-band User / VSAT Terminal:

No	Parameter	Specification	Compliance (Yes / No)	Remarks (Details of vendor's offer)
13.	Operating Frequency Band: 1. Receive 2. Transmit	10.7 – 12.7 GHz 12.75 to 14.5 GHz		
14.	Antenna diameter	1.2 / 1.8 / 2.4 meter		
15.	EIRP (with 10 watts Tx.) 1.2 meter 1.8 meter 2.4 meter	50.7 dBW or better 54.2 dBW or better 56.6 dBW or better		
16.	Rx. Filtering	Pass band IL: 1.0 dB max. Min. 60 dB rejection freq.<10.0 GHz and >13.0 GHz		
17.	Receive G/T at 10 deg. EL: 1.2 meter 1.8 meter 2.4 meter	17.1 dB/K or better 20.6 dB/K or better 23.1 dB/K or better		
18.	Tx./Rx. Polarization	Linear (Vertical / Horizontal)		
19.	Tx./Rx. Side lobes envelope	As per ITU-R Rec. S.580-5		
20.	Antenna Pointing	Azimuth: minimum 180 deg. Range. Elevation: 3-89 Deg.		
21.	Polarization movement	Polarization to match spacecraft polarization angle within +/- 1.0 degree (Linear		

		rotatable: ± 90 deg.)		
22.	Feed Assembly	4-Port, Tx./Rx. Linear Polarized		
23.	Feed Power handling capability	minimum 50 watts CW per Tx. Port		

Ka-band User / VSAT Terminal:

No	Parameter	Specification	Compliance (Yes / No)	Remarks (Details of vendor's offer)
24.	Operating Frequency Band: 1. Receive 2. Transmit	17.7 – 21.2 GHz 27.0 to 31.0 GHz		
25.	Antenna diameter	0.9 / 1.2 / 1.8 meter		
26.	EIRP (with 5 watts Tx.) 0.9 meter 1.2 meter 1.8 meter	50.5 dBW or better 53.1 dBW or better 56.6 dBW or better		
27.	Rx. Filtering	Pass band IL: 1.0 dB max. Min. 60 dB rejection freq.<10.0 GHz and >13.0 GHz		
28.	Receive G/T at 10 deg. EL: 0.9 meter 1.2 meter 1.8 meter	18.1 dB/K or better 20.6 dB/K or better 24.1 dB/K or better		
29.	Tx./Rx. Polarization	Circular – RHCP / LHCP		
30.	Tx./Rx. Side lobes envelope	As per ITU-R Rec. S.580-5		
31.	Antenna Pointing	Azimuth: minimum 180 deg. Range. Elevation: 5-89 Deg.		
32.	Polarization movement	Polarization to match spacecraft		

		polarization angle within +/- 1.0 degree (Linear rotatable: ± 90 deg.)		
33.	Feed Assembly	4-Port, Tx./Rx. circular Polarized		
34.	Feed Power handling	minimum 25 watts CW per Tx. Port		

Environmental Specifications for HUB / Gateway station			
1.	Operating Temperature Range	0.0 to +50 Deg. C	
2.	Storage temperature	-10 C to +60 deg. C	
3.	Humidity	95% Rh @ 40 deg. C	
4.	Rain	As per JSS 55555 or equivalent	
5.	Dust	As per JSS 55555 or equivalent	
6.	Wind Speed		
	Operational	60 kmph	
	Gusting	80 Kmph	
	Stowing speed to Zenith	80 kmph	
	Survival wind speed	Min. 180 kmph	

3.2. Warranty Support:

- 3.2.1 The vendor has to provide a warranty for 3 years, which includes comprehensive maintenance with spares for gateway stations.
- 3.2.2 Vendor needs to quote separately for provision to extend period of comprehensive maintenance including spares supply for another 2 years after completion of 3-year warranty period for gateway stations.
- 3.2.3 The vendor shall provide technology and spare support for all the supplied hardware and software elements for a period of 10 years.
- 3.2.4 The term comprehensive means Vendor will diagnose repair / replace the faulty component / system / peripherals / software and OS installed for Gateway with its own resources and equipment within given time frame, make system operational and all expenditure related to comprehensive maintenance has to be borne by Vendor.
- 3.2.5 All logistics like arrangement of required transport of equipment and lodging / boarding for maintenance personnel will be the responsibility of Vendor.
- 3.2.6 During warranty / Comprehensive AMC period, supplier should attend the any problems/failures/anomalies calls within 48 hours of intimation. Also, vendor shall ensure that any issues / failures / components anomalies get resolved within reasonable time frame of 7-10 days.

3.2.7 During comprehensive AMC / extended warranty services time duration, is vendor fails to resolve any issue beyond any reasonable time frame, NSIL reserves right to withhold AMC payments till the reported issue gets resolved.

5. Project Management

The contractor shall perform all the project management functions including technical and business management functions that are necessary to execute the total effort required towards successful realization of hub / gateway station and VSAT user terminals.

The contractor shall develop and implement a Management Program that clearly defines how the complete project will be managed and controlled. A task matrix keyed to the Work Breakdown Structure (WBS) shall be developed in sufficient detail to identify contractor and sub-contractor responsibilities. The contractor shall designate a Project Manager (PM) to coordinate day-to-day activities and to act as technical interface with the project focal point to be identified by NSIL. Project Manager shall be directly responsible to coordinate and manage the following tasks.

- Technical Interface / Coordination meetings
- Detailed Design Review (PDR) for Hub station configuration and realization plan

5.1. Technical Interface Meeting (TIM):

The vendor in his own interest is free to organize Technical Interface Meetings with NSIL at a mutually agreed venue or via audio / video conference, with NSIL for exchange of information / clarifications and review of progress of the supply order.

These meetings could also be held as informal design reviews and shall serve the purpose the regular monitoring of the progress / address any issues associated with realization of the hub station / VSAT user terminals. The vendor is responsible for designating the subject. Date & mode of such meetings with mutual consent and assure availability of concerned personnel.

5.2. Detailed Design Review (DDR)

The DDR will be carried out for each supply order for evaluation of detailed design of the hub station after supply order. Typically, DDR shall be carried out within two-three months of the issue of supply order. This review shall address the high-level design of the system, mapping the system requirements to a preliminary System Description Document (SDD). The SDD shall be delivered in book form & also in softcopy at least two weeks before DDR. The venue of DDR shall be preferably NSIL, Bengaluru / Video conference mode or at mutually agreed upon place.

The SDD shall, at a minimum include:

5.2.1. Overall hub / gateway station overview.

- 5.2.2. General architecture with proposed RF front end hardware and software modules at a high level.
- 5.2.3. Design considerations and design details of major subsystems like antenna pedestal (Civil, electrical, Air conditioning, safety, etc.), foundation design, antenna mechanical systems consisting of mount, reflector, sub-reflector, cable wrap, antenna servo drive, feed, RF front end electronic systems etc.
- 5.2.4. Civil drawing – structural and architectural cleared by NSIL.
- 5.2.5. Analysis on wind torque, drive torque, stiffness, locked rotor frequency analysis of antenna structure including mount, reflectors etc.
- 5.2.6. Performance analysis of major requirements and specifications like G/T, EIRP pointing accuracies, tracking accuracies, surface accuracies, antenna efficiency etc.
- 5.2.7. Preliminary analysis of reliability, availability, maintainability etc.
- 5.2.8. Equipment layout and other preliminary drawings.
- 5.2.9. Safety and security engineering considerations including stow-lock, ladders, limits, brake system, lightning arresters etc.
- 5.2.10. List of materials, parts and software with license. Preliminary ICDs.
- 5.2.11. List of deliverables including documents.
- 5.2.12. Planned activity for realization of hub station and major milestones.
- 5.2.13. System reliability and Quality Assurance Plan.

The DDR process is intended to serve as an interim step in the design validation where NSIL/Purchaser and the successful bidder agree that the design is proceeding as planned and meets the requirement.

6. Sustaining Engineering

6.1. Training

The vendor shall develop a comprehensive Training Program covering all aspects of the system including hardware and software elements. The content and conduct of the training classes shall be based upon the general requirements for training on such systems and shall be directed towards NSIL or its users who perform ground hardware and software operation and maintenance duties.

Training shall be provided as a mix of class-room presentation and hands-on demonstration. The training class material shall cover all related aspects, with a special emphasis on theory of operation, operation procedures and tips, dos and don'ts, system hardware and software maintenance, probable failure modes and troubleshooting guidelines, periodic performance evaluation etc.

6.2. Hardware Maintenance

For the system supplied, minimum three year of warranty period is required. The vendor shall be responsible for hardware maintenance of all equipments and systems procured through this supply order till the end of warranty period. The warranty period shall start after system acceptance. The vendor shall be responsible for imparting necessary training required for maintenance of all the equipments whether manufactured by the vendor or procured thru a sub-vendor. The vendor shall guarantee supply of spares for a period of minimum of 10 years from the acceptance of the system by NSIL.

6.3. Software Maintenance

The vendor shall retain full responsibility for the software maintenance till the end of warranty period. The software maintenance effort includes corrective changes / upgrades to the software configuration. Documentation updates shall be made to reflect any changes made in the System User's Manual and Software Maintenance Manual.

6.4. Factory Acceptance Tests:

Factory Acceptance test is to be carried out for Hub stations and VSAT terminals to ensure that all the deliverables / sub-systems are working as per specifications. For any bought out sub-systems, manufacturer's factory acceptance results to be shared with NSIL.

The factory acceptance tests shall be carried out for all applicable sub-systems, as per the standard procedures. The supplier shall provide the types of tests to be carried out & the test procedures for carrying out the Factory Acceptance Tests well in advance, for the approval & mutual agreement. The tests results shall be submitted to NSIL for approval, before the actual shipment of the equipment. NSIL reserves the right to witness the tests, if required.

6.5. On Site final acceptance test, Training & Support:

The supplier shall carry out onsite installation, integration and testing of the hub station and VSAT terminals after the delivery and ensure proper functioning of the complete integrated system.

Party needs to also separately provide list of essential spares / modules to be kept at site for quick rectifications of any failures during operational life of the feeder station. Quote for the same shall be separately provided in the price bid cover.

7. Quality Assurance

The vendor shall be ISO-9001 certified for Quality Management and Quality Assurance. The party shall establish and conduct a Quality Assurance Plan (QAP) as a part of this contract. The plan shall be implemented at award of contract and continued throughout the life of the

contract. The plan shall consist of sequential inspections and progressive Quality Control throughout the developmental and installation cycle. The plan shall detail methods for documenting defects, identifying deficient areas, providing timely correction of deficiencies and recommending solutions to systemic problems. The plan shall assure that the quality of all items supplied and the services provided to NSIL meets the specification requirements and objectives, whether manufactured or processed by the party or procured from sub-contractors or vendors.

Vendor shall ensure that all third party procured sub-systems / components are from reputed proved vendors having established quality control procedures. Sub-systems / components from third party shall be based on filed proven design and not any new development which is yet to be field qualified.

The personnel assigned to quality assurance functions of QAP shall be fully trained in their areas of responsibility and shall have sufficient and well-defined responsibilities, independent authority and organizational freedom to identify and evaluate quality programs and to initiate and recommend timely and positive solutions.

Documentations which demonstrate, that the party has accomplished Quality Assurance inspection shall be maintained and be made available to NSIL prior to presentation for preliminary acceptance. The inspection and test documentation shall clearly describe the test or inspection to be carried out with acceptance and rejection criteria and shall list the quantity and type of deficiencies found and the nature of corrective action taken. The QAP shall establish and maintain an effective and positive control of non-conforming supplies or products including procedures.

8. Pricing table template for different HUB / Gateway Stations:

No	Particulars	Unit price - (INR)	Remarks
1	C-band 7.3 Antenna with ACU and RF front end <ul style="list-style-type: none"> With 400 watts PA (2:1 config) With 800 watts PA (2:1 config) With 1 KW PA (2:1 config) 		
2	C-band 9.1 Antenna with ACU and RF front end <ul style="list-style-type: none"> With 400 watts PA (2:1 config) With 800 watts PA (2:1 config) With 1 KW PA (2:1 config) 		
3	C-band 11.0 Antenna with ACU and RF front end <ul style="list-style-type: none"> With 400 watts PA (2:1 config) With 800 watts PA (2:1 config) With 1 KW PA (2:1 config) 		
4	Ku-band 7.3 Antenna with ACU and RF front end <ul style="list-style-type: none"> With 200 watts PA (2:1 config) With 400 watts PA (2:1 config) With 800 watts PA (2:1 config) 		
5	Ku-band 9.1 Antenna with ACU and RF front end <ul style="list-style-type: none"> With 200 watts PA (2:1 config) With 400 watts PA (2:1 config) With 800 watts PA (2:1 config) 		
6	Ku-band 11.0 Antenna with ACU and RF front end <ul style="list-style-type: none"> With 200 watts PA (2:1 config) With 400 watts PA (2:1 config) With 800 watts PA (2:1 config) 		
7	Ka-band 7.3 Antenna with ACU and RF front end <ul style="list-style-type: none"> With 160 watts PA (2:1 config) With 400 watts PA (2:1 config) 		
8	Ka-band 9.1 Antenna with ACU and RF front end <ul style="list-style-type: none"> With 160 watts PA (2:1 config) With 400 watts PA (2:1 config) 		

9	Ka-band 11.0 Antenna with ACU and RF front end <ul style="list-style-type: none"> • With 160 watts PA (2:1 config) • With 400 watts PA (2:1 config) 		
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9. Pricing table for different User / VSAT Terminals:

No	Particulars	Unit price - (INR)	Remarks
1	C-band 1.8 meter Antenna with RF front end <ul style="list-style-type: none"> • With 10 watts PA / BUC • With 20 watts PA / BUC • With 40 watts PA / BUC 		Slab wise pricing can be provided for Slab: 1 - 20 nos. 21 – 50 nos. 51 – 100 nos. >100 nos.
2	C-band 2.4 meter Antenna with RF front end <ul style="list-style-type: none"> • With 10 watts PA / BUC • With 20 watts PA / BUC • With 40 watts PA / BUC 		
3	C-band 3.0 meter Antenna with RF front end <ul style="list-style-type: none"> • With 10 watts PA / BUC • With 20 watts PA / BUC • With 40 watts PA / BUC 		
4	C-band 3.7 meter Antenna with RF front end <ul style="list-style-type: none"> • With 10 watts PA / BUC • With 20 watts PA / BUC • With 40 watts PA / BUC 		
5	Ku-band 1.2 meter Antenna and RF front end <ul style="list-style-type: none"> • With 4 watts PA / BUC • With 8 watts PA / BUC • With 20 watts PA / BUC 		
6	Ku-band 1.8 meter Antenna with RF front end <ul style="list-style-type: none"> • With 4 watts PA / BUC • With 8 watts PA / BUC • With 20 watts PA / BUC 		
7	Ku-band 2.4 meter Antenna with RF front end		

	<ul style="list-style-type: none"> With 4 watts PA / BUC With 8 watts PA / BUC With 20 watts PA / BUC 		
8	Ka-band 0.9 meter Antenna with RF front end <ul style="list-style-type: none"> With 2 watts PA / BUC With 4 watts PA / BUC With 8 watts PA / BUC 		Slab wise pricing can be provided for Slab: 1 - 20 nos. 21 – 50 nos. 51 – 100 nos. >100 nos.
9	Ka-band 1.2 meter Antenna with RF front end <ul style="list-style-type: none"> With 2 watts PA / BUC With 4 watts PA / BUC With 8 watts PA / BUC 		
10	Ka-band 1.8 meter Antenna with RF front end <ul style="list-style-type: none"> With 2 watts PA / BUC With 4 watts PA / BUC With 8 watts PA / BUC 		
11	Essential spares for VSAT Terminals <ul style="list-style-type: none"> For C-band VSAT For Ku-band VSAT For Ka-band VSAT 		
12	Motorized drive / ACU for VSAT terminals (applicable for only to 3.0 / 3.7 meter C-band VSAT terminals)		For Quantity: 1 – 5 sets. 6 – 10 sets.

10. List of Deliverables for each HUB / Gateway station:

No	Item Description	Quantity
1	Antenna reflector with suitable feed system, required band pass filters, mount, Gear box, foundation plate etc.	01 set
2	Antenna Control Servo System with suitable motors, safety limits, ACU and angle encoders with required interfaces.	01 set
3	LNA / LNB in 2:1 configuration	01 set
4	PA / BUC in 2:1 configuration	01 set
5	Down Converters / BDC in 2:1 (or 1:1) configuration for each Rx. channel	01 set
6	UP Converters / BUC in 2:1 (or 1:1) configuration for each Tx. channel	01 set
7	Test Loop Translator / simulation system	01 set
8	NavIC / GPS based Frequency and Time distribution system	01 set

9	Test couplers / power samplers	As per requirement
10	Power splitter and combiner	As per requirement
12	RF passive components, RF & data cables, integration components along with Instrumentation rack for housing Indoor equipment.	As per requirement
11	Antenna HUB environmental control system	01 set
12	Test Instruments – Spectrum Analyzer, RF signal Generator, Power meter of suitable frequency range	01 set
13	Total Station Monitoring and Control System	01 set
14	One set of critical Spares (vendor to provide spares list)	01 set
15	Required documentation	Both Hard and Soft copy
16	Factory Acceptance Testing, Installation at designated site, integration, site acceptance testing and commissioning of the total system.	01 lot
17	Comprehensive on site 03 years of warranty support.	01 lot

Based on bill of material table, bidder shall arrive pricing for the gateway / hub station accounting all above deliverables.

11. List of Deliverables for user / VSAT Terminal:

No	Item Description	Quantity
1	Antenna reflector with suitable feed, required band pass filters, mounting mechanism, drive etc.	01 set
2	LNA / LNB	As per requirement
3	PA / BUC of specified power rating	01 set
4	Test couplers / power samplers	As per requirement
5	Power splitter and combiner	As per requirement
6	RF passive components, RF cables, integration components.	As per requirement
7	Required documentation	Both Hard and Soft copy
8	Installation at designated site, integration, testing and commissioning of the total system	01 lot
9	Comprehensive on site 03 years of warranty support.	01 lot

Based on bill of material table, bidder shall arrive pricing for the VSAT terminals accounting all above deliverables.

Section-3: General Condition for this RFP

1. Payment Terms & Schedule

For every supply order payment term will be mentioned towards supply of required hub stations and VSAT terminals.

For hub station / VSAT terminal supply, payment will be made as per successful completion of different milestones of the project appropriately. Total payment can be divided into maximum four instalments as per milestone completion.

Advance Payment: If bidder proposes, An advance payment of maximum 25% of the total order value of the supply order (Excluding AMC) shall be paid to Bidder/Seller within 30 days of issue of the supply order and acceptance of the same by vendor. Advance payment will be made after the receipt of Bank Guarantee for the 110% for the value of Advance payment.

2. Frame work Contract Duration and Termination:

1. This Frame work Contract will be in force for three years and further extendable up-to two more years under same terms and conditions. Accordingly, all the bidders are required to provide the pricing information which is valid for minimum three years (considering yearly escalation as mention in para 2.6 of Section-1 of this RFP).
2. In case of any unforeseen situation arises in future, NSIL reserves right to terminate this Framework Contract by giving one month notice to the party.
3. If at completion / termination of the Frame work contract duration, if any hub / gateway station or VSAT terminal executed under specific supply order is still under warranty, all the contract terms related to warranty support will be applicable till the completion of warranty period.
4. In case of any unsatisfactory services / sub-standard work executed by any vendor, NSIL reserves right to terminate the Frame Work agreement with the vendor by giving one month notice period. In case of any unforeseen situation arises at vendor side resulting in incapacity of the vendor to full fill Frame work contract obligation, vendor shall give minimum one-month written notice to NSIL. However, vendor shall fully complete (to the satisfaction of NSIL) any ongoing / pending work (under specific supply order) being executed by him during termination of the Frame work Contract.

3. General Guidelines to the Vendors and Other terms & Conditions

1. Vendor shall comply with all specifications of this RFP / supply order. Any deviations compared to this RFP / supply order specifications shall be mentioned clearly in their offer and supported with justification on how these deviations will / will not hamper the overall performance of the system. Any improvement in the offered system compared to RFP specification shall be separately brought out in the offer.

2. Vendor shall use off the shelf items from reputed and approved (by NSIL) manufacturers for all major building blocks of the sub systems for hub / gateway stations and VSAT terminals.
3. The overall configuration and implementation plan for hub station should be clearly explained with the help of block schematic of the complete system. The offer should also include the technical justification of choosing each sub-system with respect to the goal of meeting overall system specifications and other requirements.
4. The vendor must provide a Statement of Compliance (SoC), covering each point of system and sub-system specifications of complete hub station and VSAT terminals as mentioned in respective sub-system details. In case of any discrepancy between OEM data-sheet and compliance statement, OEM data-sheet will be considered final and binding. This SoC should be well supported by documentation consisting of data sheets, brochure, calculations, literature etc. All relevant details of each subsystem like make & model number, detailed specifications, block schematic, etc. should also be provided. NSIL reserves right to reject any incomplete offer.
5. The system shall be considered to be accepted by NSIL only after the successful completion of the on-site acceptance tests (performed at designated site) duly certified by NSIL. Party or its local representative shall able to provide technical support to NSIL towards acceptance testing of the supplied hub station / VSAT terminals.
6. For every supply order, vendor (if required) can arrange visit to the designated site for initial survey before start of execution of the work. NSIL reserves right to accompany vendor for this site visit.
7. At the time of installation and commissioning of the system if it is found that some additional hardware or software elements are required to complete the configuration to meet the total system requirement; which were not included in the vendor's original list of deliverables; then vendor is required to supply such items to ensure the completeness of the configuration at no extra cost.
8. After receiving the offers, Vendors will be invited, if required, to make technical presentation on their offer to the technical evaluation committee at NSIL. Vendors will be required to provide clarification, if called for, by the evaluation committee, on any matter related to offer.
9. During implementation and warranty support period, if it is observed that any of the supplied components of the system (software and hardware) are not able to handle load or its performance is not able to meet the functional requirements/ technical specifications given in the Tender, the vendor at its own cost shall replace that component (software or hardware) with better specification equipment or provide additional Hardware (along with Operating System)/software components/Licenses for meeting the technical specifications and user requirements within reasonable time period.
10. Delivery Schedule: Vendors shall also note that the realization of Hub station should not exceed 12 months from the date of placing the Supply Order. Time line for VSAT terminal supply and installation shall be as under:
 - For Quantity: 1 – 20 nos. Max. 5 months from supply order
 - Quantity: 21 – 50 nos. Max. 7 months from supply order
 - Quantity: 51 – 100 nos. Max. 9 months from supply order
 - Quantity: > 100 nos. Max. 11 months from supply order

11. Any delay in completing the Supply order is liable to LD applicability as per standard DOS norms.
12. The vendor shall understand that there is scope of minor changes in configuration / functionalities in hub station / VSAT station field deployment needs. The vendor shall accommodate such changes during development or acceptance or activities at no extra cost. The vendor is also responsible for resolving any operational issues.
13. No data, during testing and operational phase, shall be disclosed to any outside party without the consent of User/NSIL. The data shall be treated as confidential.
14. Bidder shall be fully responsible for the manufacturer's warranty in respect of proper design, quality and workmanship of overall hardware, software, accessories, etc., covered by the offer. The bidder must cover warranty for all hardware equipment, software, accessories, etc., against any manufacturing defects/malfunctioning during the Warranty period. During the warranty period the bidder shall maintain the hardware, software, accessories, and repair / free of cost.
15. If faulty equipment is not repairable, successful bidder shall intimate NSIL/Customer regarding replacement of faulty unit, giving all the details/ specifications of the replacement unit. Consent from NSIL/Customer shall be obtained before replacement.
16. NSIL reserves the right to inspect and monitor/ assess the progress/ performance of the work / services at any time during the course of the Contract / supply order. NSIL / user may demand and upon such demand being made, Vendor shall provide documents, data, material or any other information which NSIL / user may require, to enable it to assess the progress/ performance of the work / service.
17. Vendor's Team shall comply and indemnify NSIL with the provision of all laws including labour laws, rules, regulations and notifications issued there under from time to time. All safety and labour laws enforced by statutory agencies and by competent authority shall be applicable in the performance of this Contract and Vendor's Team shall abide by these laws. The Vendor shall also submit the compliance of the laws along with techno-commercial proposal.
18. Based on the location of the site, access to the Site shall be restricted. No access to any person except the essential and required members of Vendor's Team who are authorized by NSIL / user and are genuinely required for execution of work or for carrying out management/ maintenance shall be allowed entry. Even if allowed, access shall be restricted to the pertaining the specified work under supply order only.
19. In the event of NSIL noticing at any time that any amount has been disbursed wrongly to Vendor or any other amount is due from Vendor to the NSIL, NSIL may without prejudice to its rights recover such amounts by other means after notifying Vendor or deduct such amount from any payment falling due to the Vendor. The details of such recovery, if any, shall be intimated to the Vendor. The Vendor shall receive the payment of undisputed amount under subsequent invoice for any amount that has been omitted in previous invoice by mistake on the part of NSIL or the Vendor.
20. All payments to Vendor shall be subject to the deductions of tax at source under Income Tax Act, and other taxes and deductions as provided for under any law, rule or regulation. All costs, damages or expenses which NSIL may have paid or incurred, for which under the provisions of the Contract / supply order, Vendor is liable, the same shall be deducted by NSIL from any dues to Vendor. All payments to Vendor shall be made after making necessary

deductions as per terms of the Contract and recoveries towards facilities, if any, provided by NSIL to Vendor on chargeable basis.

21. Vendor shall fully familiarize themselves about the applicable domestic taxes (such as CGST, SGST, IGST, etc.) on amounts payable by NSIL under this contract / supply order. All such taxes must be included by Vendors in the financial proposal. (Vendor to find out applicable taxes for the components being proposed.)

4. Indemnity

Vendor shall indemnify NSIL or its users from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during execution of the supply order. Vendor shall indemnify NSIL or its users on account of:

- Any negligence or wrongful act or omission by Vendor or any third party associated with Vendor in connection with or incidental to this supply order; or
- Any breach of any of the terms of Vendor's responsibility as agreed for the RFP and supply order under Framework contract by Vendor.
- Any infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied goods and related services or any part thereof.
- Vendor shall also indemnify NSIL against any privilege, claim or assertion made by a third party with respect to right or interest in, ownership, mortgage or disposal of any asset, property etc.
- Regardless of anything contained (except for the Vendor's liability for bodily injury and/or damage to tangible and real property for which it is legally liable and its liability for patent and copyright infringement in accordance with the terms of this Agreement) the total liability of Vendor, is restricted to the total value of the supply order and Vendor is not responsible for any third party claims.

5. Tender Submission:

1. It is a Two-Part Bid.
2. The interested Bidders may fill up the details in the application forms attached as Annexures – A to G.
3. Proposal NOT submitted as per the specified format will be out-rightly rejected.
- 4. The interested bidders may submit their Proposal online (<https://etenders.gov.in/eprocure/app>) on or before the deadline for submission of tender.**
5. Any Proposal received by NSIL after the prescribed deadline for submission of Proposal will be summarily rejected. NSIL shall not be responsible for any postal delay or non-receipt / non-delivery of the documents.
6. Any deviation from the Tender specifications & terms and conditions will not be accepted.
7. After the completion of the selection process, the selected Bidder will be informed.

8. The Bidder should submit the filled-up Tender applications forms (Annexures – A to G) along with necessary documents electronically in .pdf format.
9. Commercial Bids of only Technically qualified bidder will be opened for further evaluation.
10. only Technically qualified bidder will be opened for further evaluation

6. Arbitration:

Differences and disputes, if any arising between NSIL and the bidder at the time of execution of the assignment shall be settled mutually. Unsettled disputes, if any, shall be referred to a single / sole arbitrator to be appointed by Chairman-cum-Managing Director, NSIL, whose decision shall be binding on both the parties. The arbitration proceedings shall be governed by Indian Arbitration & Conciliation Act 1996 and the rules thereunder or any statutory modifications thereof for the time being in force. The venue of the arbitration shall be Bengaluru. The expenses of the arbitration shall be equally shared or shall be as per the decision of the Arbitrator.

Section-4: Annexure's

Annexure-A: Covering Letter

(To be given in the Company Letter Head by the authorized representative of the Bidder)

To

Deputy Manager (Commercial)
NewSpace India Limited (NSIL)
ISRO HQ Campus, New BEL Road
Bengaluru-560 094, Ph: 080-2322 7777
E-mail: purcahse@nsilindia.co.in

Sub: Rate Contract for Supply, Installation and commissioning of Hub / Gateway station and Satcom VSAT Terminals for NSIL users - Reg.

Dear Sir,

1. Having examined the Tender document and appendix thereto, we would like to clearly state that we qualify for the work envisaged under this Tender and meets all eligibility criteria indicated in the Tender document.
2. I/We are in conformity with the Tender document and offer "Rate Contract for Supply, Installation and commissioning of Hub / Gateway station and Satcom VSAT Terminals for NSIL users" as per the Tender document and the terms and condition. If selected, we offer to execute the work allotted to us within the time frame specified for the work. We would NOT outsource the work to any other associate / franchisee/ third party under any circumstances.
3. I/We agree to execute an agreement, in the form to be communicated by NSIL, incorporating all agreements with such alterations or additions thereto as may be necessary to adapt such agreement to the circumstances of the standard and notice of the award within time prescribed after notification of your intention to accept this Proposal.
4. I/We understand that if the details given in support of claims made above are found to be untenable or unverifiable or both, our Proposal may be rejected without any reference to us. We further clearly understand that NSIL is not obliged to inform us of the reasons of rejection of our Proposal.
5. It is certified that the information furnished in this Proposal is true and correct to the best of our knowledge and nothing has been concealed or tampered with.
6. I am duly authorized to sign the documents/ Proposal for and on behalf of our Company/ Firm. Checklist, Company details, Undertaking Form and Technical Specifications as per the template are enclosed herewith.

Date:

Place:

Signature:

Name

Designation

Official stamp

Annexure-B: Check List

Sub: Rate Contract for Supply, Installation and commissioning of Hub / Gateway station and Satcom VSAT Terminals for NSIL users

Check List for Relevant Documents to be submitted

S. No.	Document	Attached (Yes/No)
01	Bid document cost (Demand Draft)	
02	Enclose copy of Bidder registration details with date of incorporation.	
03	Copy of Memorandum and Articles of Association / Partnership Deeds	
04	Documents requested in Section-1 clause 2.5	
05	Address of registered Site Works/ Workshop etc.,	
07	Copy of Latest filed tax returns	
08	All Annexure's (A, B, C, D, E, F, G)	
09	ISO 9001:2015 Certification and other certifications, if any. Copy to be enclosed.	
10	Signed and scanned copy of complete Tender document	
11	Integrity Pact	

Signature of authorized representative
With Office Seal

Date: -----

Annexure-C: Undertaking Form

(To be given in the Company Letter Head
by the authorized representative of the Bidder)

To

Deputy Manager (Commercial)
NewSpace India Limited (NSIL)
ISRO HQ Campus, New BEL Road
Bengaluru-560 094
Ph: 080-2322 7777
E-mail: purchahse@nsilindia.co.in

Dear Sir,

Sub: Rate Contract for Supply, Installation and commissioning of Hub / Gateway station and Satcom VSAT Terminals for NSIL users

I / We hereby declare that our Firm/ Company, at the time of bidding:

- a) possess the necessary professional, technical, financial, and managerial resources and competence as required in this Tender
- b) is having unblemished record and is not declared ineligible for corrupt & fraudulent practices either indefinitely or for a particular period of time by any State/ Central government/ PSU/ UT.
- c) is not insolvent in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and is not the subject of legal proceedings for any of the foregoing reasons.
- d) Read and understood the Tender document and comply with the terms & conditions of the Tender.
- e) Information provided in the Proposal submitted to NSIL is correct and true to best of my/ our knowledge.

Date:

Place:

Signature:

Name

Designation

Official stamp

Annexure-D: Bank Guarantee Format

WHEREAS M/s. _____ (Name & Address of the Firm) having their registered office at _____ (Address of the firms Registered office) (Hereinafter called the 'bidder') wish to participate in the tender No. _____

for _NewSpace India Limited (NSIL) and WHEREAS a Bank Guarantee for (Hereinafter called the "Beneficiary") Rs. _____ (Amount of EMD) valid till _____ (Mention here date of validity of this Guarantee which from the date of the submission of Tender's offer) which is required to be submitted by the bidder along with the tender.

We, _____ (Name of the Bank and address of the Branch giving the Bank Guarantee) having our registered office at _____ (address of Bank's Registered office) hereby give this Bank Guarantee No. _____ dated _____ and hereby agree unequivocally and unconditionally to pay immediately on demand in writing from the NewSpace India Limited or any officer authorized by it in this behalf any amount not exceeding Rs. _____ (Amount for specific supply order), (Rupees _____) (In words) to the said NewSpace India Limited on behalf of the bidder.

We _____ (Name of the Bank) also agree that withdrawal of the tender or specific supply order by the bidder within its validity or Non submission of Security Deposit by the bidder within one month from the date supply order has been accepted by the NewSpace India Limited would constitute a default on the part of the bidder and that this Bank Guarantee is liable to be invoked and encashed within its validity by the Beneficiary in case of any occurrence of a default on the part of the bidder and that the encashed amount is liable to be forfeited by the Beneficiary.

This agreement shall be valid and binding on this Bank up-to and inclusive of _____ (mention here the date of validity of Guarantee) and shall not be terminable by notice or by Guarantor change in the constitution of the Bank or the firm of bidder or by any reason whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, conceded with or without our knowledge or consent by or between the bidder and the NSIL.

"Notwithstanding anything contrary contained in any law for the time being in force or banking practice, this Guarantee shall not be assignable, transferable by the beneficiary (i.e. NSIL). Notice or invocation by any person such as assignee, transferee or agent of beneficiary shall not be entertained by the Bank. Any invocation of the Guarantee can be made only by the beneficiary directly.

NOT WITHSTANDING anything contained hereinbefore, our liability under this guarantee is restricted to Rs. _____ (Amt. of supply order) (Rupees _____) (in words). Our Guarantee shall remain in force till _____ (Date of validity of the Guarantee). Unless demands or claims under this Bank Guarantee are made to us in writing on or before _____ (Date of validity of the Guarantee), all rights of Beneficiary under this Bank Guarantee shall be forfeited and we shall be released and discharged from all liabilities there under:

Place:

Date:

-Please mention here Complete Postal Address of the Bank with Branch Code, Telephone and Fax Nos.

SIGNATURE OF THE BANK'S
AUTHORISED SIGNATORY WITH
OFFICIAL ROUND SEAL

NAME OF DESIGNATED BANKS:

Note1: The Bank Guarantee (B.G) Shall be from the Nationalize Banks or any other Banks, as Notified by the Finance Department, from time to time.

Note2: The B.G shall be signed by two bank officers Jointly if the amount of B.G is more than Rs 50,000/- and B.G must have proper B.G number as per R.B.I guidelines.

Annexure-E: Declaration of Local Content

(To be given in the Company Letter Head
by the authorized representative of the Bidder)

Dated

I/We,M/s.....,
address....., hereby undertakes and declare that the
proportion of imported content to Domestic content in terms of percentage (%) of the total value
of quoted item/s are as follows –

Domestic Content (%) –
Imported Content (%) –

It is also declared that the value addition for the material supplied/ to be supplied is made at
following locations:

- a)
- b)
- c).....
- d).....

We also understand that the false declarations will be in breach of the code of Integrity under
rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be
debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such
other actions as may be permissible under law.

Date:	Signature:
Place:	Name
	Designation
	Official stamp

Annexure-F: Integrity Pact

Pre-Contract Integrity Pact

This Pact made this day of between NewSpace India Limited, a body corporate constituted by the Central Government and having its Corporate Office at -----, hereinafter called the Authority (which term shall unless excluded by or is repugnant to the context, be deemed to include its Chairman cum Managing Director, or Executive Director, Directors, officers, or any of them specified by the Chairman cum Managing Director in this behalf, and shall also include its successors and assigns) of the one part

AND

Represented by of the other part, hereinafter called the "Bidder/Contractor" (which term shall unless excluded by or is repugnant to the context be deemed to include its heirs, representatives, successors and assigns of the Bidder/ Contractor)

WHEREAS the Authority intends to award, under laid down organizational procedures, tender/ contract for The Authority, while discharging its functions on business principles, values proper compliance with all relevant laws and regulations, and the principles of natural justice, ethics, equity, fairness and transparency in its relations with the Bidders/ Contractors.

WHEREAS the Authority is desirous to make its business mechanism more transparent, thus to ensure strict adherence of the aforesaid objectives/goals, the Authority hereby adopts the instrument developed by the renowned international non-governmental organization "Transparency International" (TI) headquartered in Berlin (Germany). The Authority will appoint an Independent External Monitor (IEM) who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

AND WHEREAS the Bidder is submitting a tender to the Authority for In response to the NIT (Notice Inviting Tender) dated Contractor is signing the contract for execution of

NOW, therefore,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to enabling the Authority to obtain the desired said stores/equipment/execution of works at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling Authority to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the Authority will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Commitments of the Authority;

The Authority undertakes that no official of the Authority, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party

related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

All the officials of the Authority will report to the appropriate authority office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the Authority with full and verifiable facts and the same is prima facie found to be correct by the Authority, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the Authority and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the Authority the proceedings under the contract would not be stalled.

Commitments of Bidders/Contractor.

The Bidder/ Contractor commits itself to take all measures necessary to prevent corrupt practice, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following: -

The Bidder/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Authority, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

(i) The Bidder/Contractor further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Authority or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Authority for showing or forbearing to show favor or disfavor to any person in relation to the contract or any other contract with the Authority.

(ii) The Bidder / Contactor has not entered and will not enter with other bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specification, certifications, subsidiary contracts, submission or non-submission of bids or any actions to restrict competitiveness or to introduce cartelization in the bidding process. The Bidder/Contractor shall, when presenting his bid, disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates. The Bidder/ Contactor shall when presenting his bid disclose any and all the payments he has made or, is committed to or intends to make to agents/brokers or any other intermediary, in connection with this bid/contract.

The Bidder/Contractor, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the Authority or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

The Bidder/Contractor will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

The Bidder/ Contractor will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

The Bidder / Contactor shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the Authority as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder / Contractor also undertakes to exercise due and adequate care lest any such information is divulged.

The Bidder/ Contractor will inform to the Independent External Monitor.

If he receives demand for an illegal/ undue payment/benefit.

If he comes to know of any unethical or illegal payment/ benefit.

If he makes any payment to any Authority's associate(s)

The Bidder/ Contactor commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

The Bidder/ Contactor shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

If the Bidder/ Contractor or any employee of the Bidder/ Contractor or any person acting on behalf of the Bidder/ Contractor, either directly or indirectly, is a relative of any of the officers of the Authority, or alternatively, if any relative of an officer of the Authority has financial interest/ stake in the Bidder's/ Contractor's firm, the same shall be disclosed by the Bidder/ Contractor at the time filing of tender. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

The Bidder/ Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Authority.

That if the Bidder/ Contractor, during tender process or before the award of the contract or during execution of the contract/ work has committed a transgression in violation of section 2 or in any other form such as to put his reliability or credibility as Bidder/ Contractor into question, the Authority is entitled to disqualify him from the tender process or to terminate the contract for such reason and to debar the BIDDER from participating in future bidding processes.

The Bidder/Contractor agrees that if it makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason and he may be considered for debarment for future tender/contract processes.

That sub-contractor(s)/ associate(s) engaged by the Contractor, with the approval of the Authority after signing of the contract, and whose value of the work contribution exceeds Rs 2 Crores. (Rupees Two Crores) will be required to sign this Pact by the Contractor, and the same will be submitted to the Authority before doing/ performing any act/ function by such sub-contractor(s)/ associate(s) in relation to the contract/ work.

That the Authority will disqualify from the tender process all Bidder(s) who do not sign this Pact or violate its provisions or fails to get this Pact signed as per the RFP terms and conditions.

That if the Contractor(s) does/ do not sign this Pact or violate its provisions or fails to get this Pact signed as per the RFP terms and conditions. Authority will terminate the contract and initiate appropriate action against such Contractor(s).

Sanctions for Violations/ Disqualification from tender process and exclusion from future Contracts.

Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the Authority to take all or any one of the following actions, wherever required:

To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.

To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.

If the Authority has disqualified/ debarred the Bidder from the tender process prior to the award under section 2 or 3 or 4, the Authority is entitled to forfeit the Earnest Money Deposited.

To recover all sums already paid by the Authority, with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India. If any outstanding payment is due to the BIDDER from the Authority in connection with any other contract or any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the Authority resulting from such cancellation/rescission and the Authority shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

To debar the BIDDER from participating in future bidding processes for a minimum period of three years, which may be further extended at the discretion of the Authority.

To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.

In case where irrevocable Letters of Credit have been received in respect of any contract signed by the Authority with the BIDDER, the same shall not be opened.

Forfeiture of Performance Bank Guarantee in case of a decision by the Authority to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

That the Bidder / Contractor agrees and undertakes to pay the said amount without protest or demur subject only to condition that if the Bidder/ Contractor can prove and establish to the satisfaction of the Authority that the disqualification / debarment of the bidder from the tender process or the termination of the contract after award of the contract has caused no damage to the Authority.

The Authority will be entitled to take all or any of the actions mentioned above of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the

Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

That if the Bidder/ Contractor applies to the Authority for premature revocation of the debarment and proves to the satisfaction of the Authority that he has installed a suitable and effective corruption prevention system and also restored/ recouped the damage, if any, caused by him, the Authority may, if thinks lit, revoke the debarment prematurely considering the facts and circumstances of the case, and the documents/ evidence adduced by the Bidder/ Contractor for first time default.

That a transgression is considered to have occurred if the Authority is fully satisfied with the available documents and evidence submitted along with Independent External Monitor's recommendations/ suggestions that no reasonable doubt is possible in the matter.

The decision of the Authority to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent External Monitor(s) appointed for the purpose of this Pact.

Allegations against Bidders/ Contractors/ Sub-Contractors/ Associates:

That if the Authority receives any information of conduct of a Bidder/ Contractor or Sub-Contractor or of an employee or a representative or an Associates of a Bidder, Contractor or Sub-Contractor which constitute corruption, or if the Authority has substantive suspicion in this regard, the Authority will inform the Vigilance Department for appropriate action.

Facilitation of Investigation.

In case of any allegation of violation of any provisions of this Pact or payment of commission, the Authority or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such Examination.

Law and Place of Jurisdiction.

That this Pact is subject to Indian Law. The place of performance jurisdiction is the Corporate Headquarter of the Authority, as applicable. The courts at Bengaluru shall have exclusive jurisdiction to adjudicate any dispute which may arise in relation to this tender or any way connected or incidental to this tender/Pact.

Other Legal Actions

That the changes and supplements as well as termination notices need to be made in writing.
Pact duration (Validity)

13.1 That this Pact comes into force when both the parties have signed it. It expires for the Contractor 12 months after the final payment under the respective contract, and for all other Bidders 3 months after the contract is awarded.

13.2 That if any claim is made/ lodged during this period, the same shall be binding and continue to be valid despite the lapse of this Pact as specified herein before, unless it is discharged/ determined by Chairman cum Managing Director of the Authority.

13.3 That should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

Company Code of Conduct

Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribe and other unethical behavior) and a compliance program for the implementation of the code of conduct throughout the company.

The parties hereby sign this Integrity Pact at on

AUTHORITY:	BIDDER:
Name of the Officer: Designation Witness	Name (Authorized Signatory): Designation: Witness:

Annexure-G: Non-Disclosure Agreement (NDA)

(To be made on Stamp Paper of value INR 100)

THIS NON-DISCLOSURE Agreement made at Bengaluru, India on this 2nd day of May 2024 between NewSpace India Limited a company registered under the Companies Act, 2013 and having its registered office at ISRO HQ Campus, Bengaluru – 560 094 (hereinafter referred to as “NSIL”) and _____ a company registered under the Companies Act, 2013 and having its registered office _____, India (hereinafter referred to as “_____”).

NSIL and shall hereinafter be collectively referred to as “the Parties” and individually as “a Party”.

WHEREAS

A. NSIL has floated a tender and is required to provide certain information to “**Bidder Name**” execute the Rate contract and specific supply order

B. The Parties intend that the aforesaid information be kept confidential as between the Parties. The Parties undertake and declare that they shall not divulge, publish or reproduce the same before any party or person except in accordance with the terms of this Agreement.

NOW THEREFORE the parties agree as follows

1. As used in this Agreement (hereinafter referred to as the “Agreement”) the term “Confidential Information” shall mean any technical, confidential, proprietary or trade secret information or data disclosed by the Disclosing Party in connection with the Project to the Receiving Party including without limitation any written or printed documents, specifications, designs, technical details, facility layouts, general arrangement plans, production schedules, drawings, samples, models, information regarding operations, financial information, strategies, either in writing or orally or any means of disclosing such Confidential Information that the Disclosing Party may elect to use prior to the execution or during the validity of this Agreement. The Receiving Party agrees that all Confidential Information shall be treated as absolute confidential and the Receiving Party shall not disclose to any person such information otherwise than in terms of this agreement. The receiving Party will impose a similar duty of confidentiality on any employee to whom the Receiving Party is permitted to transfer such information in accordance with the terms hereof. For the purposes of this Agreement, the term “Receiving Party” shall mean and include its officers, employees, directors, agents, contractors, representatives, affiliated companies, successors and assigns provided any claim in connection with the Agreement shall only be made against _____(the receiving party).
2. Nothing in this Agreement may be construed as compelling the Disclosing Party to disclose any Confidential Information to the Receiving Party or to enter into any contractual relationships with the Receiving Party.
3. Any information or data in whatever form disclosed by the Disclosing Party to the Receiving Party and which (i) is clearly identified as Confidential Information by an appropriate and conspicuous marking or (ii) has been identified as Confidential Information at the time of disclosure shall be subject to the relevant terms and conditions of this Agreement. The Disclosing Party’s decision whether any information disclosed by it under this Agreement is confidential or not shall be final and binding on the Receiving Party.
4. The Receiving Party hereby covenants that the Confidential Information received from the Disclosing Party shall:
 - (a) Be safely kept by the Receiving Party; the Receiving Party shall protect the Confidential Information with the same degree of care as the Receiving Party uses with its own confidential

- information in order to prevent its disclosure, copy and / or its use (but in no event less than reasonable care) for purposes other than the Proposal.
- (b) Be only disclosed to, and used by, those employees or directors who have a need to know.
 - (c) Not be disclosed to a third party except those with a need to know provided they receive such information subject to the same restrictions as are contained in this Agreement.
 - (d) Be used by the Receiving Party directly or indirectly, solely for the purpose of execution of the project
5. The Receiving Party shall promptly upon requests by the Disclosing Party at any time return all copies of the Confidential Information communicated to it hereunder together with all copies and extracts made thereof and shall not retain any copies of the same, in any form whatsoever except for one copy for its professional records purposes subject to confidentiality obligations herein.
6. The Receiving Party shall have no obligations or restrictions with respect to:
- (a) Information publicly known through no wrongful act of the Receiving Party.
 - (b) Information rightfully disclosed by a third party without breach of this Agreement by the Receiving Party and which can be communicated without restriction.
 - (c) Information which was already known, or which was independently developed by the Receiving Party (provided that the Receiving Party can demonstrate the same).
 - (d) Information, the disclosure of which the Disclosing Party authorizes in writing.
7. Nothing in this Agreement shall be construed as granting to the Receiving Party any patent, copyright or design license, or rights of use under similar intellectual property rights in respect of the Confidential Information.
8. The Receiving Party shall not without prior written consent of the Disclosing Party:
- (a) Disclose to any person, directly or indirectly;
 - (b) The fact that the Confidential Information has been made available to the Receiving Party by the Disclosing Party or that the Receiving Party has inspected any portion of the Confidential Information; or
 - (c) The fact that any discussion or negotiation is taking place concerning the Project; or
 - (d) Any of the terms, conditions or other facts with respect to the Project, including the status thereof; or
 - (e) Make any private or public announcement or statement concerning or relating to the Project.
9. The Disclosing Party represents and warrants that save as otherwise notified in writing to the Receiving Party:
- (a) Disclosure of information by it to the Receiving Party does not infringe the rights of any third party nor is it under any restriction with regard to the disclosure of any information, and that where applicable, it has obtained all licenses and consents necessary to enable the lawful disclosure of information by it to the Recipient; and.
 - (b) It is not aware of any restriction on the use of such information by the Receiving Party, save as provided in this Agreement.
 - (c) To the effect that the foregoing representations and warranties shall be deemed to be given at the date of this Agreement and after that date upon and in respect of each disclosure. The Disclosing Party makes no warranty or representation whatsoever as to the accuracy, completeness, suitability or adequacy of any information or as to the results obtained from it and assumes no responsibility in respect of the use of the information by the Receiving Party.
10. The Receiving Party shall be liable to the Disclosing Party for such loss, damage, costs, expenses or liabilities arising out of any such action, claim or proceeding, brought by any third party pursuant to any unauthorized disclosure or use of any information by the Receiving Party, or by

any person for whom the Receiving Party is responsible under this Agreement, or pursuant to any breach of any undertaking, warranty or representation contained in this Agreement as awarded by a court of competent jurisdiction. The Disclosing party will revoke the bank guarantee in case of any breach.

11. For the purposes of this Agreement ‘Classified Information’ shall mean information, documents and material of any kind which the respective Government i.e. Indian Government has given or caused to be given a security classification irrespective of whether the same is transmitted orally, electronically, in writing or by hand. Notwithstanding any other provision of this Agreement:
 - (a) Each Party hereto undertakes to follow security procedures prescribed for military purposes with respect to disclosure, receipt, production, use and handling of Classified Information as notified by Disclosing Party.
 - (b) Any Classified Information, disclosed by one Party hereto shall be, whatever the method of disclosure be, identified by the Disclosing Party as Classified Information at the time of disclosure.
 - (c) The provisions of this Clause are to remain in full force and effect notwithstanding any termination by expiration or otherwise of this Agreement.
12. In the event the Receiving Party is required to disclose Confidential Information under any provision of law or upon an action, subpoena or order of a court of competent jurisdiction or of any requirement of legal process regulation or governmental order, decree, regulation or rule, the Receiving Party will immediately notify the Disclosing Party of its having received a request to so disclose (along with the terms and circumstances thereof), unless otherwise prohibited by law and consult with the Disclosing Party on action or steps to be taken in response to such request.
13. This Agreement shall be valid for a period of three years from the date of its execution between the parties. Notwithstanding the aforesaid, the obligations of Parties in connection with confidentiality under this Agreement shall survive in perpetuity.
14. The foregoing constitutes the entire Agreement between the Parties with respect to the subject matter hereof and supersedes and cancels any prior representation, understanding and commitment (whether oral and written) made between the Parties with respect to or in connection with any of the matter of things to which this Agreement applies.
15. This Agreement shall be governed by and shall be interpreted in accordance with the laws of India.
16. Any dispute arising in connection with or out of the validity, performance or the interpretation of this Agreement shall be finally settled by the competent jurisdiction in Bengaluru.
17. The Receiving Party acknowledges that any breach of the terms and conditions of this Agreement may cause the Disclosing Party irreparable damage for which recovery of money damages would be inadequate. Therefore, the Receiving Party agrees that the Disclosing Party shall be entitled, in addition to any other remedies available to it, to seek injunctive relief and/or other equitable relief to prevent or restrain any breach by the Receiving Party or its employees/officials, or otherwise to protect its rights, under this Agreement.
18. Unless otherwise provided herein, all notices or other communications under or in connection with this Agreement shall be given in writing and may be sent by personal delivery or post or courier or facsimile at the address as specified herein below:

To NSIL		To M/s	
Address		Address	
Phone No		Phone No	



E-mail

E-mail

Any such notice or other communication will be deemed to be effective if sent by personal delivery, when delivered, if sent by post, 4 (four) days after being deposited in the post and if sent by courier, one day after being deposited with the courier, and if sent by facsimile, when sent (on receipt of a confirmation to the correct facsimile number).

IN WITNESS WHEREOF, this Agreement is executed by authorized representatives of both the Parties in two (2) originals.

Signed by the within M/s _____

Signed by the within M/s NSIL

In the presence of

In the presence of