

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
ISRO TELEMETRY TRACKING & COMMAND NETWORK (ISTRAC)
BANGALORE**

Tender for SCC and ASCC LCK Storage

Bids to be submitted online

Tender No.: ISTRAC/ISTRAC PURCHASE/TR202200031401 dated 29-12-2022

A. Tender Details

Tender No :	ISTRAC/ISTRAC PURCHASE/TR202200031401
Tender Date :	29-12-2022
Tender Classification:	GOODS
Purchase Entity :	ISTRAC PURCHASE
Centre :	ISRO TELEMETRY TRACKING & COMMAND NETWORK (ISTRAC)

SCC and ASCC LCK Storage

Note: This is a Public tender single part basis. Please provide your Compliance for Performance Bank Guarantee clause, Liquidated Damages clause and Security Deposit clause and other terms & conditions of the Tender Enquiry.

A.1 Tender Schedule

Bid Submission Start Date :	29-12-2022 10:00
Bid Clarification Due Date :	20-01-2023 17:00
Bid Submission Due Date :	13-02-2023 17:00
Bid Opening Date :	14-02-2023 10:00

B. Tender Attachments

NA

Instructions To Vendors

1. INSTRUCTIONS TO TENDERERS FOR ONLINE SUBMISSION OF TENDERS THROUGH E-PROCUREMENT SYSTEM

1. a) Bidders shall arrange themselves all resources, including Digital signature certificates and Internet Connections at their own cost, for participating in online tendering.
- b) Vendors can download the tender details and submit their offers online using their vendor accounts (obtained during registration) in our portal. Help demos for tender download and bidding processes are given on home page.
- c) The tender should be submitted online in the ISTRAC link before the due date and time as specified in the tender schedule in the portal.
- d) Vendors shall also take note of other Instructions to tenderers indicated in the tender documents.

2. Conditions for online submission of tenders:

- a) It is mandatory for interested parties to register as vendors in our e-procurement portal <https://eproc.vssc.gov.in/home.html> for participating in online eProcurement process of ISRO. Only registered vendors can submit their offers online in our eProcurement portal.
- b) Vendors who are already registered in the existing EGPS software of ISRO, please register by clicking the link in the email you would have already received from 'eproc@vssc.gov.in'. After registration, do the profile update by login to this portal.
- c) For new vendors, who are not registered in the existing EGPS software, vendor registration will be released along with the portal release. To register as vendors please refer to the help demos listed on the home page of the e-procurement link mentioned above. They may approach help desk (contact details provided on the home page) for any technical help for registration and subsequent process.
- d) OEM details should be added in your E-Procurement profile under Add Agent/Principal without fail.

3. ISTRAC shall not be responsible for failure of vendors in submitting bids online caused due to technical reasons at vendor end such as network or power failures, computer failure, internet-browser, mistakes / errors in filling the bids on line by vendor etc.

4. Procedure for seeking clarifications/help for the tender:

- a) All enquiries regarding the tenders and submission of offers shall be online and only through our eProcurement portal.
- b) Vendors may approach help desk e-mail id and phone number given on the home page for any technical help (e-mail: eproc@vssc.gov.in and Phone: +91471 2565454/4574/2527/3753/3289).

5. Queries by vendors on technical problems on the last day of tender will not be binding on ISTRAC/ISRO for resolving/addressing. ISTRAC will not be responsible for non-submission of bids for those cases.

2. TENDER TERMS AND CONDITIONS

1. All information in Vendor Specified Terms shall be provided without fail to avoid unnecessary correspondence / delay in process. The same should reach before technical bid opening date and time without fail.

2. As per Rule 144(xi) of General Financial Rules, 2017, any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority (i.e., Department for Promotion of Industry and Internal Trade) in line with Order (Public Procurement No. 1, 2 and 3) dated 23/07/2020 and 24/07/2020 or any amendments thereon issued by the Public Procurement Division, Department of Expenditure, Ministry of Finance. Hence, Vendors or Agents of a Vendor (Indian or Others) from a country sharing border with India shall submit the copy of Valid Registration made with DPIIT along with the tender mandatorily, without which the offer will be treated as invalid.

3. a) Order no: F.No.6/18/2019 PPD dated 23.07.2020 of Department of Expenditure), Ministry of Finance Under Public procurement division for the General Financial rule (GFRs).

4. b) Class I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50%, as defined under order.

5. c) Class II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order.

6. d) Bidders offering imported products will fall under the category of Non-local suppliers. They cannot claim themselves as Class I Local suppliers/Class II Local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as local value addition.

7. e) Verification of local content: i) The Class I local supplier/ Class II local supplier at the time to tender, bidding or solicitation shall be required to indicate percentage of local content and provide self certification that the item offered meets the local content requirement for Class I local supplier / Class II local supplier as the case may be. They shall also give details of the location(s) at which the local value addition is made.

8. A supplier who has been debarred by any procuring entity for violation of this order shall not be eligible for preference under this order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed.

9. Delivery Terms: FOR ISTRAC

10. GENERAL TERMS & CONDITIONS FOR BIDDERS: For this procurement, bids from Class I, class II and Non-Local Suppliers are admissible. Provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DIPP), Ministry of Commerce & Industries vide letter No. P 45021/2/2017 PP(BE II) dated 04.06.2020 and subsequent amendment & directives shall be followed. Accordingly, offer will be evaluated & processed in conformation with above referred GOI order (Specially mentioned below). The bidder shall provide compliance and undertaking as per order and hereafter amendments:

11. If an agent submit bid on behalf of the principal/OEM, the same agent shall not submit a bid on behalf of another principal/OEM in this tender for the same item. If submitted, all offers will be liable for rejection.

12. iii) False declarations will be in breach of the code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules (GFR) 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.

13. ii) In case bid value is in excess of Rs. 10 Cr., Class I local supplier/ Class II local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

14. In case the bidders propose any other payment terms in deviation with the standard terms mentioned in the tender enquiry, it may be noted that applicable cash flow implications will be loaded on the prices quoted for commercial comparison of the offers. If advance payments are insisted by the bidders, interest at the rate of MCLR (Marginal Cost Linked Rate) as notified by State Bank of India from time to time shall be loaded on the prices for price comparison.

15. In this tender either the Indian agent on behalf of the principal/OEM or the principal /OEM itself can bid, but both cannot bid simultaneously for the same item. Indian agents while quoting on behalf of their principals shall provide necessary latest authorisation letter obtained from their principals/manufacturers.

16. Liquidated damages: If the vendor fails to deliver the items on or before the delivery date, or any

extension thereafter purchaser shall recover from the vendor as liquidated damages a sum of 0.5% of the contract price of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed 10% of the contract price of the unit or units so delayed.

17. Model Certificate for Tenders: I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

18. Model Certificates for Tenders for Work involving possibility of sub contacting: I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub contracting to contracting from such countries I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub contract any work to a contract form such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. Provide Compliance for the above in Vendor Specified Commercial Terms.

19. NO EMD AND TENDER FEE.

20. Performance Bank Guarantee (PBG) to be furnished as a security for fulfilment of warranty obligations by the successful vendor after satisfactory execution of purchase order/Contract (3% of the value of the purchase order/Contract). Central SUs/PSE/Autonomous bodies are exempted from the production of Performance Bank Guarantee. Instead; an indemnity bond shall be furnished in lieu of PBG.

21. Product Scope: Class I local supplier/ Class II local supplier shall offer only standard and catalogued product for Equipment / Spares Cards / assemblies. If the above offered Equipment / Cards / Assemblies are under development / to be developed the bid will not be considered.

22. PUBLICITY: No publicity of any kind whatsoever in case of PURCHASE ORDER shall be given by the Supplier without prior permission of the Purchaser.

23. SECRECY: The technical information, drawings, specifications and other related documents, forming part of the CONTRACT, are the property of the Purchaser and shall not be used for any other purpose, except for execution of the CONTRACT. All rights, including rights in the event of grant of patent and registration of designs are reserved. The technical information, drawings, specifications, records and other documents shall not be copied, transcribed, traced or reproduced in any other form or otherwise in whole and/or duplicated, modified, divulged and/or disclosed to a third party nor misused in any other form whatsoever without Purchasers consent in writing except to the extent required for the execution of this CONTRACT. These technical informations, drawings, specifications and other related documents shall be returned to the Purchaser with approved copies and duplicates, if

any, immediately after they have been used for the agreed purpose.

24. Senior Purchase and Stores Officer, ISTRAC, reserves the right to accept or reject any/or all the tenders in part or full without assigning any reasons thereof.

25. Submit the bid on or before due date.

26. Successful vendor has to submit the security deposit. (3 % of the value of the purchase order). Central PSUs/PSE/Autonomous bodies shall be exempted from the payment of security deposit, and instead, an indemnity bond shall be secured from them.

27. VENDORS HAS TO REFLECT THE POINT NO (4), (5) AND (6) IN THEIR BID.

28. TAXES: GST is payable as per applicable rates.

3. PROFORMA FOR INSTRUCTIONS TO TENDERERS AND TERMS & CONDITIONS OF TENDER

1. a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.

(b) Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of nonacceptance of tender, the tenderer will have to remove the samples at his own expense.

(c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.

(d) Specifications: Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.

2. ACCEPTANCE OF STORES: (a) The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractor's own risk, expense and cost. (b) It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval by the purchaser, whose decision shall be final. (c) If, in the opinion of the purchaser, all or any of the stores do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor. (d) If the whole or any part of the stores supplied are rejected in accordance with Clause No. (c) above, the purchaser shall be at liberty, with or without notice to the Contractor, to purchase in the open market at the expense of the

Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

3. ARBITRATION : All disputes, differences, claims and demands arising under or pursuant to or touching this agreement shall be referred to Arbitration of a sole Arbitrator to be appointed by the Director, ISTRAC, whose decision/award will be final and binding on both the parties. Such arbitration shall be held in Bangalore and shall be subject to and governed by the provisions of the Arbitration and Conciliation Act of 1996 or any statutory modification or re-enactment thereof. The language to be used in Arbitration is English only.

4. As a Government of India Department, this office is exempted from payment of Octroi and similar local levies. Tenderers shall ensure that necessary Exemption Certificates are obtained by them from the Purchase Officer concerned to avoid any payment of such levies.

5. a) Your offer should be valid for 120 days from the date of opening of the tender. b) Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.

6. CUSTOMS DUTY : This office is eligible for Concessional Customs Duty @ 5.5% against Ministry of Finance, Department of Revenue, Government of India, vide Customs Notification No.51/96-Cus Dated 23-07-1996 (Sl.No.1) and amended under Notification No.93/96 dated 11th December 1996 and 24/2002 dated 01-03-2002

7. DESPATCH: The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods despatched. The consignment should be despatched with clear Railway Receipt/Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on 'said to contain' basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract.

8. TAXES: GST is payable as per applicable rates.

9. GUARANTEE & REPLACEMENT: (a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance. (b) Warranty shall be for the period mentioned in the tender document. After the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within the warranty period, by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty. (c) If, in the opinion of the purchaser, it

becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of warranty from the date of acceptance thereof. (d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores. (e) The decision of the Purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the Purchaser, as to whether or not the Stores supplied by the Contractor are defective or any defect has developed within the said period of warranty or any other period or as to whether the nature of defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor. (f) To fulfill guarantee conditions outlined in (a) to (e) above, the Contractor shall, at the option of the Purchaser, furnish a Bank Guarantee (as prescribed by the Purchaser)

10. If the IGST is applicable, the same will be reimbursed if it is reflected in Bill Of Entry. Proof shall be provided while claiming payment.

11. It is to be noted that either Customs Duty or GST is applicable (any one)

12. JURISDICTION : The contract/ purchase order shall be governed by an interpreted and construed in accordance with the laws of India. The courts situated at Bangalore only shall have jurisdiction to deal with and decide any legal matter or dispute arising out of contract/ purchase order.

13. PACKING FORWARDING & INSURANCE: The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

14. Please provide your compliance for Security Deposit, Performance Bank Guarantee and Liquidated Damages Clause.

15. PRICES: Tender offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variation/s.

16. REJECTED STORES: Rejected stores will remain at destination at the Contractor's risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractor's address at the

Contractor's entire risk and expense, freight being payable by the Contractor at actuals.

17. Sales Tax and/or other duties/levies legally leviable and intended to be claimed should be mentioned in the price bid template. If nothing is mentioned, then it will be presumed that the rate quoted is inclusive of all taxes/duties.

18. SECURITY DEPOSIT: Wherever, the Purchase Order value is Rs. 5.00 Lakhs or more, on acceptance of the tender, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding ten percent of the value of the Contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit, 'Security' and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the re-purchase of the stores Contracted at the risk of the Contractor in terms of Sub-Clause (ii) and (iii) of clause regarding Delivery. (b) hereof and/or to recover from the Contractor, damages arising from such cancellation.

19. SETTLEMENT OF DISPUTES : Except as otherwise specifically provided in the contract, all disputes concerning question of fact arising under the Contract shall be decided by the Purchaser subject to a written appeal by the Contractor to the Purchaser whose decision shall be final to the parties hereto. Any disputes or differences including those considered as such by only one of the parties arising out of or in connection with the Contract shall be, to the extent possible, settled amicably between the parties. If amicable settlement cannot be reached, then all disputes shall be settled by arbitration.

20. TERMS & CONDITIONS OF TENDER

21. TEST CERTIFICATE: Wherever required, test certificates should be sent along with the despatch documents.

22. The authority of the person signing the tender, if called for, should be produced.

23. The Purchaser reserves the right to place order on the successful tenderer for additional quantity up to 25% of the quantity offered by them at the rates quoted.

24. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderers shall supply the same at the rates quoted.

25. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income-Tax clearance certificate duly countersigned by the Income-Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.

26. The term Contractor shall mean, the person, firm or company with whom or with which the order for the supply of Stores is placed and shall be deemed to include the Contractor's successors, representative, heirs, executors and administrators unless excluded by the Contract.

27. The term Purchase Order shall mean the communication signed on behalf of the Purchaser by an Officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

28. The term Purchaser shall mean the President of India or his successors or assigns.

29. The term "Stores" shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants & machinery and subsequent testing, should such a condition is included in the Purchase Order.

4. CERTIFICATE OF UNDERTAKING

1. A certificate from the bidder shall be enclosed along with their quotation (Technical bid) as per the format enclosed.

2. An AGENT is a person employed to do any act for another, or to represent another in dealings with third person.

3. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. (Competent authority is : DEPARTMENT FOR PROMOTION OF INDUSTRY AND INTERNAL TRADE (DPIIT)).

4. (b)Control shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements.

5. Bidder from a country which shares a land border with India for the purpose means:

(a)An entity incorporated, established or registered in such a country; or

(b)A subsidiary of an entity incorporated, established or registered in such a country; or

(c)An entity substantially controlled through entities incorporated, established or registered in a such a country; or

(d)An entity whose beneficial owner is situated in such a country; or

(e)An Indian (or other) agent of such an entity; or

(f)A natural person who is a citizen of such a country; or

(g)A consortium or joint venture where any member of the consortium or joint venture falls under any of

the above.

6. BIDDER (including the term tenderer, consultant or service provider in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

7. CERTIFICATE

8.

COMPANY NAME AND SEAL:

9. DESIGNATION:

10. Explanation:

(a)Controlling Ownership interest means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company;

11. GOVERNMENT OF INDIA

DEPARTMENT OF SPACE

ISTRAC, BENGALURU: 560 058.

12. iii)In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals.

13. (iii).I/We _____hereby undertake that if the Certificate is found to be false at any given time ISRO/ISTRAC may treat this as a ground for immediate termination and further legal action in accordance with law can be initiated.

14. ii)In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting

alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.

15. (ii).I/We hereby confirm that the country of origin of goods is _____

16. i)In case of a company or Limited Liability Partnership, the beneficial owner is a natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

17. (i).I/WE _____ read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I / We _____ Certify that this bidder is not from such a country.

18. iv)Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official.

19. I / We _____ Certify that this bidder is from such a country and registered with the Competent Authority (i.e. Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT). Copy of Registration Certificate is enclosed.

20. NAME:

21. OR*

I/We _____ read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India.

22. Ref:Tender No _____ date _____

Our Quotation No. _____ date _____

23. REQUIREMENT OF REGISTRATION:

24. SIGNATURE:

25. (* Strike out whichever is not applicable).

26. Subject: Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs) 2017 - reg.

27. The beneficial owner for the purpose of (6) above will be as under:

28. (TO BE PRINTED ON THE LETTER HEAD OF THE VENDOR)

29. v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

5. MAKE IN INDIA UNDERTAKING (VENDORS SHALL SUBMIT THE BELOW CERTIFICATE ON THEIR LETTER HEAD DULY SIGNED)

1. The type of Class which the vendor belongs: Class-I or Class-II Local Suppliers as defined under DPIIT Order dtd 04/06/2020- Preference to Make in India Order-2017 Revision. (Class I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50% & Class II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%). NOTE: Bidders offering imported products will fall under the category of Non-local suppliers. They cannot claim themselves as Class I Local suppliers/Class II Local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as local value addition.

2. Percentage of local content for the quoted item.

3. Details of location (s) at which the local value addition is made

4. Provide self-certification that the item (s) offered meets the local content requirement for Class-I/Class-II Local Suppliers as the case may be.

C. Bid Templates

C.1 Technical Bid - SCC and ASCC LCK Storage

1. NAS Storage 250 TB

Item specifications for NAS Storage

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Quantity	Config-1: High Available Unified Storage 250 TB - 01 No ISTRAC shall decide the final quantity before placing the order	Yes / No / Explain		
2	General Information	Configuration-1 Storage solution shall consist of 250 TB High Available Unified Storage which will be deployed at Bangalore, Peenya. This storage to be delivered at ISTRAC, Bangalore. The scope of the system Integrator/vendor shall include the system delivery as per specification, Installation and commissioning, onsite performance testing complete implementation of the storage solution with onsite support as per specification.	Yes / No / Explain		

3	General Specification	<p>Vendor shall offer an Unified Storage which supports out of the box capability for different storage protocol under a single management console</p> <ul style="list-style-type: none"> •Vendor should quote the entire solution from the same product family of a single manufacturer. The Unified Storage Operating System should be owned by the Storage Hardware Manufacturer. 	Yes / No / Explain		
4	Physical	19 inch Rack mountable Storage hardware rack mount kit shall be offered	Yes / No / Explain		

5	High Availability Features	<p>The offered solution should be configured with no single point of failure (NSPoF). The offered solution should be configured with dual controllers which supports Active-Active mode. The offered solution should provide session/cache information replication across the controllers to support faster failover across the controllers. It should retain the state information of the active transactions during a controller failover event.</p> <p>During controller failover shall complete well with in before the client nodes detect filesystem or storage block is unavailable. Storage which requires remounting of file system or block storage during controller failover event should not be offered.</p> <p>•Any maintenance activity on the storage, controller OS upgradation, and file system expansion should be performed online without downtime. Any maintenance activity should be non-destructive for the stored data.</p>	Yes / No / Explain		
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6	Protocol Support	The storage controller should be offered with NFS (v3, v4, v4.1 support), FC, CIFS & iSCSI protocol support. If any additional hardware software is required to support all the required protocol then should be offered in redundancy to ensure NSPoF	Yes / No / Explain		
7	Disk Enclosure	The Disk enclosures shall be offered with sufficient capacity to house required number of disks. The disks offered should be 12Gbps dual ported drives The disk enclosure shall be configured with required interconnection cables to have connectivity with both the controller to avoid single point of failure. The disk enclosure shall be configured with hot swappable redundant power supply and fan tray	Yes / No / Explain		
8	Scalability	The offered storage solution shall be scalable up to 400 drives The unified proposed system should be field upgradeable to a higher model through data-in-place upgrades.	Yes / No / Explain		

9	Storage Solution Features and Architecture	<ul style="list-style-type: none"> •The unified storage architecture should be based upon dedicated appliance, running specialized operating system optimized for storage operations. •The host operating system in the controller should be strictly based on Unix/Linux based kernel with a specialized environment built to support high performance file service. The storage operating system should not be based on general purpose OS. •The proposed NAS storage architecture should not be based upon file services running on general purpose OS and conventional server hardware. •The storage should be able to provide single name space/file system for configured capacity and should be scalable upto 256 TB •The controller NAS operating system should be protected by RAID. •The controller should support creating disk groups in different RAID levels viz., mirroring, single parity and dual parity or equivalent data protection technologies •Each controller should be configured with at least 32 GB of memory. •The system should be configured with minimum 4 TB of SSD/Flash/NVMe based cache for accelerating the 	Yes / No / Explain		
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performance. This SSD or NVMe based pool will not be part of file system.

- Storage Controller should be capable of supporting a single LUN of size of at least 16 TB.
- Controllers should support different disk drives viz., SSD, SAS, NL-SAS.
- It should be possible to grow the file system online.
- It should be possible to grow the disk pool online to grow the file system.
- The storage should support data tiering with real-time movement of hot data to high performing drives. It should offer the capability to move data between one tier of drives to another tier of drives.
- The controller cache should support battery backup option or equivalent technology to protect uncommitted data against power failure.
- The controller should be configured for point in time images or snapshots and applicable licensing should be offered. It should be possible to take at least 64 snapshots per file system.
- Proposed storage shall support compression and required license shall be offered.
- The proposed storage array must support data at rest encryption offering industry standard certification/compliance. The storage array may implement

data at rest encryption using self-encrypting drives or controller based functionality there by not impacting performance.

- The controller should have DE-duplication & compression features for file system access and necessary licensing for the offered solution should be included.
- It should be possible to configure quotas on the user, volume and directory level.
- The storage controller shall be licensed for partitioning / virtual controller / feature for multitenant environment. It should be possible to partition the storage and the network resources and assign it to different virtual storage domain. Each virtual storage can be managed as independent storage zone with required controls and rights delegation by storage administrator.
- Storage controller shall support NDMP for backup and restore operation.
- Shall support LDAP and Active Directory integration

10	Management Software	<ul style="list-style-type: none"> •The software for managing the storage device should be Web GUI based or CLI. •Storage administrator console shall be protected by multi-factor authentication •The proposed management interface should be able to manage, configure and monitor the environment. •Single management, easy to use GUI based and web enabled administration interface for configuration, storage management and performance analysis tools for both block and file. •The interface shall allow to manage the entire storage solution from single interface which allows - Storage Management, Cluster Management, DR Configuration Management. •The management console shall allow to generate reports on block and file access for a given duration for per node, per user, per volume on a specific administrative domain. •Audit Trail Capability – The Storage solution shall offer suitable solution to retain detailed of NFS Transaction Log to record every file access on the shared file system. The audit log shall 	Yes / No / Explain		
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		include access time stamp, client node ip, mode of access (read or write) and user information. This log shall be retained at least for last 72 hours and shall be in searchable format. Vendor shall offer required resources for capturing this information.			
11	Power	<ul style="list-style-type: none"> •The offered storage solution should be supplied with hot swappable redundant power supply units, for all the components (Storage Controller, desk Shelves) •Power Supply rating: 220 volt/50 Hz. •Required power cable shall be offered with the storage. 	Yes / No / Explain		

12	Compliance Specific to Foreign Make Products –	<p>Foreign make products shall match the following certifications and compliances (This section is applicable only for Foreign make products)</p> <ul style="list-style-type: none"> •RoHS and WEEE •FCC Class A or EMC compatibility as per US and European standards •CE Compliant or Safety compliance as per US and European standards •Power supply – Platinum rated (80 Plus Platinum) •Security Compliance – OEM signed image verification •The offered product or Storage Operating system must be certified with EAL2[Evaluation Assurance Level] or NIAP/CCEVS [National Information Assurance Partnership / Common Criteria Evaluation & Validation Scheme]. <p>Make in India product – Make in India product shall match the following certifications and compliances (This section is applicable only for Make in India products) –</p> <ul style="list-style-type: none"> •RoHS India [E-Waste (Management) Rules, 2016] certification Compliance to BIS norms for safety standard IS 13252:2010 or equivalent BIS standard •Energy Star 6.1 or 	Yes / No / Explain		
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		equivalent – As per Bureau of Energy Efficiency, Govt of India Guideline for Computer/ Hardware •Valid Indian Common Criteria Certification Scheme (IC3S) for EAL2 or better for the offer product or offered version of firmware			
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13	Disk Shelve and Performance requirement	<ul style="list-style-type: none"> •The usable storage capacity of 250 TB at the file system level should be offered. The offered capacity shall have 247TB NL-SAS and 3 TB on SSD. •Vendor should note that the capacity mentioned above is the usable/workable capacity at the file system level. Vendor should quote for appropriate configuration considering the spares and RAID configuration. Vendor should consider maximum 12 drives in a RAID group offering 3 disk protection per RIAD group. If the solution does not offer 3 Disk protection capability, the solution should be designed with equivalent numbers of disks in global hot spare. The detailed breakup on the disk count to be provided along with the proposal. •The SSD pool can be offered on RAID 6 or on RAID 1 with two global hot spare. •Vendor should demonstrate the usable capacity on a Linux NFS client using standard Linux commands like "du -sh". •A detailed calculation in arriving at the number of disks to meet the usable storage requirement of 250 TB should be provided along with the offer. •Vendor shall include 20% of disk space as file system snapshot reserve area in the file 	Yes / No / Explain		
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system calculation.
The usable capacity shall be derived excluding snapshot reserve area in the file system.
•The storage enclosure shall be populated with maximum 16 TB Enterprise NL-SAS and maximum 960 GB SSD as performance drive.
The vendor can offer lower capacity disk.
•If vendor is offering higher capacity disk than specified above the total number of disk count shall be as per 16 TB NL SAS and 960GB SSD disk. Vendor has to offer disks counts accordingly and licenses shall be extended for full capacity.

Performance for Config-1 Storage:
•The offered storage controller (each controller) shall support minimum throughput of 230000 IOPS with 8K block size at 80% read and 20% write with NFS
•Bandwidth – 3 GBps with 32 K block size at 80% read and 20% write with NFS.

Interfaces / Ports per Controller –
•Each storage controller should be configured following network ports
o1G Copper Ethernet 8 Nos
o10 G Fiber Ethernet (10 G SR LC Type) – 4 Nos
•FC Port – Each storage controller should also be

		<p>configured with two 16 Gb FC port with transceiver (SR type) for connecting to the SAN switch for backup and for providing block access.</p> <ul style="list-style-type: none">•Required network cables and FC cables to be offered (5 Meter Length).			
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14	Product Feature Evaluation in Remote access mode	<ul style="list-style-type: none"> •The vendor/OEM shall offer similar storage product in remote access mode over Internet for ISTRAC engineers to evaluate the features of the offered product during technical evaluation of the offer •The offered product for evaluation shall be of same product line with similar storage operating system version with required licenses . •If multiple vendor offers same OEM product on similar BOM, a single remote access offered directly from OEM shall be asked for evaluation of the product •ISTRAC will need access to the storage product for management console and two NFS clients on the network to evaluate the product features. •Vendor shall ensure ISTRAC team has remote access to storage controller management console, storage controller logs, client device and logs. ISTRAC shall evaluate high availability feature, multi-tenancy feature etc for the product and suitable configuration shall be offered. •ISTRAC will communicate to the Vendor on specific feature sets which ISTRAC would like to evaluate on the offered product. The selection of the specific product features will be 	Yes / No / Explain		
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decided by ISTRAC during the technical evaluation process.

- ISTRAC will decide the demonstration requirement of feature sets across OEM products and the requirement will vary based on OEM product.
- Vendor shall assist ISTRAC team in configuration and demonstration of product features.
- Vendor shall keep all the required resource ready for remote evaluation during quoting for this tender. The remote lab configuration diagram, access credentials and access methods shall be shared along with the technical offer. The vendor shall enable remote access immediately after receipt of the email communication via ISTRAC purchase.
- In case the vendor or OEM is not able to successful demonstration of the feature with-in a weeks time after receipt of the requirement, ISTRAC will not accept any further request for extension or re-evaluation of the feature demonstration activity.
- The outcome of the feature demonstration will be based on the decision of the ISTRAC technical team.

15	Quality Requirements	<ul style="list-style-type: none"> •The design and production of critical subsystems like system board, controllers etc., shall be under the control of manufacturer & international quality certified realization process •All subsystems of the system shall have been selected to achieve optimal performance and high reliability. •The system architecture shall ensure maximum performance for data forwarding. The subsystems, the processor boards, the interconnections among subsystems and the software shall be properly matched to ensure maximum performance •Systems shall be only from a proven product line from highly reputed manufacturers. The product line shall be an internationally established brand reputed for high quality and with wide acceptance in deployment for mission critical and business critical functions in the industry. •The manufacturer of the system shall be in total control of the lifecycle (Design, release, support, obsolescence and termination of the critical subsystems like motherboard, controllers etc.,) of the product. 	Yes / No / Explain		
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16	Installation and Commissioning	<ul style="list-style-type: none"> •Vendor should install & commission the systems as per the configuration at ISTRAC sites in Bangalore and Lucknow •Vendor should provide detailed documentation on the implementation as a part of solution implementation activity. •System installation, commissioning is the sole responsibility of the vendor. It includes the installation of all hardware, operating System, configuring the storage solution and configuring the backup solution as per ISTRAC's requirement. •At the time of installation and commissioning of the configuration if it is found that some additional hardware accessories or software items with licenses are required to complete the configuration to meet the operational requirement of the configuration 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 to ISTRAC. Vendor should ensure completeness of the list of deliverables in the offer to avoid such discovery during installation. <p>OEM Professional Service</p> <ul style="list-style-type: none"> •The Storage OEM must engage 	Yes / No / Explain		
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		<p>engineer(s) from its professional service team to perform High Level Designing, Low Level Designing, migration methodology and acceptance testing with proper documentation. Any supporting network artefacts/documents should be provided along with for the proposed solution.</p> <ul style="list-style-type: none">•All the products (Bangalore and Lucknow) must be deployed under the supervision of the Professional Service.•OEM Professional Service to do proper handover with knowledge transfer for the deployed network with the purchaser.•OEM must also allocate a project manager till handover of the implementation is completed.•Required part number for Professional Service to be quoted in the BOM			
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17	Acceptance test	<p>The system Integrator/Vendor along with system integrator has to conduct the functional acceptance test of all the hardware and software elements as per specification at user site at Bangalore and Lucknow.</p> <p>Vendor has to generate an acceptance test report based on functional test conducted mentioning the specific configuration with diagram wherever required and verification of the feature set, commands used and by capturing the screenshots as evidence.</p> <p>Acceptance test Criteria for Storage – In addition to the functional test, Vendor and OEM has to setup storage performance test at ISTRAC site to match the performance requirement as mentioned in specification for Config-1 and Config-2 storage respectively. ISTRAC shall provide following NFS client nodes for generating the loads on the storage with suitable LAN connectivity – Servers on 10G LAN – 10 Nos •Workstations on 1 G LAN = 40 Nos OEM/Vendor has to plan for suitable test</p>	Yes / No / Explain		
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scenario using the client nodes (all in Linux platform) to generate the required load to achieve the performance figures as mentioned in the specification. Vendor may use VDBench, IOR or IOMeter tools to generate the loads in optimum configuration scenario as recommended by storage OEM. The general workload will be 80% Read and 20% write for showcasing the performance of the deployed hardware with the given block size.

Vendor has to supply additional hardware if they

18	Warranty	<ul style="list-style-type: none"> •All the deliverables shall have total 7 years warranty as follows •On-site Comprehensive Warranty support for 7 years at ISTRAC Sites located at Bangalore and Lucknow •Warranty support shall be Next Business Day with advance hardware replacement directly from the OEM •Failed Hard Disk media shall be returned to the OEM during the warranty replacement. Vendor shall include required part numbers in the offer. •Manufacturers support package for Warranty and technical support only should be quoted. The specific part number for such support should be clearly indicated. Vendor shall not replace manufacturer's warranty with their own warranty package. •Warranty shall start from the date of acceptance of the full configuration •The warranty details after acceptance of the product by ISTRAC must reflect on OEM website as per warranty SLA •OEM/Vendor to note that all for all the support deliverables no remote access will be provided to the system for troubleshooting purpose. For any unresolved issue if the system expert needs access to the 	Yes / No / Explain		
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<p>hardware, they need to visit ISTRAC installation site for such access.</p> <ul style="list-style-type: none"> •Technical Support to cover the following •Access to technical support information for resolving problems, configuration issues, utilities etc. •Firmware & device drivers •Access to technical literature relating to the system •Onsite Technical Assurance in trouble-shooting •Support engagement by Vendor- •Vendor must have a support center in Bangalore and Lucknow/ for quick resolution and support call logging. •Vendor shall ensure all support delivery on site and carry out replacement of faulty items, upgradation of firmware and collection logs at ISTRAC site and Bangalore and Lucknow. •In case vendor does not have office at Bangalore and at Lucknow then vendor shall identify one dedicated certified engineer at each location who shall support all on-site. The engineer shall be available on site within two hours of registering a call with the vendor. 			
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2. NAS Storage 150 TB

Item specifications for NAS Storage

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Quantity	Config-2: High Available Unified Storage 150 TB – 01 No ISTRAC shall decide the final quantity before placing the order	Yes / No / Explain		
2	General Information –	Configuration-2 Storage solution shall consist of 150 TB High Available Unified Storage which will be deployed at ISTRAC, Lucknow. This Storage to be delivered at ISTRAC, Lucknow. -The scope of the system Integrator/vendor shall include the system delivery as per specification, Installation and commissioning, onsite performance testing complete implementation of the storage solution with onsite support as per specification.	Yes / No / Explain		
3	General Specification	<ul style="list-style-type: none"> •Vendor shall offer an Unified Storage which supports out of the box capability for different storage protocol under a single management console •Vendor should quote the entire solution from the same product family of a single manufacturer. •The Unified Storage Operating System should be owned by the Storage Hardware Manufacturer. 	Yes / No / Explain		
4	Physical	19 inch Rack mountable Storage hardware rack mount kit shall be offered	Yes / No / Explain		

5	High Availability Features	<ul style="list-style-type: none"> •The offered solution should be configured with no single point of failure (NSPoF). •The offered solution should be configured with dual controllers which supports Active-Active mode. •The offered solution should provide session/cache information replication across the controllers to support faster failover across the controllers. •It should retain the state information of the active transactions during a controller failover event. •During controller failover shall complete well with in before the client nodes detect filesystem or storage block is unavailable. Storage which requires remounting of file system or block storage during controller failover event should not be offered. •Any maintenance activity on the storage, controller OS upgradation, and file system expansion should be performed online without downtime. •Any maintenance activity should be non-destructive for the stored data. 	Yes / No / Explain		
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6	Protocol Support	<ul style="list-style-type: none"> •The storage controller should be offered with NFS (v3, v4, v4.1 support), FC, CIFS & iSCSI protocol support. If any additional hardware software is required to support all the required protocol then should be offered in redundancy to ensure NSPoF. 	Yes / No / Explain		
7	Disk Enclosure	<ul style="list-style-type: none"> •The Disk enclosures shall be offered with sufficient capacity to house required number of disks. •The disks offered should be 12Gbps dual ported drives •The disk enclosure shall be configured with required interconnection cables to have connectivity with both the controller to avoid single point of failure. •The disk enclosure shall be configured with hot swappable redundant power supply and fan tray 	Yes / No / Explain		
8	Scalability	<ul style="list-style-type: none"> •The offered storage solution shall be scalable up to 400 drives •The unified proposed system should be field upgradeable to a higher model through data-in-place upgrades. 	Yes / No / Explain		

9	Storage Solution Features and Architecture	<ul style="list-style-type: none"> •The unified storage architecture should be based upon dedicated appliance, running specialized operating system optimized for storage operations. •The host operating system in the controller should be strictly based on Unix/Linux based kernel with a specialized environment built to support high performance file service. The storage operating system should not be based on general purpose OS. •The proposed NAS storage architecture should not be based upon file services running on general purpose OS and conventional server hardware. •The storage should be able to provide single name space/file system for configured capacity and should be scalable upto 256 TB •The controller NAS operating system should be protected by RAID. •The controller should support creating disk groups in different RAID levels viz., mirroring, single parity and dual parity or equivalent data protection technologies •Each controller should be configured with at least 32 GB of memory. •The system should be configured with minimum 4 TB of SSD/Flash/NVMe based cache for accelerating the 	Yes / No / Explain		
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performance. This SSD or NVMe based pool will not be part of file system.

- Storage Controller should be capable of supporting a single LUN of size of at least 16 TB.
- Controllers should support different disk drives viz., SSD, SAS, NL-SAS.
- It should be possible to grow the file system online.
- It should be possible to grow the disk pool online to grow the file system.
- The storage should support data tiering with real-time movement of hot data to high performing drives. It should offer the capability to move data between one tier of drives to another tier of drives.
- The controller cache should support battery backup option or equivalent technology to protect uncommitted data against power failure.
- The controller should be configured for point in time images or snapshots and applicable licensing should be offered. It should be possible to take at least 64 snapshots per file system.
- Proposed storage shall support compression and required license shall be offered.
- The proposed storage array must support data at rest encryption offering industry standard certification/compliance. The storage array may implement

data at rest encryption using self-encrypting drives or controller based functionality there by not impacting performance.

- The controller should have DE-duplication & compression features for file system access and necessary licensing for the offered solution should be included.
- It should be possible to configure quotas on the user, volume and directory level.
- The storage controller shall be licensed for partitioning / virtual controller / feature for multitenant environment. It should be possible to partition the storage and the network resources and assign it to different virtual storage domain. Each virtual storage can be managed as independent storage zone with required controls and rights delegation by storage administrator.
- Storage controller shall support NDMP for backup and restore operation.
- Shall support LDAP and Active Directory integration

10	Management Software	<ul style="list-style-type: none"> •The software for managing the storage device should be Web GUI based or CLI. •Storage administrator console shall be protected by multi-factor authentication •The proposed management interface should be able to manage, configure and monitor the environment. •Single management, easy to use GUI based and web enabled administration interface for configuration, storage management and performance analysis tools for both block and file. •The interface shall allow to manage the entire storage solution from single interface which allows - Storage Management, Cluster Management, DR Configuration Management. •The management console shall allow to generate reports on block and file access for a given duration for per node, per user, per volume on a specific administrative domain. •Audit Trail Capability – The Storage solution shall offer suitable solution to retain detailed of NFS Transaction Log to record every file access on the shared file system. The audit log shall 	Yes / No / Explain		
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		include access time stamp, client node ip, mode of access (read or write) and user information. This log shall be retained at least for last 72 hours and shall be in searchable format. Vendor shall offer required resources for capturing this information.			
11	Power	<ul style="list-style-type: none"> •The offered storage solution should be supplied with hot swappable redundant power supply units, for all the components (Storage Controller, desk Shelves) •Power Supply rating: 220 volt/50 Hz. •Required power cable shall be offered with the storage. 	Yes / No / Explain		

12	Compliance Specific to Foreign Make Products	<p>Foreign make products shall match the following certifications and compliances (This section is applicable only for Foreign make products) –</p> <ul style="list-style-type: none"> •RoHS and WEEE •FCC Class A or EMC compatibility as per US and European standards •CE Compliant or Safety compliance as per US and European standards •Power supply – Platinum rated (80 Plus Platinum) •Security Compliance – OEM signed image verification •The offered product or Storage Operating system must be certified with EAL2[Evaluation Assurance Level] or NIAP/CCEVS [National Information Assurance Partnership / Common Criteria Evaluation & Validation Scheme]. <p>Make in India product – Make in India product shall match the following certifications and compliances (This section is applicable only for Make in India products) –</p> <ul style="list-style-type: none"> •RoHS India [E-Waste (Management) Rules, 2016] certification Compliance to BIS norms for safety standard IS 13252:2010 or equivalent BIS standard •Energy Star 6.1 or equivalent – As per Bureau of Energy 	Yes / No / Explain		
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		Efficiency, Govt of India Guideline for Computer/ Hardware •Valid Indian Common Criteria Certification Scheme (IC3S) for EAL2 or better for the offer product or offered version of firmware			
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13	Disk Shelve and Performance requirement	<p>Disk Shelf configuration for Config-2 Storage:</p> <ul style="list-style-type: none"> •The usable storage capacity of 150 TB at the file system level should be offered. The offered capacity shall have 147 TB NL-SAS and 3 TB on SSD. •Vendor should note that the capacity mentioned above is the usable/workable capacity at the file system level. Vendor should quote for appropriate configuration considering the spares and RAID configuration. Vendor should consider maximum 12 drives in a RAID group offering 3 disk protection per RIAD group. If the solution does not offer 3 Disk protection capability, the solution should be designed with equivalent numbers of disks in global hot spare. The detailed breakup on the disk count to be provided along with the proposal. •The SSD pool can be offered on RAID 6 or on RAID 1 with two global hot spare. •Vendor should demonstrate the usable capacity on a Linux NFS client using standard Linux commands like "du -sh". •A detailed calculation in arriving at the number of disks to meet the usable storage requirement of 150 TB should be provided along with the offer. •Vendor shall include 20% of disk space 	Yes / No / Explain		
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as file system snapshot reserve area in the file system calculation. The usable capacity shall be derived excluding snapshot reserve area in the file system.

- The storage enclosure shall be populated with maximum 16 TB Enterprise NL-SAS and maximum 960 GB SSD as performance drive. The vendor can offer lower capacity disk.
- If vendor is offering higher capacity disk than specified above the total number of disk count shall be as per 16 TB NL SAS and 960GB SSD disk. Vendor has to offer disks counts accordingly and licenses shall be extended for full capacity.
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Performance for Config-2 Storage:

- The offered storage controller (each controller) shall support minimum throughput of 200000 IOPS with 8K block size at 80% read and 20% write with NFS
- Bandwidth – 2 GBps with 32 K block size at 80% read and 20% write with NFS.

Interfaces / Ports per Controller –

- Each storage controller should be configured following network ports
 - o1G Copper Ethernet 4 Nos
 - o10 G Fiber Ethernet

		<p>(10 G SR LC Type) – 4 Nos</p> <ul style="list-style-type: none">•FC Port – Each storage controller should also be configured with two 16 Gb FC port with transceiver (SR type) for connecting to the SAN switch for backup and for providing block access.•Required network cables and FC cables to be offered (5 Meter Length).		
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14	Product Feature Evaluation in Remote access mode	<ul style="list-style-type: none"> •The vendor/OEM shall offer similar storage product in remote access mode over Internet for ISTRAC engineers to evaluate the features of the offered product during technical evaluation of the offer •The offered product for evaluation shall be of same product line with similar storage operating system version with required licenses . •If multiple vendor offers same OEM product on similar BOM, a single remote access offered directly from OEM shall be asked for evaluation of the product •ISTRAC will need access to the storage product for management console and two NFS clients on the network to evaluate the product features. •Vendor shall ensure ISTRAC team has remote access to storage controller management console, storage controller logs, client device and logs. ISTRAC shall evaluate high availability feature, multi-tenancy feature etc for the product and suitable configuration shall be offered. •ISTRAC will communicate to the Vendor on specific feature sets which ISTRAC would like to evaluate on the offered product. The selection of the specific product features will be 	Yes / No / Explain		
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decided by ISTRAC during the technical evaluation process.

- ISTRAC will decide the demonstration requirement of feature sets across OEM products and the requirement will vary based on OEM product.
- Vendor shall assist ISTRAC team in configuration and demonstration of product features.
- Vendor shall keep all the required resource ready for remote evaluation during quoting for this tender. The remote lab configuration diagram, access credentials and access methods shall be shared along with the technical offer. The vendor shall enable remote access immediately after receipt of the email communication via ISTRAC purchase.
- In case the vendor or OEM is not able to successful demonstration of the feature with-in a weeks time after receipt of the requirement, ISTRAC will not accept any further request for extension or re-evaluation of the feature demonstration activity.
- The outcome of the feature demonstration will be based on the decision of the ISTRAC technical team.

15	Quality Requirements	<ul style="list-style-type: none"> •The design and production of critical subsystems like system board, controllers etc., shall be under the control of manufacturer & international quality certified realization process •All subsystems of the system shall have been selected to achieve optimal performance and high reliability. •The system architecture shall ensure maximum performance for data forwarding. The subsystems, the processor boards, the interconnections among subsystems and the software shall be properly matched to ensure maximum performance •Systems shall be only from a proven product line from highly reputed manufacturers. The product line shall be an internationally established brand reputed for high quality and with wide acceptance in deployment for mission critical and business critical functions in the industry. •The manufacturer of the system shall be in total control of the lifecycle (Design, release, support, obsolescence and termination of the critical subsystems like motherboard, controllers etc.,) of the product. 	Yes / No / Explain		
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16	Installation and Commissioning	<ul style="list-style-type: none"> •Vendor should install & commission the systems as per the configuration at ISTRAC sites in Bangalore and Lucknow •Vendor should provide detailed documentation on the implementation as a part of solution implementation activity. •System installation, commissioning is the sole responsibility of the vendor. It includes the installation of all hardware, operating System, configuring the storage solution and configuring the backup solution as per ISTRAC's requirement. •At the time of installation and commissioning of the configuration if it is found that some additional hardware accessories or software items with licenses are required to complete the configuration to meet the operational requirement of the configuration 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 to ISTRAC. Vendor should ensure completeness of the list of deliverables in the offer to avoid such discovery during installation. <p>OEM Professional Service</p> <ul style="list-style-type: none"> •The Storage OEM must engage 	Yes / No / Explain		
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		<p>engineer(s) from its professional service team to perform High Level Designing, Low Level Designing, migration methodology and acceptance testing with proper documentation. Any supporting network artefacts/documents should be provided along with for the proposed solution.</p> <ul style="list-style-type: none">•All the products (Bangalore and Lucknow) must be deployed under the supervision of the Professional Service.•OEM Professional Service to do proper handover with knowledge transfer for the deployed network with the purchaser.•OEM must also allocate a project manager till handover of the implementation is completed.•Required part number for Professional Service to be quoted in the BOM			
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17	Acceptance test	<p>The system Integrator/Vendor along with system integrator has to conduct the functional acceptance test of all the hardware and software elements as per speciation at user site at Bangalore and Lucknow.</p> <p>Vendor has to generate an acceptance test report based on functional test conducted mentioning the specific configuration with diagram wherever required and verification of the feature set, commands used and by capturing the screenshots as evidence.</p> <p>•Acceptance test Criteria Config-2 Storage – In addition to the functional test, Vendor and OEM has to setup storage performance test at ISTRAC site to match the performance requirement as mentioned in specification for Config-1 and Config-2 storage respectively. ISTRAC shall provide following NFS client nodes for generating the loads on the storage with suitable LAN connectivity – Servers on 10G LAN – 10 Nos •Workstations on 1 G LAN = 40 Nos OEM/Vendor has to plan for suitable test</p>	Yes / No / Explain		
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scenario using the client nodes (all in Linux platform) to generate the required load to achieve the performance figures as mentioned in the specification. Vendor may use VDBench, IOR or IOMeter tools to generate the loads in optimum configuration scenario as recommended by storage OEM. The general workload will be 80% Read and 20% write for showcasing the performance of the deployed hardware with the given block size.

Vendor has to supply additional hardware if they fail to achieve the performance figure as stated without any extra cost to ISTRAC.

18	Warranty	<ul style="list-style-type: none"> •All the deliverables shall have total 7 years warranty as follows •On-site Comprehensive Warranty support for 7 years at ISTRAC Sites located at Bangalore and Lucknow •Warranty support shall be Next Business Day with advance hardware replacement directly from the OEM •Failed Hard Disk media shall be returned to the OEM during the warranty replacement. Vendor shall include required part numbers in the offer. •Manufacturers support package for Warranty and technical support only should be quoted. The specific part number for such support should be clearly indicated. Vendor shall not replace manufacturer's warranty with their own warranty package. •Warranty shall start from the date of acceptance of the full configuration •The warranty details after acceptance of the product by ISTRAC must reflect on OEM website as per warranty SLA •OEM/Vendor to note that all for all the support deliverables no remote access will be provided to the system for troubleshooting purpose. For any unresolved issue if the system expert needs access to the 	Yes / No / Explain		
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hardware, they need to visit ISTRAC installation site for such access.

- Technical Support to cover the following
- Access to technical support information for resolving problems, configuration issues, utilities etc.
- Firmware & device drivers
- Access to technical literature relating to the system
- Onsite Technical Assurance in trouble-shooting
- Support engagement by Vendor-
- Vendor must have a support center in Bangalore and Lucknow/ for quick resolution and support call logging.
- Vendor shall ensure all support delivery on site and carry out replacement of faulty items, upgradation of firmware and collection logs at ISTRAC site and Bangalore and Lucknow.
- In case vendor does not have office at Bangalore and at Lucknow then vendor shall identify one dedicated certified engineer at each location who shall support all on-site. The engineer shall be available on site within two hours of registering a call with the vendor.

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
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1	Notes to the Vendor	<p>•Vendor shall submit following certifications from OEM on OEM's letter head for each OEM product -</p> <p>a) The vendor is authorized for participating in the bid</p> <p>b) The offered hardware is not an obsolete product</p> <p>c) The offered hardware / software component is back-to-back supported by the OEM during the warranty period</p> <p>d) The failed media will not be returned during warranty period</p> <p>•System Management Device – Vendor shall deliver two windows laptops for system management purpose along with the deliverables.</p> <p>•Vendor shall provide compliance documents for Make in India or Foreign make products for the applicable section.</p> <p>•Vendor shall note that the quantity indicated in the slabs is indicative and ISTRAC will finalize the ordering quantity at the time of ordering. ISTRAC may choose to opt for suitable configuration and decide L1 based on the final requirement during ordering stage. L1 will be decided based on the overall cost of all the Storage hardware and not based on cost of individual storage hardware.</p> <p>•Vendor may note that any component which is a better / improved version of the specification may be</p>	Yes / No / Explain		
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offered. However the offered product shall be the latest or next generation hardware in the same product family as specified.

- For all items in the list of deliverables offered by the vendor, the manufacturer's part number should be clearly indicated. Offer of items without clear specification of part number is not acceptable.
- Vendor should indicate the part nos. of the deliverable items clearly. The part numbers & description of the items in the offer should match the part numbers & description of the items mentioned in the manufacturer's spec sheets.
- The part numbers & description of the goods delivered should match the part numbers & description in the offer.
- Vendor should carefully consider all the clauses in the specifications and should ensure that their offer is complete in all respects at the time of submission. Complete technical documentation justifying the compliance should be enclosed along with their offer. Offer which are incomplete are liable to be considered non-compliant.
- Specifications of the major items have been provided in the enclosed document. In case any additional accessories/ software media/licenses are required to complete the configuration for full functionality and/or better manageability vendor should include

		<p>such hardware accessories and related software elements or plug-ins to enterprise management software with licenses in their offer.</p> <ul style="list-style-type: none"> •Systems from the manufacturers who primarily assemble systems by getting components/subsystems from different suppliers and who do not have direct control over the production process/ quality of the items so obtained, will not be acceptable. •Vendor should provide technical brochure from manufacturer for all subsystems to verify the current status (i.e. when released, whether due for replacement /obsolesce) the specification of the subsystems. The technical brochure shall give the details not only for the main system but also for all the subsystems and accessories. Technical brochure shall include details of <ul style="list-style-type: none"> oFunctional specification. oHardware & software configuration. oConfiguration options. oElectrical & environmental specification. oSafety compliance details. oPhysical dimension. •The cost quoted by the vendor should be for delivery at ISTRAC stores, Bangalore (configuration-1 Storage) and ISTARC, Stores, Lucknow((configuration n-2 Storage) and 			
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		installation & commissioning and Support at ISTRAC sites in Bangalore and Lucknow.			
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Supporting Documents required from Vendor

1. RoHS & WEEE Certificate

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	Payment Term (Our normal terms of payment is 100% within 30 days from the date of receipt and acceptance of the item at our site)	Yes / No / Explain	
2	Taxes and other costs, if any	Yes / No / Explain	
3	Delivery Period	Yes / No / Explain	
4	Delivery Term	Yes / No / Explain	
5	Security Deposit: FD or BG for 3% of PO value to be submitted after receipt of PO and valid till supply & acceptance.	Yes / No / Explain	
6	Performance Bank guarantee : BG for 3% of PO value to be submitted while claiming payment valid till end of warranty period with a claim period of 60 days.	Yes / No / Explain	
7	SD-cum-Warranty (PBG) (in lieu of SD & PBG as a single instrument): BG for 3% of PO value to be submitted after receipt of PO valid till end of warranty period with a claim period of 60 days.	Yes / No / Explain	
8	DELAY IN COMPLETION / LIQUIDATED DAMAGES :If the Contractor fails to deliver the stores within the time specified in the Contract or any extension thereof, the Purchaser shall recover from the Contractor as Liquidated Damages a sum of one-half of one per cent (0.5%) of the Contract price of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed ten percent (10%) of the contract price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the stores will be considered as delayed until such time as the missing parts are delivered.	Yes / No / Explain	
9	Warranty	Yes / No / Explain	

10	Validity	Yes / No / Explain	
11	Name and Address of the company on whom purchase order to be placed (OEM if any should be added in your E-Procurement profile under Add Agent/Principal without fail). Address indicated here must be available in your profile as a Principal/Agent failing which PO will be placed on the e-procurement address available in the profile.	Yes / No / Explain	
12	Certificate of Undertaking: Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods or services (including consultancy services and non consultancy services) or works (including turn-key projects) only if the bidder is registered with the Competent authority (i.e. DPIIT). Hence, it is mandatory to furnish Certificate of Undertaking as indicated in the tender document.	Yes / No / Explain	
13	Foreign vendors are permitted to quote. 1. Class -I and Class-II Local suppliers as per make in India policy are also eligible to participate in the bid. 2. The percentage of local content should be specifically mentioned in the offer if the quote is from Class-I or Class-II local supplier 3. Preference will be given to class-I Local Supplier and in their absence, class-II Local suppliers and in their absence Non-Local suppliers will be considered.	Yes / No / Explain	
14	Percentage of local content for the quoted item.	Yes / No / Explain	
15	Details of location (s) at which the local value addition is made	Yes / No / Explain	
16	GeM Seller ID: As per GoI OM No. 6/9/2020-PPD dated 24.08.2020 and DO No. 170/CEO-GeM/2020, sellers providing Goods and Services to Central Government Organizations shall be registered on GeM and obtain a unique GeM registered ID. Hence please get registered in GeM and furnish your GeM Seller ID.	Yes / No / Explain	
17	Any other terms	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	NAS Storage	1.0 - 2.0 Nos.		-		
2	NAS Storage	1.0 - 2.0 Nos.		-		

Common charges (Applicable for all items)

P&F Charges	
Freight Charges	
Installation Charges	
Documentation & Handling Charges	
Other Charges (If any)	