GBU Tender Enquiry No. GBU/IT/Server/2024-25 Dated: 14-10-2024

RFP for supplying, installing & commissioning of Servers, Storage, Network Switches, Smart Rack, and UPS components.

Tender Published Date	:	14-10-2024
The last date for submission of the bid	:	05-11-2024 up to 6:10 PM
The last date for submission of physical documents	:	08-11-2024 up to 3:00 PM
The technical bid opening date & time	:	08-11-2024 at 05:00 PM
The financial bid opening date & time	:	Will be intimated to the technically qualified Bidders

Venue
GUJARAT BIOTECHNOLOGY UNIVERSITY, Near GIFT City, Gujarat 382355

Note: Please address all queries and correspondence to:
The Registrar, GUJARAT BIOTECHNOLOGY UNIVERSITY, Near GIFT City, Gujarat 382355

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Section – 1
Project Profile

Introduction

Gujarat Biotechnology University (GBU) is the World's First Biotechnology University spread over a 28-acre campus near GIFT City, Gandhinagar, Gujarat.

GBU is funded by the Government of Gujarat's Department of Science & Technology, GBU has at its core, a culture of excellence, innovation, and entrepreneurship. GBU offers MSc (Res) and Ph.D. programs in five biotechnology domains with a strong translational focus to deliver biotech solutions for societal challenges.

GBU is planning to Setup a Centre of Excellence for Bioinformatics consisting of the Latest Servers, Storage, Network Switches, Smart Rack, and UPS, and this RFP is being floated to select the Bidder who will perform turnkey basis following activities.

- Supply of hardware and software related to Servers, Storage, Network Switches, Smart Rack, and UPS along with required accessories for the project.
- Commissioning and Installation of the components mentioned above on a Turnkey basis.
- Maintenance support for the installed hardware during the Warranty period

Bidder has to supply install, commission, and maintain the components as per the specifications mentioned in the technical sectional. Any additional items required for the project completions should be considered along with their cost during the offering of the commercials.

GUJARAT BIOTECHNOLOGY UNIVERSITY will not pay any additional cost other than what is mentioned in the commercial bid.

Schedule of proposed project

Sr. No.	PROJECT
1	**RFP for supplying, installing & commissioning of Servers, Storage, Network Switches, Smart Rack and UPS components at GUJARAT BIOTECHNOLOGY UNIVERSITY, GIFT City Campus the broad scope of works will be as defined above in section of the project**

The scope of the above RFP defines the specifications, requirements and Bill of material related to the IT infrastructure required by GUJARAT BIOTECHNOLOGY UNIVERSITY for its current and future requirements.

Completion details: -

It is proposed to complete these works as per the given schedule. The nature of works broadly comprised as mentioned in Section -3 "Scope of Work".

Bidding option for the Bidder: -

The Bidder must bid for all the components on a SITC [supply, installation, testing, and commissioning] basis and if the bid is not offered as mentioned then the same will be liable to rejection.

Section -2

Tender notice and information for online bidding

On behalf of GBU Purchase department invites online tenders for **Servers, Storage, Network Switches, Smart Rack, and UPS components at GUJARAT BIOTECHNOLOGY UNIVERSITY, GIFT City Campus.**

2.1 The schedule for e-tendering is as under:

(i)	Tender Document to be downloaded from the website (https://gbutender.nprocure.com/)	14/10/2024 till 05/11/2024 up to 18:00 hours
(ii)	Tender Fees (Nonrefundable) to be submitted to GBU in the form of Demand Draft/ Banker's Cheque / Pay Orders in favor of "**-GUJARAT BIOTECHNOLOGY UNIVERSITY, Gandhinagar**", payable at Gandhinagar from any Nationalized/Scheduled Bank through registered AD/Speed Post only in a sealed cover. Can also be submitted in person along with a copy of the physical bid in a separate cover.	Rs. 15,000/-(Fifteen thousand only/-) Till 06/11/2024 up to 18:10 Hrs.
(iii)	The Bidder shall furnish, as part of the Bid, EMD shall be submitted in the form of a Demand Draft OR Banker's Cheque / Pay Orders in the form of an unconditional Bank Guarantee (which should be valid up to the validity of bid + 90 days) of any Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative Banks and Rural Banks (operating in India having a branch at Gandhinagar in the name of "**GUJARAT BIOTECHNOLOGY UNIVERSITY, Gandhinagar**." payable at Gandhinagar as per prescribed format given, and in a separate envelope. The unpriced bid (Technical bid) will be opened subject to the confirmation of valid EMD and bid processing fees.)	Rs. 15,00,000/- (In words: Fifteen Lakhs Only) Till 06-11-2024 up to 18:10 Hrs.
(iv)	Last date of Submission for query through email or letter. Please note that after the final query submission date no queries by any Bidder will be entertained	24-10-2024 up to 18:10 Hrs
(v)	Any queries regarding the tender documents may be sent by email.	purchase@gbu.edu.in

(vi)	Pre-Bid meeting	24-10-2024 at 11:00 hrs. **Online pre-bid meeting link:** To join the video meeting, click this link: https://meet.google.com/kqf-pvyn-gmc Otherwise, to join by phone, dial +1 724-565-4198 and enter this PIN: 216 580 839#
(vii)	Last date and time for the online Tender submission	05-11-2024 up to 18:10 hours
(vii)	Last date for submission of Physical Tender	08-11-2024 up to 15:00 hours
(ix)	Online Opening of Technical Bid	08-11-2024 at 17:00 hours
(x)	Value of safe deposit/ performance bank guarantee	3% of the order value for 62 months. To be valid from the date of installation to 62 months

2.2 **Downloading Tender Documents**: Tender documents will be available on the website up to the date and time as shown above. Bidders who wish to participate in this tender shall have to register on the website https://gbutender.nprocure.com/

2.3 **Digital Certificate**: Bidders who wish to participate in online tendering shall have to procure / should have a legally valid Digital Certificate (Class III) as per the Information Technology Act-2000, using which they can sign their electronic tenders. Bidders can procure the same from any of the licensed certifying Authority of India or can procure from (n) code solutions – a division of GNFC Ltd, who are licensed Certifying Authority by Govt. of India. All tenders shall be digitally signed. For details regarding the digital signature certificate and related training, the below-mentioned addressee shall be contacted. In case bidders need any clarification/assistance or training for participating in the online tender, they can contact the following office:
(n) Code Solutions, A division of GNFC
301, GNFC Info tower, Bodakdev, Gandhinagar – 380 054 (India) Tel: + 91 26857316/17/18, Fax: +91 79 26857321, Mobile: 9327084190, 9925117079; E-mail: nprocure@gnvfc.net

2.4 Bidders who already have a valid Digital certificate need not procure a new Digital certificate.

2.5 **Online Submission of Tender**: Bidders can prepare and add on their bid *n* number of times before the last date and time prescribed for tender submission. However, the tender shall not be permitted to be edited in any case after the last date and time prescribed for submission of tender as specified hereunder.

2.6 No written or online request in this regard shall be entertained. Bidders shall submit their tender in electronic format only on the above-mentioned website https://gbutender.nprocure.com/ and before the date and time mentioned above, and each tender shall be digitally signed by the authorized person of the bidder. Tender documents in any other form including in physical form shall not be accepted and the same shall be accepted in the electronic format.

2.7 A scanned copy of all details as required shall be uploaded in electronic format. During the opening of the online technical bid, if it is found that the above details as mentioned are not submitted in electronic format, tenders of such bidder shall not be considered.

2.8 Tenders must be submitted as per two bid systems (Technical and Financial). Both the bids must be submitted online, giving full particulars on the website https://gbutender.nprocure.com/ on or before **[refer to section 2 (2.1)].** Please note that an identical **hardcopy of only the technical bid along with the Tender fee and EMD in a sealed envelope** must be submitted at GBU GANDHINAGAR's address mentioned in this document on or before **[refer to section 2 (2.1)]**. Bids received after the date and time specified in this tender will not be accepted.

2.9 **Financial bids must be submitted online on** https://gbutender.nprocure.com/ only. **Financial bids submitted online only on** https://gbutender.nprocure.com/ **will only be considered and if submitted in any other form will be not accepted and will be rejected.** GBU GANDHINAGAR reserves the right to accept or reject any or all bids without assigning any reason.

2.10 The Technical bid should be complete in all respects and should contain all the information asked for. The technical bid should not contain any financial-related rates/bids. The Technical bid should be complete to indicate that the products and services asked for are quoted.

2.11 The Financial Bid must give all relevant price information and should not contradict the technical bid in any manner.

2.12 Bidder can download the bid document and further amendment, if any for free on GBU website www.GBU.edu and www.nprocure.comand upload the same on or before the last date of submission of tender on www.nprocure.com

2.13 The bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submit a Bid not substantially responsive to the bidding documents in every respect may result in the rejection of the Bid.

2.14 At any time before the deadline for submission of bids, GBU Gandhinagar, for any reason, whether at its initiative or in response to the clarifications requested by prospective Bidders may modify the bidding documents by amendment & publish the same on the website.

2.15 Any amendments/corrigendum/modifications will be notified on www.GBU.edu and www.nprocure.com websites only. Bidders are advised to regularly browse these websites till the last date of submission of tender. These amendments/corrigendum/modifications will be binding on them.

2.16 The Bidder shall be deemed to have carefully examined all work-order documents to his entire satisfaction. Any lack of information shall not in any way relieve the Bidder of his responsibility to fulfill his obligation under the work order.

2.17 In case of queries regarding tender documents, the list of queries may be sent through email to:**purchase@GBU.edu.in on or before query submission dates. Post the cut-off time no queries will be entertained.**

2.18 **Opening of Technical Tender**: Technical tenders shall be first opened online as per the schedule mentioned in the tender at the GUJARAT BIOTECHNOLOGY UNIVERSITY, Gandhinagar as per the date and time defined in the header.

2.19 Technical bids shall be evaluated as per procedures mentioned in the tender documents. The decision of the committee on the evaluation of the bids shall be final and binding to every bidder.

2.20 **Opening of Commercial bid**: A commercial bid of only a qualified bidder whose technical bid is accepted shall be opened.

2.21 Tenders without tender fees, EMD, and which do not fulfill all or any of the conditions of the tender document shall be rejected outright. Tenders with incomplete details in any aspect shall also be rejected.

2.22 Conditional tender shall not be accepted.

2.23 This tender notice shall form a part of the tender document.

2.24 Every bidder shall mention his email address in the technical bid.

Section - 3
Scope of Work

The Scope of the work includes undertaking various supplies and services related to the deployment of various solutions. The details are:

Server Infrastructure for Bioinformatics.

The Scope of the Work related to the Server and Storage solutions is as mentioned below:

- Installation of New Rack unit along with environmental monitoring systems, PDU, etc within the racks on a SITC basis as per the specifications.
- Installation of UPS and connections to the new PDU that will be installed in the rack.
- Installation of all the equipment to new racks as per the discussion with the bidder post the release of the purchase order.
- Installation of switches and other accessories the same in the new rack.
- OEM/System Integrator shall be responsible for carrying out first-time installation and commissioning of the supplied Server / Storage solution including supplied hardware/software at GBU, Gandhinagar site.
- Supply of Required patch cords (CAT6a / FC) as per the requirements to interconnect and connect to the existing GBU Network.

3.2 Bidder will be responsible for undertaking and completing the works related to **supply installation and commissioning of services as indicated in the bid.**

3.3 The works are to be completed on a turnkey basis and the supplied equipment is required to be maintained for five years on a comprehensive warranty basis from the date of Final Approval and Testing and accept the work order. The Bidder shall be responsible for the implementation of the work as defined.

3.4 **Bidder is required to carry out the following tasks.**

Turnkey Project Basis: - The Bidder shall act as a single Bidder to organize and manage the entire project – including supply, installation, and commissioning of all required hardware, software, networking, accessory items, etc.

Warranty: - The Bidder shall be responsible for the warranty support as required by the GBU, Gandhinagar.

Training:

1. For technical staff:
   Infrastructure and management training on how to manage and administer the Server, storage and network infrastructure, generate ticket and get the remote or onsite support for the infrastructure
2. For Faculty Member: [for 15-20 faculty member onsite at GBU campus]
   Operational Training – Half day at the GBU campus
   a) How to use the server, storage and network infrastructure for firing the compute job initiated by faculty member, monitor these jobs and store these results
   b) Training on "How to use NVIDIA AI Enterprise software" for 15-20 faculty members over the

online mode for two full days

For the right use of the computer facilities installed at the GBU campus, training the faculty members and technical staff is an essential requirement. However, in case any standard operating procedure required to be drafted by GBU before the training, bidder has to extend all the required support to draft such SoPs.

All goods or materials shall be supplied strictly following the specifications, Drawings, datasheets, other attachments, and conditions stated in the RFP / Agreement / Work Order. All materials supplied by the Bidder shall be guaranteed to be of the best quality of their respective kinds and shall be free from faulty design, workmanship, and materials.

Section - 4

Bid Pre-Qualification criteria.

Bidders desirous of bidding for the project shall fulfill the following prequalification criteria:

Sr.No.	Eligibility Criteria	Attachments
a.	The Bidder should be in the business of providing similar solutions in India since last 10 Years	Relevant registration documents like GST certificate, Gumasta Dhara certificate, etc. should be given as a supporting document. In case the firm is a Company then an ROC certificate can
b	Bidder must have completed at least the following numbers of Server, Storage, Network, Smart Rack & UPS of a value specified herein: One project of a similar nature not less than the amount value equal to 80% of the estimated cost for the Server, Storage, Network & Smart Rack OR Two projects of similar nature not less than the amount equal value equal to 60% of the estimated cost for Server, Storage, Network & Smart Rack OR Three projects of a similar nature not less than the amount equal <value equal to 40% of estimated cost> for Server, Storage, Network & Smart Rack.	Completion Certificates from the client. OR Work Order + Self Certificate of Completion (Certified by the Statutory Auditor); OR Work Order + Phase Completion Certificate from the client. Details should be uploaded in the format as defined in **Work order details for the Server, Storage, Network & Smart Rack components work done and Bidder should give supporting in terms of Purchase order and Completion certificate highlighting experience of**
c.	**The sum of annual turnover of the firm for the last three financial years. (I.e. 2021-2022, 2022-2023, 2023-2024) should be at least INR 15 crores per year, out of which INR 10 Crores should be from the SI activity business (IT Infrastructure and DC-Build).** The Bidder should upload the copies of the audited Balance Sheet and Profit & Loss accounts. Extract highlighting the comments of the auditor confirming revenue from the ICT Business should be also uploaded as a separate document.	Audited and Certified Balance Sheet and Profit/Loss Account of last 3 Financial Years should be enclosed. Details should be uploaded in the format as defined in **ANNEXURE – VI-details of Annual Turnover**

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Sr.	Eligibility Criteria	Attachments
d.	The Bidder should have at least one administrative office in Gandhinagar / Ahmedabad. The Bidder should have its own service & support infrastructure in Gujarat, to provide warranty and post-warranty services.	The details for administrative & service infrastructure must be enclosed, as a part of a declaration Bidder should submit a self-attested copy on their
f.	The Bidder should not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the tendering Authority.	An auditor's certificate to this effect must be provided along with the bid.
		Certificate/affidavit mentioning that, the Bidder is not blacklisted by the Government of Gujarat or any of the PSUs in the state of Gujarat due to engagement in any corrupt and fraudulent practices. Self-Declaration Form must be submitted
g.	The Bidder must have a valid GST Registration in India.	Proof of a valid GST in India should be enclosed.
h.	The Bidder must have a positive net worth and should be profit-making for each of the last three financial years as of 31st March 2024.	Audited and Certified Balance Sheet and Profit/Loss Account of the last 3 Financial Years should be enclosed. CA certificate mentioning the net profit
l.	The Bidder should get the Original Equipment Manufacturer Bid Specific Authorizations for the Products being offered for the following categories	MAF as per the Format defined by all OEM and Technical compliances on OEM Letter Head along with Full Name and Email ID, in case the OEM is bidding then he needs to give a declaration for the range of products he is offering from its portfolio
	- Server – Storage OEM	
	- Network OEM	
	- Smart Rack – OEM	
	- UPS – OEM	
	The Bidders should select the OEM along with the MAF & Technical Compliance on the OEM Letter Head along with the Full Name and Email ID of the Authorized Signatory, the Bidder should upload the supporting confirming OEM Qualification. **Bids without MAF, Technical Specification, and Supporting documents for PQ will be outrightly**	

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Section 5
Instructions to Bidders

Bid processing fee and EMD details: -

Section -1	Project Profile
Section -2	Tender Notice and Information for ONLINE Bidding
Section -3	Scope of Work
Section -4	Bid Pre-qualification Criteria
Section -5	Instruction to the Bidders
Section -6	Technical Specification
Section -7	Technical Bid Format
	Commercial Bid Format
Section -8	Performa for Performance Bank Guarantee
Section 9 Annexures	• ANNEXURE I: EMD TENDER FEE Details • ANNEXURE II: Tender Letter Form • ANNEXURE III: Manufacturer's Authorization Form • ANNEXURE IV: Details of Work Experience for Servers, Storage, Network Switches, Smart Rack, and UPS components solutions.

Authorization letters

1	Bid Security	**The Bidder will have to pay EMD as mentioned in [section 2 (2.1)], in form of DD from any Nationalized Bank in name of GUJARAT BIOTECHNOLOGY UNIVERSITY, Gandhinagar Payable at**

a. Authorization for Bidder
b. Confirm that the products quoted are not end of life products
c. Undertake that the support including spares, patches for the quoted products shall be available for next 7 years. (5 Year warranty + 2-year extended warranty)

Cost of bidding: -

The Bidder shall bear all costs associated with the preparation and submission of the Bid and GBU will in no case be responsible for those costs, regardless of the conduct or outcome of the bidding process. The 6th and 7th year AMC have to be quoted by the bidder and AMC for the 6th and 7th year will be awarded by GBU after the comprehensive warranty of 05 years is completed.

Amendment of bidding documents: -

- At any time before the deadline for submission of bids, GBU, for any reason, whether at its initiative or in response to the clarifications requested by prospective Bidders may modify the bidding documents by amendment.
- All Bidders will be notified of the amendment and such modification will be binding on them.
- To allow prospective Bidders a reasonable time to consider the amendment in preparing their bids, GBU, at its discretion, may extend the deadline for the submission of bids.

Language of bid:-

The Bid prepared by the Bidder, as well as all correspondence and documents relating to the Bid exchanged by the

Bidder and GBU shall be in English. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant pages in English. For purposes of interpretation of the bid, the translation shall govern.

The section comprising the bids.

The quotation should be scan-able and distinct without any option stated. The bid submitted shall have the following documents:

The Bid Security (Physical Submission at GBU – Gandhinagar)

- The bid security is to be furnished to the GBU office on or before the due date. The details are required to be filled in this section.

Technical Section

- Clause by clause Compliance statement for Bid document including all annexures to be submitted.
- All annexures / Table, duly filled in with necessary proofs, as required and stated in the bid document
- Letter of Authority for signing the bid.
- Make & Model quoted in the bid with brochures/internet printout.
- The seller must refrain from changing or altering the configuration of the factory pre-loaded Device / Equipment. The machine should be delivered to the purchaser in its original, factory-approved configuration. We will verify the factory pre-loaded config at the time of inspection before SITC of All in One at the site. The entire order will be rejected if any Device / Equipment is found altered during inspection.

Price bid Section:-

- Priced bid (in the prescribed format only)
  The Financial Bid should be uploaded separately in the prescribed format of BOQ available on the online procurement portal nprocure.com. The Financial bid Form shall contain only price details for items (in words and figures). If GBU finds that words and figures do not match, GBU will consider the lowest amount/figure for the same.

Fraudulent & corrupt practice:-

- Fraudulent practice means a misrepresentation of facts to influence a procurement process or the execution of a work order and includes collusive practice among Bidders (before or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the GBU of the benefits of free and open competition.
- "Corrupt Practice" means the offering, giving, receiving, or soliciting of anything of value, pressurizing to influence the action of a public official in the process of Work-order execution GBU will reject a proposal for award and may forfeit the E.M.D. and/or Performance Guarantee if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for, or in executing, work-order(s).

Lack of information to Bidder: -

The Bidder shall be deemed to have carefully examined all work-order documents to his entire satisfaction. Any lack of information shall not in any way relieve the Bidder of his responsibility to fulfill his obligation under the work order.

Terms and Conditions: -

Terms and conditions for Bidders who participate in this Tender are specified in the section named "**Terms and Conditions**". These terms and conditions are binding on all the Bidders. These terms and conditions will be part of the purchase order.

The Bidder should be agreeable to all the terms and conditions specified in the tender document. Conditional bids are liable for outright rejection.

Preliminary Scrutiny: -

GBU GANDHINAGAR will scrutinize the e-bids received to determine whether they are complete and as per Tender requirements, whether technical documentation as asked for and necessary to evaluate the bid has been submitted, whether the documents have been properly signed and whether all the items are supplied as per the requirements.

GBU GANDHINAGAR may, at its discretion, waive any minor non-conformity or any minor irregularity in the bid. This waiver shall be binding on all the Bidders and GBU GANDHINAGAR reserves the right for such waivers.

Clarification on Bids received: -

To assist in the scrutiny, evaluation, and comparison of bids, GBU GANDHINAGAR may, at its discretion, ask some or all the Bidders for clarifications on the bid made by them. The request for such clarifications and the Bidder's response will necessarily be in writing.

No Commitment to Accept Lowest or Any Bid: -

GBU GANDHINAGAR is under no obligation to accept the lowest or any other bid received in response to This tender and reserves its right to reject any or all the bids including incomplete bids without assigning any reason whatsoever. GBU GANDHINAGAR will not be obliged to meet and have discussions with any Bidder and/or to entertain any representations.

Bidder can offer specifications superior to those mentioned in the schedule of each IT equipment. All the relevant equipment supplied must be of the same make. **Any equipment supplied other than OEM make will not be accepted.** It is mandatory to provide the make, model, and part numbers of all items and their sub-components as asked in the technical specification. The bid may not be evaluated and/or will be liable for rejection in case of non-submission or partial submission of the make, model, and part numbers of the items supplied. The supply of any substandard/assembled item will entail cancellation of the whole supply order and forfeiture of the EMD/Security deposit.

Erasures or Alterations: -

The offers containing erasures or alterations will not be considered. There should be no hand-written material, corrections, or alterations in the offer. Technical details must be filled up. Correct technical information about the product being offered must be filled in.

Bid Price: -

The price bid should indicate the prices in the format/price schedule only.

Any effort by a bidder or bidder's agent / consultant or representative howsoever described to influence the GBU/ in any way concerning scrutiny / consideration / evaluation / comparison of the bid or decision concerning award of work order shall entail rejection of the bid.

Unit rates should be quoted separately for each item. Quantities can be increased or decreased by purchaser and bidder has to supply deviated quantities at the rates prescribed and approved by the purchaser in the tender document.

Bid currency
The prices should be quoted in Indian Rupees. Payment for the supply of equipment as specified in the RFP Document shall be made in Indian Rupees.

Unsuccessful Bidder's Bid security will be refunded within thirty (30) days from the award of work to the successful bidder.

The successful Bidder's Bid security will be discharged upon the Bidder signing the Service Level Agreement, and furnishing the Performance Bank Guarantee.

The Bid security may be forfeited at the discretion of GBU, on account of one or more of the following reasons:

1. The Bidder withdraws their Bid during the period of Bid validity specified by them on the Bid letter form.

2. Bidder does not respond to requests for clarification of their Bid.

3. Bidder fails to co-operate in the Bid evaluation process, and In case of a successful Bidder, the said Bidder fails:
   - To sign the Service Level Agreement in time
   - To furnish Performance Bank Guarantee

Price Comparison: -

To arrive at the lowest (technically acceptable) offer GBU will consider the total proposed solutions price with a 5-year on-site warranty (converted into Indian rupees equivalent) GBU will not consider L1 Bidder for each item separately at the time of opening of financial bids.

No Negotiation: -

The Bidders need to quote the **lowest price** at the time of making the offer in their interest, as the GBU will not enter into any further price negotiations except with the lowest quoting Bidder whose offer is found to be technically acceptable.

Short-listing of Bidders: -

The commercial offers of the Bidders whose technical offers are found to be technically deficient or if they do not meet the qualification criteria as specified in this Inquiry will not be opened.

Evaluation process: -

The evaluation process of the tender proposed to be adopted by the GBU is indicated under this clause. The purpose of this clause is only to provide the Bidders with an idea of the evaluation process that the GBU may adopt. However, the GBU reserves the right to modify the evaluation process at any time during the Tender process, without assigning any reason, whatsoever and without any requirement to inform the Bidders of any such change.

Evaluation of bid: -

Bidders need to fulfil all the technical criteria and conditions mentioned in the RFP document. GBU will examine the bids to determine whether they are complete, whether the bid format confirms the Tender's requirements, whether any computational errors have been made, whether required EMD has been furnished, whether the documents have been properly signed, and whether the bids are in order including Techno commercial compliance.

The criteria prescribed concerning specifications of items, years of operation in the business experience of a similar class of work completed, etc will first be scrutinized and the Bidder's eligibility for the work will be determined.

As a part of the process of evaluating the technical bids, the Tender Evaluation Committee may also ask the Bidders to make a presentation/ demonstration before it.

After evaluating the technical bids and on acceptance, then only financial bids will be opened.

L1 Bidder for total items as the solution would be decided at the time of opening of financial bids. GBU GANDHINAGAR will award work to the Bidder whose bid is substantially responsive and has been determined as the lowest evaluated bid, provided further that the Bidder is determined to be competent to perform the work order satisfactorily.

It must be kept in view that no decision will be given by the Tender Evaluation Committee. Any inferences drawn during the meeting of this Committee by the Bidders, or their representatives will be their view and the Institute will not abide by the same.

Supply order shall be awarded to a single Bidder based on the bid value of total items.

A bid determined as not substantially responsive will be rejected by the GBU and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

Bids not considered for evaluation: -

Bids that are rejected during the bid opening process due to incomplete documentation or late receipt shall not be considered for further evaluation.

Contacting GBU: -

Bidder shall not approach GBU officers outside of office hours and/ or outside GBU office premises, from the time of the Bid opening to the time the work order is awarded.

Any effort by a Bidder to influence GBU officers in the decisions on Bid evaluation, bid comparison, or work-order award may result in the rejection of the Bidder's offer. If the Bidder wishes to bring additional information to the notice of the GBU, it should do so in writing.

No withdrawal after submission of bids: -

Bidder shall not be permitted to withdraw his / her / its offer or modify the terms and conditions thereof after acceptance of tender. In case the Bidder fails to observe and comply with the stipulations made herein or backs out after quoting the rate, the aforesaid amount of Earnest Money and Security Deposit

will be forfeited by the Institute. Besides this, the Bidder may also be liable to be debarred/ blacklisted from participating in the tendering process of GBU GANDHINAGAR in the future, and/or a suitable penalty may be levied.

GBU GANDHINAGAR's Rights

(i) GBU Gandhinagar reserves the right to accept/reject any or all the bids in whole or in part and cancel the bidding process without assigning any reason whatsoever and is not bound to accept the lowest tender.

(ii) GBU GANDHINAGAR also reserves the right to modify and/ or relax any terms & conditions of this tender document before the last date of submission of tenders to safeguard its interest.

(iii) Any failure on the part of the Bidder to observe the prescribed procedure and any attempt to canvass/influence GBU for the furtherance of his/her interest, the Bidder's quotation will be cancelled forthwith. The decision of GBU in this regard will be final.

(iv) GBU reserves the right to cancel the tender process without assigning any reason whatsoever, at any stage, in case of any change in requirement.

(v) GBU reserves the right to blacklist a Bidder for a suitable period in case the Bidder fails to honour its bid after the award of work without sufficient grounds.

(vi) GBU reserves the right to alter the quantities specified in the bid in the event of requirement changes. No Bidder will be allowed to change the Financial bid if GBU decides to drop any items from the schedule.

(vii) All the items, for which financial bids are submitted, should be genuine and of the specified branded company. If the material supplied is found to be of non-genuine/ substandard quality, the same will be returned/ replaced at the cost of the Bidder and the GBU will not be responsible for any loss to the concerned Bidder for such supply.

(viii) Right to vary Quantities at Time of Award: GBU reserves the right to increase or decrease the quantity of goods and services originally specified in the tender without any change in unit price or other terms and conditions.

(ix) GBU Reserves the right to accept or reject any bid, to cancel the bidding process, and to reject all bids at any time before the award of the work order.

Repeat Orders: -

GBU GANDHINAGAR reserves its right to place an additional repeat order for a quantity equal to or below the items/ equipment covered in this tender at the same price and terms within six months of the date of release of the purchase order.

Security Deposit, Tender Fee and EMD: -

Before the expiration of the period of Bid validity, GBU Gandhinagar will notify the successful Bidder and issue a work order/ purchase order after which the Bidder needs to submit the security deposit in the form of a Bank Guarantee (BG)/ Demand Draft within fifteen (15) working days of receipt of the award. The Bank Guarantee/ Demand Draft shall be equal to 5% of the total value of the purchase/work order. The Bank Guarantee shall be valid for the duration of a Warranty period plus 60 days.

The Bank Guarantee / Demand Draft will remain with GBU GANDHINAGAR for the period of warranty plus 60 days and will be returned to the selected Bidder after certification by GBU. No interest will be payable on the EMD / security deposit.

Upon the successful Bidder's furnishing of Performance Bank Guarantee / Demand Draft and signing of

Contractual documents, The EMD of all Bidders will be refunded within 10 days through NEFT / RTGS and for this, they have submitted all banking details after placement of purchase order/ supply order.

GBU GANDHINAGAR shall be at liberty to set off /adjust the proceeds of the Performance Bank Guarantee/ Demand Draft towards the loss, if any, sustained due to the Bidder's failure to complete its obligations under the work order. This is without prejudice to GBU GANDHINAGAR's right to proceed against the Bidder in the event of the security being not enough to fully cover the loss/damage

Tender Fee (Nonrefundable)	:	**As mentioned in [section 2 (2.1)]**. If any supplier downloaded a tender document from GBU's website send us the above amount separately in the form of a DD/Pay Order with the Sealed Technical offer.
Earnest Money Deposit EMD	:	**As mentioned in [section 2 (2.1)]**, by D.D / Pay order of Nationalised Bank in favor of Gujarat Biotechnology University payable at Gandhinagar.
Performance Bank Guarantee	:	**As mentioned in [section 2 (2.1)]**.

1. If the offer is submitted by OEM / Mfg. Co. Directly, Earnest Money Deposit is not required but the OEM / Mfg. Co. Have to submit a Performance Bank Guarantee of 3% of the total order value up to the warranty period + 3 Months before a formal purchase/work order is issued.

2. If an offer is submitted by authorized distributors/dealers, EMD of 2,05,000/- (Two Lakh five thousand only) should be submitted along with the offer by the way of Demand Draft / Pay Order should be drawn on any Nationalized Bank favoring "Gujarat Biotechnology University" and payable at Gandhinagar.

Purchase Order of Goods to be procured in INR

For supply and services for the goods whose value is quoted in INR GBU will issue one single PO for the same and the payment terms will be as per the payment as per the RFP Terms and Conditions.

Payments terms

	INR
1	No advance payment will be made
2	After submission of PBG as mentioned in the RFP and after receipt of deliveries within 15 days, 90% payment of the invoice value of deliveries shall be released. These terms are applicable to INR Order which will be released for the supply part.
3	10% After completion of work and Final acceptance and Testing
4	Item-wise, the rates of all taxes must be indicated. Whenever chargeable S.T/ G. S. T / C. S. T numbers must be indicated. It will be deemed that no Taxes are payable by us if such items are not indicated.
5	The vendor shall be entirely responsible for all taxes duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser

Section 5A

Terms and Conditions

Delivery, Installation, Commissioning: -

The Bidder shall be responsible for the Shipment, delivery, and installation of **Servers, Storage, Network Switches, Smart Rack, and UPS components** at the site (GBU Gift City Campus) and for making it operational at no additional charges as follows:

Shipment of **Servers, Storage, Network Switches, Smart Rack, and UPS components** within 12 weeks from the date of Purchase Order.

Installation of various **Servers, Storage, Network Switches, Smart Rack, and UPS components** equipment within 16 weeks from the date of material received at GBU Gandhinagar campus.

If the Bidder fails to ship and install the **Servers, Storage, Network Switches, Smart Rack, and UPS components** within the stipulated time as mentioned in the schedule, GBU reserves the right to claim the liquidated damages and cancel the purchase order.

At the discretion of GBU GANDHINAGAR, there will be an acceptance test conducted by GBU GANDHINAGAR's technical team members and/or its nominated consultants after installation.

Order Cancellation: -

GBU GANDHINAGAR reserves its right to cancel the Purchase Order at any time by assigning appropriate reasons in the event of one or more of the following conditions:

If after the award of the work order, the Bidder fails to furnish the Performance Bank guarantee within fifteen (15) working days, along with the inception report and working schedule as per the tender requirements & if the operation is not started within fifteen (15) working days after submission of P.B.G. as mentioned.

- Delay in delivery beyond the specified period for delivery.
- Delay in installation beyond the specified period in the Tender.
- Serious discrepancy noticed during the inspection.

GBU reserves the right to cancel the work order and apply all remedies available under the terms and conditions of the work order.

OEM: -
AI Server, Master Node and Storage to be from same.

Software: -

The Bidder will supply all the genuine original Bundled software as applicable. If any software is found to be fake, the performance guarantee/security deposit along with EMD will be forfeited, Bidder will be blacklisted, and legal proceedings will be initiated by the Institute.

Warranty: -

The bid must include a minimum **five-year comprehensive on-site warranty with 24 x 7 Support** including licensing if any as per tender specifications.
During the warranty period, If there is a hardware failure the bidder will replace the hardware, and re-install the software that was installed on the hardware, at no additional charge.

The Bidder shall be fully responsible for the manufacturer's warranty for proper design, quality, and workmanship. Bidder must warrant all components, accessories, spare parts, etc. against any manufacturing defects during the warranty period. During the warranty period, Bidder shall maintain and repair/replace at the site all defective components, at no charge to GBU GANDHINAGAR.

The warranty shall include all spares, accessories, labour and preventive maintenance from the date of completion of the satisfactory installation and acceptance till warranty period. In case, if replacement of a part becomes necessary during the warranty period, the parts of the same make and same or better configurations as were originally there in the equipment shall be used and should be compatible. The supplier/vendor shall maintain details of the replacements and repairs carried out, if any, in any equipment in a separate document and produce the details as and when required. The cost of the parts will be borne by the supplier. If any replacements need to be made the same should be done by the bidder at their expense and cost. The institute will provide only required documents. In cases where the repairs made to the instrument/equipment are not satisfactory the purchaser can insist for replacement with a new one in its place during warranty period. Warranty shall be provided On-site at GBU, in case, instrument is required to be transported to service centre it should be at the cost of seller, GBU will not pay any charges.

BIDDER/OEM must have Dedicated/toll Free Telephone No. along with Escalation Matrix for Service Support and to address technical query(ies) promptly

End-of-Sale / obsolete components: -

Bidders must bid on the latest model that is not announced by the principals as an end-of-sale product or obsolete at the time of shipment.

Spare parts: -

If any of the components are not available during the warranty/AMC period, in such case, Bidder must replace it with equivalent or higher capacity. If specified in the List of Requirements and in the resultant contract, the supplier shall supply/provide any or all of the following materials, information etc. pertaining to spare parts manufactured and/or supplied by the supplier:

Support: -

Bidders are also required to submit details like the address of the nearest support center, detailed support escalation matrix, and number of service engineers available along with their names, telephone/mobile numbers, for warranty/AMC service, etc.

Penalties: -

Delay in shipment, delivery, and installation: GBU GANDHINAGAR will charge a penalty @ **0.5% of the** total order value per week for the delay in shipment, delivery, and installation of **Servers, Storage, Network Switches, Smart Rack, and UPS components** at GBU GANDHINAGAR campus beyond 16 weeks from the date of the purchase order, subject to a maximum 10% of the total order value. After the maximum penalty value is reached, GBU GANDHINAGAR will initiate necessary action as per the terms of the tender.

Delay in repair: -

Servers, Storage, Network Switches, Smart Rack, and UPS components that are reported to be down on a given date should be either fully repaired or replaced within 3 working days. The problem reported by GBU GANDHINAGAR will be through a telephonic message or any other mode of communication as GBU GANDHINAGAR may decide.

In case Bidder fails to repair or replace the **Servers, Storage, Network Switches, Smart Rack, and UPS components** within 3 working days, there will be a penalty @ 2,000/- per day from the third day.

Termination: -

GBU GANDHINAGAR may at any time terminate the work order by giving written notice to the Bidder if the Bidder becomes bankrupt or otherwise insolvent. In this event, termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the GBU GANDHINAGAR.

Quality Standards: -

GBU GANDHINAGAR is looking for well well-proven/designed and quality product. All items quoted should be associated with specific model numbers and names and with literature. Any deviations from the specifications should be listed in the Annexure called "deviations" giving reasons thereof.

Assignment & subcontracts: -

Assignment by Bidder: -
The Bidder shall not assign, in whole or in part, its rights and obligations to perform under the Agreement to a third party, except with the prior written consent from GBU.

Sub Contracts: -

The Bidder shall notify the GBU in writing of all subcontracts awarded under the WorkOrder Agreement. Such notification shall not relieve the Bidder from any liability or obligation under the Agreement. The Bidder shall fully indemnify GBU for any claims/damages whatsoever arising out of the Subcontracts.

Service terms:-

Bidder must deploy qualified professionals to install, commission & maintain the equipment, as defined under the scope of work.

Indemnity:-

Bidder shall indemnify, protect, and save GBU GANDHINAGAR against all claims, losses, costs, damages, expenses, action suits, and other proceedings, resulting from infringement of any patent, trademarks, copyrights, etc. or such other statutory infringements in respect of all the items supplied by Bidder.

Original Hardware and Software:-

The bidder should guarantee that all the components delivered to GBU GANDHINAGAR are genuine and brand new. In the case of software, the Bidder should guarantee that the software supplied to GBU is licensed and legally obtained. All hardware and software must be supplied with their original and complete printed documentation. If any hardware and software are found to be fake, the security deposit (including EMD) will be forfeited, Bidder will be blacklisted, and legal proceedings will be initiated by the Institute.

Force Majeure:-

Bidder shall not be liable for default or non-performance of the obligations under the work- order, if such default or non-performance of the obligations under this work order is caused by any reason or circumstances or occurrences beyond the control of the Bidder, i.e. Force Majeure.
For this clause, "Force Majeure" shall mean an event beyond the control of the Bidder, due to or as a

result of or caused by acts of God, wars, insurrections, riots, earthquake, natural calamity, and fire, events not foreseeable but does not include the Bidder's fault or negligence or carelessness on the part of the Bidder, resulting in such a situation.

In the event of any such intervening Force Majeure, the Bidder shall notify GBU in writing of such circumstances and the cause thereof immediately within five calendar days. Unless otherwise directed by GBU, the Bidder shall continue to perform/render/discharge other obligations as far as they can reasonably be attended/fulfilled and shall seek all reasonable alternative means for performance affected by the Event of Force Majeure.

In such a case, the time for performance shall be extended by a period(s) not less than the duration of such delay. If the duration of delay continues beyond a period of three months, GBU GANDHINAGAR and the Bidder shall hold consultations with each other in an endeavor to find a solution to the problem. Notwithstanding the above, the decision of GBU GANDHINAGAR shall be final and binding on the Bidder.

Resolution of Disputes:-

All disputes and differences of any kind whatsoever, arising out of or in connection with this Bid or the discharge of any obligation arising under this Bid (whether during the progress of the work or after completion of such work and whether before or after termination, abandonment or breach of the Agreement) shall be resolved amicably. In case of failure to resolve the disputes and differences amicably, the matter may be referred to a sole arbitrator mutually agreed upon after issuing at least 30 days' notice in writing to the other party setting out there in the specific disputes. In the event of the absence of consensus about the single arbitrator, the dispute may be referred to joint arbitrators, one to be nominated by each party, and the said arbitrators shall appoint a presiding arbitrator. The provisions of the Indian Arbitration and Conciliation Act, 1996, shall govern the arbitration. The venue of the arbitration shall be **Gandhinagar**.

Jurisdiction:-

In the event of any dispute not resolved amicably as enumerated in the clause above, Gandhinagar shall be considered as the place of execution of this work-order arrangement and only courts in Gandhinagar alone shall have jurisdiction in the matter.

SECTION 6

Technical Specifications

SERVER NODE for Bioinformatics without GPU.

Parameter	Detailed Functional Requirement & Technical Specifications	Compliance Yes / No	Remarks
Chassis	2U Rack Mountable		
CPU	Two numbers of latest 5th Generation Intel/AMD Processor with 48-cores each and clock speed 2.3GHz or higher and better		
Chipset	Intel C741 Chipset or equivalent AMD chipset		
Memory	24 DIMM slots or Higher..		
	1 TB DIMMS scalable up to 4.0 TB or Higher using DDR5 Registered DIMM (RDIMM) operating at 4800 MT/s **or more.**		
Bus Slots	Server should support up to six PCI-Express 5.0 x16 slots.		
BOOT optimized storage	2 x 480GB M.2 NVMe Hot Plug Boot Optimized Storage in RAID 1		
HDD Bays	20TB usable capacity on NVMe. 4 x 7.68TB NVMe SSD		
RAID Controller	Embedded / PCIe based RAID controller with 8GB Flash backed write cache supporting RAID 0, 1, 5, 6, 10, 50, 60.		
	Must support mix-and-match SAS, SATA, and NVMe drives to the same controller. Controller must support 6G SATA, 12G SAS, 16G NVMe.		
	Above mentioned controller must support following :		
	1. Hardware root of trust and secure encryption and decryption of critical drive data		
	2. Online Capacity Expansion (OCE)		
	3. Global and dedicated Hot Spare with Revertible Hot		
	4. Instant Secure Erase		
	5. Migrate RAID/Stripe Size		
	6. Modifying Cache Write Policy		
	7. Move Logical Drive		
Networking features	Server should be provisioned with below networking cards from day one:		
	1. 1Gb 4-port network adaptors		
	2. 2 x 10/25Gb 2-port SFP28 Ethernet adaptor		

	Infiniband Options Support for future expansions : 100Gb or 200Gb Single or Dual port Adapter		
GPU Compatibility	Proposed server make and model should be NVIDIA certified system for NVIDIA H100 NVL GPU and this information should be available on public domain.		
Interfaces	Serial - 1 (Optional)		
	USB support with Up to 4 total: 1 front, 2 rear, 1 internal		
	1GbE Dedicated management port		
Power Supply	Should support hot plug redundant low halogen power supplies with minimum 94% efficiency		
Fans	Redundant hot-plug system fans		
Industry Standard Compliance	ACPI 6.1 Compliant		
	PCIe 5.0 Compliant		
	WOL Support		
	Microsoft® Logo certifications		
	PXE Support		
	Energy Star		
	SMBIOS 3.1		
	UEFI 2.7		
	Redfish API		
	IPMI 2.0		
	Secure Digital 2.0		
	Advanced Encryption Standard (AES)		
	Triple Data Encryption Standard (3DES)		
	SNMP v3		
	TLS 1.2		
	DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)		
	Active Directory v1.0		
	ASHRAE A3/A4		
System Security	UEFI Secure Boot and Secure Start support		
	Tamper-free updates - components digitally signed and verified		
	Immutable Silicon Root of Trust		
	Ability to rollback firmware		
	FIPS 140-2 validation		
	Secure erase of NAND/User data		
	Common Criteria certification		
	Configurable for PCI DSS compliance		
	TPM (Trusted Platform Module) 2.0 option		
	Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser		

	Bezel Locking Kit option		
	Support for Commercial National Security Algorithms (CNSA)		
	Chassis Intrusion detection option		
	Secure Recovery - recover critical firmware to known good state on detection of compromised firmware		
Operating Systems and Virtualization Software Support	Windows Server		
	Red Hat Enterprise Linux (RHEL)		
	SUSE Linux Enterprise Server (SLES)		
	VMware ESXi		
	Oracle Linux and Oracle VM		
	Citrix		
Provisioning	1. Should support tool to provision server using RESTful API to discover and deploy servers at scale.		
	2. Provision one to many servers using own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell.		
Firmware security	1. For firmware security, system should support remote management chip creating a fingerprint in the silicon, preventing servers from booting up unless the firmware matches the fingerprint.		
	2. Should maintain repository for firmware and drivers recipes to aid rollback or patching of compromised firmware. Should also store Factory Recovery recipe preloaded to rollback to factory tested secured firmware.		
Embedded Remote Management and firmware security	1. System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive. It should be capable of offering upgrade of software and patches from a remote client using Media/image/folder.		
	2. Server should have dedicated 1Gbps remote management port.		
	3. Server should support storage space earmarked to be used as a repository for firmware, drivers and software components. The components can be organized in to install sets and can be used to rollback/patch faulty firmware.		
	4. Server should support agentless management using the out-of-band remote management port.		

	5. Local or Directory-based user accounts with Role based access control.		
	6. Remote console sharing up to 6 users simultaneously during pre-OS and OS runtime operation, Console replay - Console Replay captures and stores for replay the console video during a server's last major fault or boot sequence. Microsoft Terminal Services Integration, 128 bit SSL encryption and Secure Shell Version 2 support. Should provide support for AES and 3DES on browser. Should provide remote firmware update functionality. Should provide support for Java free graphical remote console.		
Embedded Remote Management and firmware security	7. Should support RESTful API integration.		
	8. System should support embedded remote support to transmit hardware events directly to OEM or an authorized partner for automated phone home support.		
	9. Server should have security dashboard: displaying the status of important security features, the Overall Security Status for the system, and the current configuration for the Security State and Server Configuration Lock features.		
	10. One-button Secure Erase designed to decommission/repurpose servers.		
	11. Workload Performance Advisor - Provides server tuning recommendations to improve server performance.		
Server Management	Software should support dashboard view to quickly scan the managed resources to assess the overall health of the data center. It should provide an at-a-glance visual health summary of the resources user is authorized to view.		
	The Dashboard minimum should display a health summary of the following:		
	• Server Profiles		
	• Server Hardware		
	• Appliance alerts		
	The Systems Management software should provide Role-based access control.		
	Management software should support integration with popular virtualization platform management software like VMware vCenter & vRealize Operations,		

	and Microsoft System Center & Admin Center.		
	Should help provide proactive notification of actual or impending component failure alerts on critical components like CPU, Memory and HDD.		
	Should help to proactively identify out-of-date BIOS, drivers, and Server Management agents and enable the remote update of system software/firmware components.		
	Should have dashboard for firmware baselines while performing minimum required firmware checks and highlighting out-of-compliance devices for updates with the selected firmware baseline.		
Same OEM	Offered Servers and Storage must be from same OEM.		
Warranty & Installation Services from OEM	5Years 24x7x365 onsite comprehensive OEM Warranty. Warranty and Installation Services including break-fix, diagnosis, call-logging, reporting, fault identification, fault rectification, part replacement, configuration, spare management, spare movement etc. all pertaining to supplied hardware infrastructure have to be mandatorily owned and delivered by OEM Engineers. OEM should furnish undertaking on letterhead duly signed by company director or company secretary confirming the same at the time of bid submission.		

AI SERVER NODE for Bioinformatics with GPU.

Parameter	Detailed Functional Requirement & Technical Specifications	Compliance Yes / No	Remarks
Chassis	2U Rack Mountable		
CPU	Two numbers of latest 5th Generation Intel/AMD Processor with 48-cores each and clock speed 2.3GHz or higher and better		
Chipset	Intel C741 Chipset or equivalent AMD chipset		
Memory	24 DIMM slots or Higher..		
	1 TB DIMMS scalable up to 4.0 TB or Higher using DDR5 Registered DIMM (RDIMM) operating at 4800 MT/s **or more.**		
Bus Slots	Server should support up to six PCI-Express 5.0 x16 slots.		
BOOT optimized storage	2 x 480GB M.2 NVMe Hot Plug Boot Optimized Storage in RAID 1		
HDD Bays	20TB usable capacity on NVMe. 4 x 7.68TB NVMe SSD		
RAID Controller	Embedded / PCIe based RAID controller with 8GB Flash backed write cache supporting RAID 0, 1, 5, 6, 10, 50, 60.		
	Must support mix-and-match SAS, SATA, and NVMe drives to the same controller. Controller must support 6G SATA, 12G SAS, 16G NVMe.		
	Above mentioned controller must support following :		
	1. Hardware root of trust and secure encryption and decryption of critical drive data		
	2. Online Capacity Expansion (OCE)		
	3. Global and dedicated Hot Spare with Revertible Hot		
	4. Instant Secure Erase		
	5. Migrate RAID/Stripe Size		
	6. Modifying Cache Write Policy		
	7. Move Logical Drive		
Networking features	Server should be provisioned with below networking cards from day one:		
	1. 1Gb 4-port network adaptors		
	2. 2 x 10/25Gb 2-port SFP28 Ethernet adaptor		
	Infiniband Options Support for future expansions : 100Gb or 200Gb Single or Dual port Adapter		
Graphics Cards & Software	Server should be capable of housing 1 x NVIDIA H100 NVL 94GB PCIe Accelerator in future within the same server chassis itself.		

GPU Compatibility	Proposed server make and model should be NVIDIA certified system for NVIDIA H100 NVL GPU and this information should be available on public domain.		
Interfaces	Serial - 1 (Optional)		
	USB support with Up to 4 total: 1 front, 2 rear, 1 internal		
	1GbE Dedicated management port		
Power Supply	Should support hot plug redundant low halogen power supplies with minimum 94% efficiency		
Fans	Redundant hot-plug system fans		
Industry Standard Compliance	ACPI 6.1 Compliant		
	PCIe 5.0 Compliant		
	WOL Support		
	Microsoft® Logo certifications		
	PXE Support		
	Energy Star		
	SMBIOS 3.1		
	UEFI 2.7		
	Redfish API		
	IPMI 2.0		
	Secure Digital 2.0		
	Advanced Encryption Standard (AES)		
	Triple Data Encryption Standard (3DES)		
	SNMP v3		
	TLS 1.2		
	DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)		
	Active Directory v1.0		
	ASHRAE A3/A4		
System Security	UEFI Secure Boot and Secure Start support		
	Tamper-free updates - components digitally signed and verified		
	Immutable Silicon Root of Trust		
	Ability to rollback firmware		
	FIPS 140-2 validation		
	Secure erase of NAND/User data		
	Common Criteria certification		
	Configurable for PCI DSS compliance		
	TPM (Trusted Platform Module) 2.0 option		
	Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser		
	Bezel Locking Kit option		
	Support for Commercial National Security Algorithms (CNSA)		

	Chassis Intrusion detection option		
	Secure Recovery - recover critical firmware to known good state on detection of compromised firmware		
Operating Systems and Virtualization Software Support	Windows Server		
	Red Hat Enterprise Linux (RHEL)		
	SUSE Linux Enterprise Server (SLES)		
	VMware ESXi		
	Oracle Linux and Oracle VM		
	Citrix		
Provisioning	1. Should support tool to provision server using RESTful API to discover and deploy servers at scale.		
	2. Provision one to many servers using own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell.		
Firmware security	1. For firmware security, system should support remote management chip creating a fingerprint in the silicon, preventing servers from booting up unless the firmware matches the fingerprint.		
	2. Should maintain repository for firmware and drivers recipes to aid rollback or patching of compromised firmware. Should also store Factory Recovery recipe preloaded to rollback to factory tested secured firmware.		
Embedded Remote Management and firmware security	1. System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive. It should be capable of offering upgrade of software and patches from a remote client using Media/image/folder.		
	2. Server should have dedicated 1Gbps remote management port.		
	3. Server should support storage space earmarked to be used as a repository for firmware, drivers and software components. The components can be organized in to install sets and can be used to rollback/patch faulty firmware.		
	4. Server should support agentless management using the out-of-band remote management port.		
	5. Local or Directory-based user accounts with Role based access control.		

	6. Remote console sharing up to 6 users simultaneously during pre-OS and OS runtime operation, Console replay - Console Replay captures and stores for replay the console video during a server's last major fault or boot sequence. Microsoft Terminal Services Integration, 128 bit SSL encryption and Secure Shell Version 2 support. Should provide support for AES and 3DES on browser. Should provide remote firmware update functionality. Should provide support for Java free graphical remote console.		
Embedded Remote Management and firmware security	7. Should support RESTful API integration.		
	8. System should support embedded remote support to transmit hardware events directly to OEM or an authorized partner for automated phone home support.		
	9. Server should have security dashboard: displaying the status of important security features, the Overall Security Status for the system, and the current configuration for the Security State and Server Configuration Lock features.		
	10. One-button Secure Erase designed to decommission/repurpose servers.		
	11. Workload Performance Advisor - Provides server tuning recommendations to improve server performance.		
Server Management	Software should support dashboard view to quickly scan the managed resources to assess the overall health of the data center. It should provide an at-a-glance visual health summary of the resources user is authorized to view.		
	The Dashboard minimum should display a health summary of the following:		
	• Server Profiles		
	• Server Hardware		
	• Appliance alerts		
	The Systems Management software should provide Role-based access control.		
	Management software should support integration with popular virtualization platform management software like VMware vCenter & vRealize Operations, and Microsoft System Center & Admin Center.		

	Should help provide proactive notification of actual or impending component failure alerts on critical components like CPU, Memory and HDD.		
	Should help to proactively identify out-of-date BIOS, drivers, and Server Management agents and enable the remote update of system software/firmware components.		
	Should have dashboard for firmware baselines while performing minimum required firmware checks and highlighting out-of-compliance devices for updates with the selected firmware baseline.		
Same OEM	Offered Servers and Storage must be from same OEM.		
Warranty & Installation Services from OEM	5Years 24x7x365 onsite comprehensive OEM Warranty. Warranty and Installation Services including break-fix, diagnosis, call-logging, reporting, fault identification, fault rectification, part replacement, configuration, spare management, spare movement etc. all pertaining to supplied hardware infrastructure have to be mandatorily owned and delivered by OEM Engineers. OEM should furnish undertaking on letterhead duly signed by company director or company secretary confirming the same at the time of bid submission.		

MASTER NODE / HEAD NODE for Bioinformatics.

Parameter	Detailed Functional Requirement & Technical Specifications	Compliance Yes / No	Remarks
Chassis	2U Rack Mountable		
CPU	Two numbers of latest 4th Generation / 5th Generation Intel/AMD Processor with 8-cores each and clock speed 2.8GHz or higher and better		
Chipset	Intel C741 Chipset or equivalent AMD chipset		
Memory	24 DIMM slots or Higher.. 256 GB DIMMS scalable up to 4.0 TB or Higher using DDR5 Registered DIMM (RDIMM) operating at 4800 MT/s **or more.**		
Bus Slots	Server should support up to six PCI-Express 5.0 x16 slots.		
BOOT optimized storage	2 x 480GB M.2 NVMe Hot Plug Boot Optimized Storage in RAID 1		

HDD Bays	2 x 960GB NVMe RI SSD		
RAID Controller	Embedded / PCIe based RAID controller with 8GB Flash backed write cache supporting RAID 0, 1, 5, 6, 10, 50, 60.		
	Must support mix-and-match SAS, SATA, and NVMe drives to the same controller. Controller must support 6G SATA, 12G SAS, 16G NVMe.		
	Above mentioned controller must support following :		
	1. Hardware root of trust and secure encryption and decryption of critical drive data		
	2. Online Capacity Expansion (OCE)		
	3. Global and dedicated Hot Spare with Revertible Hot		
	4. Instant Secure Erase		
	5. Migrate RAID/Stripe Size		
	6. Modifying Cache Write Policy		
	7. Move Logical Drive		
Networking features	Server should be provisioned with below networking cards from day one:		
	1. 1Gb 4-port network adaptors		
	2. 2 x 10/25Gb 2-port SFP28 Ethernet adaptor		
	Infiniband Options Support for future expansions : 100Gb or 200Gb Single or Dual port Adapter		
GPU Compatibility	Proposed server make and model should be NVIDIA certified system for NVIDIA H100 NVL GPU and this information should be available on public domain.		
Interfaces	Serial - 1 (Optional)		
	USB support with Up to 4 total: 1 front, 2 rear, 1 internal		
	1GbE Dedicated management port		
Power Supply	Should support hot plug redundant low halogen power supplies with minimum 94% efficiency		
Fans	Redundant hot-plug system fans		
Industry Standard Compliance	ACPI 6.1 Compliant		
	PCIe 5.0 Compliant		
	WOL Support		
	Microsoft® Logo certifications		
	PXE Support		
	Energy Star		
	SMBIOS 3.1		
	UEFI 2.7		
	Redfish API		
	IPMI 2.0		

	Secure Digital 2.0		
	Advanced Encryption Standard (AES)		
	Triple Data Encryption Standard (3DES)		
	SNMP v3		
	TLS 1.2		
	DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)		
	Active Directory v1.0		
	ASHRAE A3/A4		
System Security	UEFI Secure Boot and Secure Start support		
	Tamper-free updates - components digitally signed and verified		
	Immutable Silicon Root of Trust		
	Ability to rollback firmware		
	FIPS 140-2 validation		
	Secure erase of NAND/User data		
	Common Criteria certification		
	Configurable for PCI DSS compliance		
	TPM (Trusted Platform Module) 2.0 option		
	Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser		
	Bezel Locking Kit option		
	Support for Commercial National Security Algorithms (CNSA)		
	Chassis Intrusion detection option		
	Secure Recovery - recover critical firmware to known good state on detection of compromised firmware		
Operating Systems and Virtualization Software Support	Windows Server		
	Red Hat Enterprise Linux (RHEL)		
	SUSE Linux Enterprise Server (SLES)		
	VMware ESXi		
	Oracle Linux and Oracle VM		
	Citrix		
Provisioning	1. Should support tool to provision server using RESTful API to discover and deploy servers at scale.		
	2. Provision one to many servers using own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell.		
Firmware security	1. For firmware security, system should support remote management chip creating a fingerprint in the silicon, preventing servers from booting up unless the firmware matches the fingerprint.		

	2. Should maintain repository for firmware and drivers recipes to aid rollback or patching of compromised firmware. Should also store Factory Recovery recipe preloaded to rollback to factory tested secured firmware.		
Embedded Remote Management and firmware security	1. System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive. It should be capable of offering upgrade of software and patches from a remote client using Media/image/folder.		
	2. Server should have dedicated 1Gbps remote management port.		
	3. Server should support storage space earmarked to be used as a repository for firmware, drivers and software components. The components can be organized in to install sets and can be used to rollback/patch faulty firmware.		
	4. Server should support agentless management using the out-of-band remote management port.		
	5. Local or Directory-based user accounts with Role based access control.		
	6. Remote console sharing up to 6 users simultaneously during pre-OS and OS runtime operation, Console replay - Console Replay captures and stores for replay the console video during a server's last major fault or boot sequence. Microsoft Terminal Services Integration, 128 bit SSL encryption and Secure Shell Version 2 support. Should provide support for AES and 3DES on browser. Should provide remote firmware update functionality. Should provide support for Java free graphical remote console.		
Embedded Remote Management and firmware security	7. Should support RESTful API integration.		
	8. System should support embedded remote support to transmit hardware events directly to OEM or an authorized partner for automated phone home support.		
	9. Server should have security dashboard: displaying the status of important security features, the Overall Security Status for the system, and the current configuration for the		

	Security State and Server Configuration Lock features.		
	10. One-button Secure Erase designed to decommission/repurpose servers.		
	11. Workload Performance Advisor - Provides server tuning recommendations to improve server performance.		
Server Management	Software should support dashboard view to quickly scan the managed resources to assess the overall health of the data center. It should provide an at-a-glance visual health summary of the resources user is authorized to view.		
	The Dashboard minimum should display a health summary of the following:		
	• Server Profiles		
	• Server Hardware		
	• Appliance alerts		
	The Systems Management software should provide Role-based access control.		
	Management software should support integration with popular virtualization platform management software like VMware vCenter & vRealize Operations, and Microsoft System Center & Admin Center.		
	Should help provide proactive notification of actual or impending component failure alerts on critical components like CPU, Memory and HDD.		
	Should help to proactively identify out-of-date BIOS, drivers, and Server Management agents and enable the remote update of system software/firmware components.		
	Should have dashboard for firmware baselines while performing minimum required firmware checks and highlighting out-of-compliance devices for updates with the selected firmware baseline.		
Same OEM	Offered Servers and Storage must be from same OEM.		

Warranty & Installation Services from OEM	5Years 24x7x365 onsite comprehensive OEM Warranty. Warranty and Installation Services including break-fix, diagnosis, call-logging, reporting, fault identification, fault rectification, part replacement, configuration, spare management, spare movement etc. all pertaining to supplied hardware infrastructure have to be mandatorily owned and delivered by OEM Engineers. OEM should furnish undertaking on letterhead duly signed by company director or company secretary confirming the same at the time of bid submission.		

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CENTRAL NAS Infrastructure for Bioinformatics.

Parameter	Detailed Functional Requirement & Technical Specifications	Compliance Yes / No	Remarks
Storage	Offered Storage array shall be a Hybrid array supporting both SSD and spinning drives or NVMe drives.		
Operating System & Clustering Support	The storage array should support industry-leading Operating System platforms & clustering including: Windows Server 2019 / 2022, VMware 7/8, Linux and UNIX operating system etc.		
Capacity & Scalability	1. Offered storage array shall be supplied with 250TB usable capacity using SAS / SSD drives using minimum 10TB or Higher Capacity Drives. 2. Offered storage array shall be flexible on both Scale-up and Scale-out using array in-built firmware enabled clustering technology. Offered storage array shall be scalable to at-least 200TB capacity in scale-up and at-least 3PB in scale-out. Vendor shall provide the required documentary proof for the in-built firmware enabled clustering technology.		
Cache	1. Offered storage array shall have dual controller and to be supplied with at-least 128GB Data Cache per Controller for read and write operations. 2. Write operations shall be completely protected and there shall be no data loss in case of power failure. This mechanism must not rely on batteries.		
No Single point of Failure & Performance	1. Offered Storage Array shall be configured in a No Single Point of configuration including Array Controller card, Cache memory, FAN, Power supply etc. 2. There shall be minimal performance de-gradation due to a single component or controller failure.		

Disk Drive Support and Encryption	1. Offered Storage array shall support various capacities of NVME / SSD / SAS drives. 2. Offered Storage must support data encryption with day 1.		
RAID Support	1. Offered Storage array shall be provided with 2-drive failure protection simultaneously. In case vendor doesn't support it then array shall be sized in RAID 1. 2. For maximum disk capacity achievement - Vendor shall have the flexibility to put all offered drives in a single disk pool.		
Availability	1. Offered Storage model should have documented enterprise availability of 99.9999% or better. Documentary evidence of the same shall be available on public domain and same should be submitted along with the technical bid. 2. There shall be minimal performance de-gradation due to a single Controller failure. Vendor shall provide the documentary proof for same. 3. There shall be minimal performance de-gradation during critical support activities like Firmware upgrade, patch upgrade etc. 4. Offered Storage array shall offer checksums that go beyond the T10-PI standard. The checksums will automatically detect and prevent errors resulting from lost/misplaced reads or writes that T10-PI and equivalent check summing systems cannot remediate		

Monitoring, support and Analytics	1. Offered storage shall have monitoring support and analytics engine for proactive Storage management. All required licenses for same shall be included in the offer 2. Monitoring, support and analytics engine shall have capability to provide following: a. Providing Firmware upgrade and patch upgrade recommendations proactively. b. Providing extremely granular per-minute historical capacity and performance trend analysis. c. Performance analytics should be able to break down I/O into I/O size histograms, identify sequential vs random I/O and provide advice to remediate performance issues. d. Eliminate the need for the customer to provide array logs to support since support will have the required information automatically sent from the array.		

Monitoring, support and Analytics	e. Shall provide history of support cases logged with Support team with operational efficiencies. It shall clear demonstrates the percentage of support cases got closed automatically vs manual. f. Shall be able to provide the single executive Dashboard covering various critical and must aspects of space saving from data reduction technologies, data protection readiness for classified applications running on storage, and disaster recovery readiness for applications. g. Provide complete wellness chart of the array and allows the flexibility to define the wellness rule on the basis of defined conditions. h. Provide automated upgrade recommendations for both software and hardware, with specific instructions regarding what needs to be upgraded and by how much.		
HyperVisor Integration	Monitoring and analytics engine integration with Hypervisor a. Offered monitoring and analytics engine shall be tightly integrated with Hypervisor layer and shall be certified to work with at-least VMware. b. Monitoring and integration tool shall provide AI-based recommendations to improve Hypervisor infrastructure health. c. Monitoring and integration tool shall have capability to identify the top VMs which are contributing towards maximum IOs and Latency.		

Data console (Management)	Offered Storage **Vendor** should have data console for managing unlimited number of arrays. Data Console shall provide following functionalities: a. Common Dashboard for all managing multiple arrays through a single data console. b. Main Dashboard shall provide the information of Total number of Arrays, Volumes, hosts, Capacity and performance information of top Arrays and Volumes. c. Common role based access control for managing multiple arrays through a single data console instead of creating users and assigning roles individually at each array. d. Common Audit management for all arrays e. Shall have capability for tagging the Storage volume to given host applications so that performance charts can be drawn for application instance for easy management and troubleshooting.		
Investment Protection	1. Offered storage shall be non-disruptively scalable to higher generation series of storage array within the given family without any forklift upgrade. 2. There shall be minimal downtime while upgrading the storage to next generation model within the given series.		
Integration - VMWARE	Offered storage array shall be tightly integrated with VMware and shall be certified for VVOL. a. Shall be certified for vVol based replication b. Shall support both compression and de-duplication. c. Shall be qualified to work with both Fiber Channel and ISCSI. d. Shall support Scheduled snapshot and quality of service. e. Shall support encryption.		

Integration - Container	Offered Storage array shall be integrated with Red-hat OpenShift, Kubernetes and other industry K8 based container platform through CSI driver set. Vendor shall support at-least following functionalities through their CSI / CSP integration : a. Shall support both Static and Dynamic provisioning b. Shall be able to expand, re-size the persistent volumes given to statefulset applications. c. Shall be able to create and delete the snapshots. d. Shall support CSI Raw block volume as well as CSI Volume cloning e. Support for both Fiber channel as well as ISCSI.		
Host Ports	Offered Storage array shall be supplied with at-least dual controllers and 8 x 32Gbps FC ports across the controllers.		
Global Hot Spare	1. Offered Storage Array shall support distributed Global hot Spare for offered Disk drives. 2. Global hot spare shall be configure as per industry practice.		
Quality of service	1. Offered Storage array shall support and supplied with Quality of Services (QoS) for controlling the IOPS and MB/sec for a given LUN selectively. 2. Offered Storage array shall do QoS in order to prevent a single workload from taking over the array's performance.		
Thin Provisioning and Space optimization	1. Offered Storage shall support critical storage efficiency features - inline de-duplication, compression, thin provisioning at controller level. 2. Offered storage shall support both non-duplicated as well as duplicated volumes at the same time within the array. 3. Offered Storage shall support both non-compressed as well as compressed volumes at the same time within the array.		

Snapshot / Point in time copy	Offered Storage array shall support more than 1000 Snapshots per LUN / Volume. Vendor shall use efficient performance technology like re-direct on write or better.		
Remote Replication	1. Offered Storage shall support both Synchronous and Asynchronous storage based replication between data centre for effective data protection. 2. Offered Storage array shall have ability to replicate only incremental changes between two sites (Primary and Secondary). 3. Offered Storage array must support multiple Snapshots or Clones or Replications sessions without any impact to performance. 4. Offered Storage array must have capability to replicate data from All Flash to Hybrid Flash or Vice Versa within the given family of arrays. 5. Offered storage shall support FAN out asynchronous replication from primary array to at-least two secondary arrays for a given volume.		
Licenses	Vendor shall provide the license for all critical functionalities like Snapshot, Clone, QOS, Data Tiering, LUN Configuration and Management etc. for the maximum supported capacity of array. There shall be no additional software license requirement for future capacity upgrade. Any additional license required for meeting the RFP specification shall also be offered upfront.		
NAS Headers	Offered Storage Array shall be supplied with Dual NAS Headers with Microsoft Windows NAS, each NAS Header having atleast 16 Cores, 128 GB RAM, 2 x 960 Gb NVME, 2 x 25G SFP28 Port, Redundant Power supply and other relevant configuration in NSPOF configuration		

Same OEM	Offered Servers and Storage must be from same OEM.		
Warranty & Installation Services from OEM	5Years 24x7x365 onsite comprehensive OEM Warranty. Warranty and Installation Services including break-fix, diagnosis, call-logging, reporting, fault identification, fault rectification, part replacement, configuration, spare management, spare movement etc. all pertaining to supplied hardware infrastructure have to be mandatorily owned and delivered by OEM Engineers. OEM should furnish undertaking on letterhead duly signed by company director or company secretary confirming the same at the time of bid submission.		

TOP of Rack Switching Infra for Bioinformatics.

Parameter	Detailed Functional Requirement & Technical Specifications	Compliance Yes / No	Remarks
General Features	The switch should be Gigabit Layer 2 and Layer 3 switch with console, OOBM ports, USB ports along with all accessories.		
	Switch should have hot swappable redundant Power Supply and fan tray from day-1.		
	Switch should have non-blocking per-slot throughput from day 1.		
	Software upgrades, updates shall be included as part of the warranty		
	The switch should be based on programmable ASICs purpose-built to allow for a tighter integration of switch hardware and software to optimize performance and capacity		
	Switch should have integrated trusted platform module (TPM) for platform integrity to ensure the boot process is from trusted source		
	Operating temperature of 0°C to 45°C		
	All mentioned features (above & below) should be available from day 1. Any license required to be factored from day 1		
Port details	Switch should have 24 nos. of 1G/10G/25G SFP+/SFP28 ports		

	Apart from above ports switch should have 4 nos. of 40G/100G QSFP+/QSFP28 uplink ports.		
	Switch should be stacked on 200GBPS and necessary DAC cables or Transceivers should be included from day-1		
	Switch to server connectivity are on 25G and 14 nos. of 25G DAC cables if from same OEM or 14 nos. of single mode 25G transceiver should be populated in switch from day-1		
	Switch should be populated with 2 nos. of single mode 10g transceivers from day-1		
Performance	Should have 16GB DRAM		
	The switch will have at up to 1.6 Tbps or Higher switching capacity.		
	IPv4 Routing entry support: 600K or more.		
	IPv6 Routing entry support: 600K or more.		
	IPv4 and IPv6 Multicast Routes: 7K or more.		
	MAC addresses support: 200K or more.		
	VLANs ID: 4K or more and 4K VLANs simultaneously.		
	ACL /QOS entry support: 4K or more.		
	Packet buffer: 32 MB or more		
	The device should be IPv6 ready from day one.		
	Should support the ability to configure backup of the previous configuration automatically.		
Functionality	The Switch should attached the network devices using standard LACP for automatic load balancing and high availability.		
	The Switch should support long distance across the Rack and Floor Switch Stacking.		
	The switch should support IEEE 802.3x Flow Control		
	The switch should support STP, Trunking, Private VLAN (PVLAN), Q-in-Q, Deficit Weighted Round-Robin (DWRR) or equivalent scheduling,		
	Switch shall support rolled back to the previous successful configuration		

	The switch should support SNMPv1, v2, and v3, SSL, SSHv2, Telnet, ping, traceroute		
	The switch should support IEEE 802.1X		
	The switch should support Port-based authentication		
	The switch should support MAC-based authentication		
	The switch should provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number		
	The switch should support Source-port filtering		
	The switch should support RADIUS/TACACS+, Dynamic ARP protection, Port Security, STP route guard, BPDU guard.		
	OS should have support for Management automation via Netconf/Yang/REST-API, Python or equivalent technology		
	Should support Netflow/Sflow/Jflow, Port mirroring or equivalent technology		
Resiliency and high availability	The proposed switch should support distributed and redundant architecture by deploying two switches with each switch maintaining independent control and synchronized during upgrades or failover and should support upgrades during live operation.		
	The proposed switch should support Virtual Router Redundancy Protocol (VRRP)		
	The proposed switch should support Ethernet Ring Protection Switching (ERPS) to supports rapid protection and recovery in a ring topology.		
	The proposed switch should support Unidirectional Link Detection (UDLD)		
	The proposed switch should support IEEE 802.3x LACP with 50 link aggregation groups (LAGs), each with eight links per group, with a user-selectable hashing algorithm		
	The proposed switch should support High availability by design during upgrades, Live Upgrade with LACP traffic.		

	The proposed switch should support Separates control from services and keeps service processing isolated to increases security and performance		
Regulatory Compliance	Switch shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 or equivalent for Safety requirements of Information Technology Equipment.		
	Switch shall conform to EN 55022/55032 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B or equivalent for EMC (Electro Magnetic Compatibility) requirements.		
Same OEM	Offered Switches and its Accessories must be from same OEM. (excluding Passive Components)		
OEM qualification criteria, Warranty and Support	The switch shall be offered with minimum 5 years hardware warranty with Support and software updates/upgrades from OEM directly		
	All switches, transceivers components shall be from the same OEM.		
	Software upgrades/updates shall be included as part of the warranty		
	Switch or Switch's Operating System on different hardware platform should be tested for EAL 2/NDPP or above under Common Criteria Certification.		

Smart Rack with LCD Console

S. No	Description of Requirements	Compliance (Yes / No)	Comments
1	Scope of Work		
1.1	This specification covers Intelligent Integrated Smart Rack Infrastructure, standalone system design, engineering, manufacture, assembly, testing at manufacturer's works, supply, delivery at site, unloading, handling, proper storage at site, erection, testing and commissioning at site of complete infrastructure for the proposed Smart Rack solution to be installed at Rastriya Raksha Shakti University, Ahmedabad as detailed in the specification, complete with all accessories required for efficient and trouble-free operations		

1.2	The critical components of the smart rack solution can be maintained easily in the events of failure. All the components of the infrastructure should be such that it can be easily dismantled and relocated to different location.		
2	Requirements		
2.1	The Integrated Smart Rack Solution with inbuilt hot and cold aisle containment of 1 rack should cater IT load up to 7 kW with N+1 Redundancy.		
2.2	Integrated Smart Rack Solution essentially should include environmental controls, Rack mounted air conditioning, smoke detection & fire suppression, Water leak detection and humidity sensors and security devices. Environmental monitoring shall be done from IP based software.		
2.3	The Integrated smart rack solution must be CE Certified.		
2.4	The critical components like UPS, PAC cooling unit, Rack, rack PDU & Monitoring unit should be from same & single OEM for better integration & service support.		
3	The Intelligent integrated Infrastructure shall have following components: -		
3.1	Rack based closed loop Air-Conditioning		
3.1.1	The smart rack should be equipped with rack mounted cooling unit to provide closed loop cooling system which should be able to cool the equipment's uniformly right from 1st U to 42nd U of Rack		
3.1.2	Rack Mounted Air-Cooling unit should be of 7kW/2TR capacity, N+1 topology (02 no. of 7kW rack-based cooling unit).		
	Rack based Air Cooling with indoor - out door design, SHR >0.9, 100% Duty cycle, scroll compressor, 9U rack mountable, electronically commutated (EC) fan, High Pressure & Low-Pressure protection, Washable filter with 80% efficiency down to 20-micron, Hydrophilic evaporator coil, ON/OFF switch at indoor unit for emergency purpose, R407C/R410A Refrigerant. The condenser/outdoor unit should comprise of scroll compressor. The unit should support ambient temperature for 0°C to 45°C.		
3.1.3	The unit should support indoor to outdoor copper piping distance up to 30 mtrs including vertical piping distance up to 10 mtrs.		
3.2	Rack Power Distribution (02 no. per rack)		

3.2.1	0U, Vertical Rack PDU with Unit Level monitoring, 32A x 3 Phase, 400V, 22.00kW, Vertical, (18) IEC C13, (12) IEC C19, 3m power cord with 2P+E (IP44), Black Powder Coat.		
	The IPDU should have following features:		
	· Input power monitoring with breaker level current monitoring. Daisy chain Ethernet connectivity. Local high visibility LED display		
	· Phase (A) Monitoring (kWh, W, VA, PF, V, A)		
	· Protocols Supported: DHCP, HTTP, HTTPS, IPv4, IPv6, LDAP, NTP, RADIUS, RSTP, SSH, SMTP, SNMP (v1/v2c/v3), Syslog, TACACS+		
	· Maximum Operating Temperature :60°C		
	· Certification/Agency Approvals: CE, EN55032 & EN55024, IEC62368-1, RoHS		
3.3	Electrical Distribution System		
3.3.1	Rack mountable Power Output Device with essential breakers to be provisioned.All input supply cables from POD unit to equipment's are connected with industrial socket (male - female) with suitable rating		
3.4	Environmental Controls		
3.4.1	Intelligent Smart Rack (02 Nos.) should include basic environmental controls:		
	· Smoke Detector		
	· Water Leak Detection system		
	· Temperature/ Humidity Sensor		
	· Door Sensor		
	· Alarm beacon		
3.5	Rack & accessories		
3.5.1	Rack is 47 U 19'' mounting type with 2100 (Height) x 800 (Width) x 1200 (Depth) with safe load carrying capacity of 1400 Kg on enclosure frame and 1000 Kg on 19'' mounting angles		
3.5.2	Front Glass door for complete 47U height visibility and rear split door with stiffener for strength		
3.5.3	Cable entry provision from top & bottom both side of rack		
3.5.4	Cut outs with rubber/brush grommet on top and bottom cover of rack for cable entry		
3.5.5	Vertical Cable manager on both LHS & RHS on rear side		
3.5.6	Thermally insulated cold aisle chamber		
3.5.7	Blanking panels to prevent air mixing		
3.5.8	Status based LED light to be provided on each rack		

3.5.9	70% Blanking panels to be supplied with the Smart rack		
3.6	U Space		
3.6.1	Intelligent Smart rack should have Min 26U(total) space available for IT equipment's and network equipment after placing Rack cooling unit, LCD KVM console, Monitoring console, electrical DB etc.		
3.7	Monitoring		
3.7.1	The central management console of the datacenter Racks enables thorough monitoring and diagnostics through a 1U rack-mountable monitoring device. This device includes redundant power supplies and is compatible with IEC C14 and IEC C13 power cables. It is specifically designed for centralized monitoring of all environmental parameters, such as 7kW inbuilt PAC unit, accessible through a unified dashboard over Ethernet, and is capable of sending email alerts.		
3.7.2	DC OEM Monitoring unit should integrate & monitor environmental parameters like temperature, humidity, door access, smoke etc., Rack PAC's real time performance monitoring with alert, IP-PDU and UPS realtime statisitc and alert management in a single dashboard		
3.7.3	The monitoring unit should support basic protocols like Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS Server, smtp, TCP/IP4. It should support network interface of 10/100M self-adaptable Ethernet ports.		
3.8	Fire Safety & Security		
3.8.1	Rodent Repellent system		
	Rack to be covered with rodent repellent system		
3.8.2	Fire Detection & Suppression system		
	Rack to be covered with Fire alarm & detection system along with FK-5- 1-12 gas-based suppression system. The system should have fire suppression unit mounted internally / externally on the rack.		
3.8.3	Access Control System		
	The system deployed will be rack based access control system based on Biometric Technology. The front & rear rack doors will be provided with electromagnetic locks and will operate on fail-safe principle through Biometric access control system.		
4	**8 port IP KVM with console**		

a.	Proposed 18.5″ LCD console tray and 8 port IP KVM switch should be built in design and should occupy 1U space in 19″ standard rack.		
b.	It should have cable management arm(CMA) and the 8 port KVM switch built in at the rear side of the LCD console tray to save the U space in Rack.		
c.	KVM switch should not have push button since it is not operable from front side in rack.		
d.	Both LCD console tray and the built-in KVM switch should have separate power supply.		
e.	Vendor should supply 8 number of KVM cables with VGA, USB connectors and LEDs to indicate Power status.		
f.	Built-in KVM switch should have 8 RJ45 port to connect KVM cable/dongle with CAT cable extension at least upto 30Mt		
g.	Supplied KVM cables should support Virtual media to map USB media devices to target servers remotely over TCP/IP.		
h.	Built it KVM switch should have encryptions including 128-bit SSL, AES, DES and 3DES and they can be selected for keyboard, mouse and video signals and virtual media sessions.		
i.	Built-in KVM switch should be cascaded with another KVM switch with max 30Mt cat cable only.		
j.	LCD display should support brightness 250 cd /m2, contract ratio 1000:1 and 16.7million colours.		
k.	LCD console tray and built in KVM switch should support max resolution 1600 x 1200 at 60 Hz.		
l.	Operating temperature and Humidity of LCD console tray should be 0°C to 50°C and 10% to 80%		
m.	LCD console tray should have 103 key keypad with numpad and touchpad.		
n.	It should have control buttons on the front of the monitor to adjust the characteristics of the image that is displayed.		
o.	It should have two independent USB 2.0 compliant pass-through ports at front side.		
p.	LCD console tray should be global certified by agencies UL, CE, CCC, BSMI, C-Tick, EAC, VCCI, KCC, FCC Class A		

	Note: OEM has to submit product technical datasheet, product manual along with technical compliance and supporting document shall be available on public domain		
ITC	Installation, testing and commisioning and Project management by DC product OEM		
Warranty	5 Years onsite warranty shall be provided by DC OEM		

UPS in HA

S. No	Description of Requirements	Compliance (Yes / No)	Comments
1	**UPS System (02 no. x 20 kVA in N+N redundancy)**		
1.1	UPS should be true online double conversion 2U rack mountable 20 kVA in N+N redundancy, with unity pf and Online efficiency up to 95% & eco mode efficiency 99%.		
1.2	Other features of UPS system are as follows:		
a.	True On-line UPS with Widest input range (176V-288V AC)		
b.	Double conversion and IGBT technology: Full IGBT Rectifier /Battery Charger and IGBT based Inverter		
c.	Facility for remote monitoring		
d.	Battery backup of 30 min per UPS (at rated capacity via 12 V VRLA/SMF Batteries. Batteries to be mounted externally in separate battery racks.		
e.	UPS should be RoHS, Energy star certified with IP 20 protection level.		
f.	**Input Parameters:**		
	Nominal Input Voltage (V) = 380/400/415VAC 3Phase		
	Input Voltage Range (V) = 176-288VAC at full load; 100-176VAC at linear derating; 100VAC at half load		
	Nominal Input Frequency (Hz) = 50/60		
	Input Frequency Range (Hz) = 40-70		
	Input Power Factor (kW/kVA) = 0.99		

	Current THD at full linear load (THDi%) = <3		
g.	**Output Parameters:**		
	Nominal Output Voltage (V) = 220/230/240VAC (1-Phase), 380/400/415VAC (3-Phase)		
	Nominal Output Frequency (Hz) = 50/60		
	Rated Power Factor (kW/kVA) = Unity		
	Voltage Harmonic Distortion (%) = <2% for Linear Load, <5% for Non-Linear Load		
	Overload Capacity = At 25°C: 105% ~ 125%, 5min; 125% ~ 150%, 1min; 150%, 200ms		
	Crest Factor = 3:1		
h.	**General Parameters**:		
	Operating Temperature (°C) = 0 ~ 50C		
	Relative Humidity (%RH) = 5 ~ 95, non-condensing		
	Altitude (m) = 3000m		
i.	**Conformity & Standards**		
	General and safety requirements for UPS = IEC/EN 62040-1		
	EMC requirements for UPS = IEC/EN 62040-2		
	UPS classification according to IEC 62040-3 = VFI-SS-111		
ITC	Installation, testing and commisioning and Project management by UPS-DC product OEM		
Warranty	5 Years onsite warranty shall be provided by UPS-DC OEM, battery shall cover 2 years onsite replacement warranty.		

SECTION 7

Unpriced Bill of Quantities – for Make Model Definition

Bioinformatics Infrastructure

Sr. No.	Description	UOM	Qnty	Make	Model (All the part codes required to complete the set with quantities of each required should be mentioned)
1	Server Node without GPU	Set	2.00		

2	AI Server Node with GPU	Set	2.00		
3	Master Node Server	Set	1.00		
4	Storage with NAS Header in HA	Set	1.00		
5	Top of the Rack Switch in HA	Set	2.00		
6	Rack with KVM & Console	Set	1.00		
7	20 KVA UPS in HA	Set	1.00		
8	6th Year Warranty / Subscription for the supplied infrastructure including hardware and software		1.00		
9	7th Year Warranty / Subscription for the supplied infrastructure including hardware and software		1.00		
10	Onsite Manpower O & M	1 Year	1.00		

SECTION 8

Commercial Format
(To be submitted strictly online)

Infrastructure

Sr. No.	Description	UOM	Unit Price	Qnty	Total	Tax %age	Total with Taxes
1	Server Node without GPU	Set		2.00			
2	AI Server Node with GPU	Set		2.00			
3	Master Node Server	Set		1.00			
4	Storage with NAS Header in HA	Set		1.00			
5	Top of the Rack Switch HA	Set		2.00			
6	Rack with KVM & Console	Set		1.00			
7	20 KVA UPS in HA	Set		1.00			
8	6th Year Warranty / Subscription for the supplied infrastructure including hardware and software			1.00			
9	7th Year Warranty / Subscription for the supplied infrastructure including hardware and software			1.00			
10	Onsite Manpower O & M	Per Year		1.00			

(Do not submit price in physical bid submission)

Section – 9

Performance Bank Guarantee

(To be stamped in accordance with Stamp Act)

Ref: Bank Guarantee No.

Date: To,
The Registrar
Gujarat Biotechnology University
Near GIFT City Gandhinagar
Gujarat - India.

Dear Sir,

1. WHEREAS..... (Name of Bidder) hereinafter called "the Bidder" has undertaken, in pursuance of Agreement dated, (here in after referred to as "the Agreement SYSTEM INTEGRATION OF VARIOUS WORKS AT GBU Gandhinagar. And WHEREAS it has been stipulated in the said Agreement that the Bidder shall furnish a Bank Guarantee ("the Guarantee") from a scheduled bank for the sum specified therein as security for implementing PROJECT.

WHEREAS we_____("the Bank", which expression shall be deemed to include it successors and permitted assigns) have agreed to give Gujarat Biotech University (GBU) the Guarantee:

THEREFORE, the Bank hereby agrees and affirms as follows:

The Bank hereby irrevocably and unconditionally guarantees the payment of all sums due and payable by the Bidder to GBU under the terms of their Agreement dated _____. Provided, however, that the maximum liability of the Bank towards GBU under this Guarantee shall not, under any circumstances, exceed _____in aggregate.

3. In pursuance of this Guarantee, the Bank shall, immediately upon the receipt of a written notice from GBU in that behalf and without delay/demur or set off, pay to GBU any and all sums demanded by GBU under the said demand notice, subject to the maximum limits specified in Clause 1 above. A notice from GBU to the Bank shafll be sent by Registered Post (Acknowledgement Due) at the following address:

_____

_____

_____

Attention Mr._____.

4. This Guarantee shall come into effect immediately upon execution and shall remain in force for a period of months from the date of its execution. The Bank shall extend the Guarantee for a further period, which may mutually decide by the Bidder& GBU. The liability of the Bank under the terms of this Guarantee shall not, in any manner whatsoever, be modified, discharged, or otherwise affected by:

- Any change or amendment to the terms and conditions of the work-order or the execution of any further Agreements.

- Any breach or non-compliance by the Bidder with any of the terms and conditions of any Agreements/credit arrangement, present or future, between Bidder and the Bank.

5. The BANK also agrees that GBU at its option shall be entitled to enforce this Guarantee against the Bank as a Principal Debtor, in the first instance without proceeding against the BIDDER and not withstanding any security or other guarantee that GBU may have in relation to the Bidder's liabilities.

6. The BANK shall not be released of its obligations under these presents by reason of any act of omission or commission on the part of GBU or any other indulgence shown by GBU or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the BANK.

7. This Guarantee shall be governed by the laws of India and the courts of Gandhinagar shall have jurisdiction in the adjudication of any dispute, which may arise hereunder.

Dated this the …….. Day of ……..

Witness

(Signature) (Signature)

(Name) Bank Rubber
Stamp

(Name)

(Official Address)
Designation with Bank Stamp
In addition, Attorney as per Power of Attorney No. Dated:

Section – 10

Annexure – I : Earnest Money Deposit & Tender Fee Details

Sr	Item	Amount (In Rs.)	Name of the Bank & Branch	Demand Draft No.
2	Tender Fee			
1	Earnest Money Deposit (E.M.D.)			

Annexure II : TENDER LETTER FORM

Date:_____

From
(Registered name and address of the Bidder.)

Date:

To,
The Registrar
Gujarat Biotechnology University,
Near GIFT City, Gandhinagar

Sir,
Having examined the tendering documents, we the undersigned, offer to supply, install, test, integrate and commission of Multiple Systems as detailed in the bidding document (as enclosed) in response to T/E number …….dated .....

we undertake to:
maintain validity of the Tender for a period of 4(120 days) months from the last date of Tender submission as specified in the bidding document or extended. The same shall remain binding upon us and may be accepted at any time before the expiration of that period.

supply, install, test, integrate, commission and maintain the "Systems" for a period of 36 months (warranty period) in conformity with the bidding documents (and as amended from time to time).

Assistance in Operation and Comprehensive Maintenance of system for a period of 3 years (after commissioning of the system).
Commission the "Systems" within the time frame as defined in the Tender documents (and as amended from time to time)

execute work-order in totality and provide all securities & guarantees as required in the Tender document (and as amended from time to time).
until a formal work-order is prepared and executed, this Tender, together with your written acceptance thereof and your notification of award, shall constitute a binding work-order on us.

certify that products and Systems to be supplied shall be from eligible countries as specified in the above mentioned T/E document.

Dated this_____day of_____. Signature
(in the capacity of)

Duly authorized to sign Tender for and on behalf of

Witness:
(Signatures with name and designation), Address, etc:

Annexure III : Manufacture's Authorization Form

Date:

To,
The Registrar
Gujarat Biotechnology University ,
Near GIFT City, Gandhinagar.

RFP Ref: Tender Enquiry No. GBU/IT/XX/2024 Dated XX.XX.2024 and due on XX.XX.2024

Sub: Authorization Letter for Bidding for the above tender

Dear Sir,

We_____who are established and reputable manufacturers of _____ and head office /manufacturing hereby authorize to submit a bid and sign the work-order with you for the goods manufactured by us against the above IFB. We hereby extend our full guarantee and warranty for the goods supplied by us, confirm that the products quoted are not end of life products, and we confirm that we would provide post warranty support including spares, patches for the quoted products available for next 7 years. (5 Year warranty + 2 year extended)

Yours faithfully, Authorized Signatory

Annexure IV : Work Experience

Experience in supply, installation commissioning and maintenance for Servers, Storage, Network Switches, Smart Rack, and UPS components Setup					
Sr.No	**Name of the Organization**	**Address of Installation**	**Tentative Bill of Material**	**Value of The Project in Rs.**	**Supporting PO and Completion Certificate attached**
1					
2					
3					

Experience in supply, installation commissioning and maintenance for Cooling Rack					
Sr.No	**Name of the Organization**	**Address of Installation**	**Tentative Bill of Material**	**Value of The Project in Rs.**	**Supporting PO and Completion Certificate attached**
1					
2					
3					

Annexure V : Financial Strength of the Bidder

Financial Year	Turn Over in Lakhs of Rupees	System Integration Turnover in LACS	Audited Accounts submitted. (Yes/No) and Supporting Auditor Certificate for SI Turnover submitted (YES/NO)
2023-2024			
2022-2023			
2021-2022			

Note: Please fill this form and attach the audited Annual Accounts for the last three financial years along with the Auditor Certificate confirming the System Integration Turnover

Annexure VI : Land Border Undertaking

Annexure A - Undertaking by Bidder as per Ministry of Finance
On letterhead of Bidder

Sub: Undertaking as per Office Memorandum No.: F. No.6/18/2019-PPD dated 23.07.2020 published by Ministry of Finance, Dept. of Expenditure, Public Procurement division

Ref: Bid Number: _____

I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India. I certify that we as a bidder and quoted product from following OEMs are not from such a country or, if from such a country, these quoted products OEM has been registered with competent authority. I hereby certify that these quoted product & its OEM fulfills all requirements in this regard and is eligible to be considered for procurement for Bid number_____.

No.	Item Category	Quoted Make & Model

In case I'm supplying material from a country which shares a land border with India, I will provide evidence for valid registration by the competent authority, otherwise Gujarat Biotechnology University reserves the right to take legal action on us.

(Signature)
Authorized Signatory of **M/s <<Name of Company>>**

Annexure VI : Land Border Undertaking

Annexure B - Undertaking by OEM as per Ministry of Finance

On letterhead of OEM

Sub: Undertaking as per Office Memorandum No.: F. No.6/18/2019-PPD dated 23.07.2020 published by Ministry of Finance, Dept. of Expenditure, Public Procurement division

Ref: Bid Number: _____

I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India. I certify that we as a bidder and quoted product from following OEMs are not from such a country or, if from such a country, these quoted products OEM has been registered with competent authority. I hereby certify that these quoted product & its OEM fulfills all requirements in this regard and is eligible to be considered for procurement for Bid number_____.

No.	Item Category	Quoted Make & Model

In case I'm supplying material from a country which shares a land border with India, I will provide evidence for valid registration by the competent authority, otherwise Gujarat Biotechnology University reserves the right to take legal action on us.

(Signature)
Authorized Signatory of **M/s <<Name of Company>>**