

International Centre for Theoretical Sciences

**Tender document for “Requirements of High Performance
Computing (HPC) nodes on the Cloud”**

Ref. No. ICTS/TIFR/2023-24/IT-01

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PART A : NOTICE INVITING TENDER

BID DOCUMENT
[Two bid system]

19 Feb 2024

On behalf of the Centre Director, ICTS - TIFR, Bengaluru, India, bids are invited under two bid system from reputed manufacturers or their authorized agents for the supply / installation/ commissioning of the following item(s): -

SI No	Item Description	Enquiry Ref. No.	Estimated cost of Tender	Contract Period	EMD
01	Requirements of High Performance Computing (HPC) nodes in Cloud (As per specification attached)	ICTS/TIFR/2023-24/IT-01	Rs. 60 lakhs	36 months (Thirty six months)	Rs. 1,20,000/-

Pre-Bid Meeting : 26.02.2024 11.00 hours
Last date & Time for submission of bids : 12.03.2024 15.00 hours
Date/Time for opening of Technical bid : 12.03.2024 15.30 hours

Centre Director, ICTS - TIFR reserves the right to accept/ reject any or all tenders either in part or in full without assigning any reasons there for.

Administrative Officer
ICTS - TIFR

Note: All the bidders are requested to please note that all future amendments/corrigendum will be published on ICTS website and no separate advertisement will be released for the same. Bidders are therefore requested to regularly visit our website for any such updates.

PART B : INSTRUCTION TO BIDDERS

- 1.0 All costs associated in preparation and submission of the bid will have to be borne by the bidder. ICTS will in no case be responsible for such costs, regardless of the conduct or outcome of the bidding process.
- 2.0 ICTS reserves its rights to amend any of the terms and conditions of this tender document. Such amendments shall be published on ICTS and CPPP websites only and will not be published in newspapers. The bidders are advised to regularly visit these websites for any such updates.
- 3.0 The complete bid shall be without alteration or erasures, except those to accord with instructions issued by ICTS or as necessary to correct errors made by the bidder, in which case such corrections shall be initiated by the person or persons signing the bid.
- 4.0 The bidder shall submit only one option, which is best suitable to meet ICTS requirements. The bids submitted with more options shall be liable to be rejected.
- 5.0 The bid prepared by the bidder, as well as all correspondence and documents relating to the bid exchanged by the bidder and ICTS, shall be in English only.
- 6.0 Wherever a specific form is prescribed in the bid document, the bidder shall use the form to provide relevant information. If the form does not provide space for any required information, space at the end of the form or additional sheets shall be used to convey the requested information. For all other cases, the bidder shall design a form to hold the required information.
- 7.0 The bidder shall explicitly indicate the non-compliance or deviation of the solution offered in the proposal to all the terms, clauses, conditions and specifications stipulated in this tender document. If non-compliance or deviation for any term, clause, condition or specification is not explicitly indicated, it will be construed as compliance and if successful in the bid, the bidder is obligated to comply with all the requirements (excluding those non compliances explicitly accepted by ICTS in writing) in toto. Incomplete tenders are liable to be rejected.
- 8.0 The successful bidder shall perform all the obligations specified in the terms and conditions laid down in the RFP. Information provided by the bidder should be specific to the requirements specified in the tender document. Detailed clarification may be provided by the bidder, if so desired by ICTS. The bidder shall specify the responsibilities of ICTS, if any, separately for the successful implementation of the project.
- 9.0 The bidder should sign and stamp each page of the tender documents.
- 10.0 The bidder may furnish any additional information, which they think is necessary to establish his capabilities to successfully complete the envisaged work. They are, however, advised not to furnish superfluous information. No information shall be entertained after submission of tender documents unless it is called for by the ICTS.
- 11.0 Any information furnished by the bidder found to be incorrect either immediately or at a later date, would render him liable to be debarred from tendering/taking up of work in ICTS.
- 12.0 Any variation in the terms and conditions of the general/special conditions for payment, tender fees, security deposit, etc is not acceptable to ICTS and such tenders will be rejected straight away.

- 13.0 Acceptance of tender shall rest with the ICTS which shall not be bound to accept the lowest tender and reserves to itself the right to reject any or all tenders received without assigning any reasons therefore.
- 14.0 To address the purchaser requirements and to get the complete financial backing and skill set, consortium bidding is allowed. However, bidders have to comply with CVC / GOI guidelines related to consortium bidding. Under consortium bidding, the partners should very clearly explain their roles, in the technical bid, with respect to this project, with required documents to support the same. Under consortium bidding, each partner has to submit their bid and the service they are responsible to deliver. Under consortium bidding, individual consortium partners must fulfill the eligibility criteria mentioned above as per their weightage in the consortium. The bid qualifies only if all partners in the consortium meet the eligibility criteria.

PART C : PRE-QUALIFICATION CRITERIA

Cloud Provider Eligibility Criteria

(Supporting documents wherever required should be attached)

- 1) The cloud provider must be empanelled by MeitY and audited by STQC or equivalent as on bid submission date for IaaS and PaaS.
- 2) The cloud provider should possess following certifications on bid submission date: ISO/IEC 27701 and ISO/IEC 27001 (Information Security Management), ISO/IEC 27018 (Code of Practice for Protection of Personal Data), ISO 22301 (Security and Resilience), ISO 9001 (Quality Management System), and SOC 1, 2, and 3 (Service Organization Controls Standards for Operational Security) security compliance certification or equivalent.
- 3) The cloud provider should be listed in one of the four Gartner Magic Quadrants for IaaS for 2023.
- 4) The cloud provider should be registered under Companies Act 1956, or as an LLP Firm or Partnership under Partnership Act 1932.
- 5) The cloud provider must have a positive net worth in the last three financial years (2020-21, 2021-22, 2022-23) with at least 5 years of operations in India by the bid submission date.
- 6) At the time of the bid, the cloud provider should be servicing at least three high-performance computing customers of magnitude equivalent to estimated cost of this order (₹60 lakh).
- 7) The cloud provider should have experience in India of executing at least two government projects with central government organisations or public sector units in the last three years.
- 8) The cloud provider should have at least ten times the estimated cost of this order (₹60 lakh) as overall annual revenue from their cloud business.
- 9) The cloud provider should not have been blacklisted or debarred by the central government, any state government, or any government organisation in five years preceding the bid submission date.

Bidder Eligibility Criteria

(Supporting documents wherever required should be attached)

- 1) Bidder must be able to deploy applications and virtual machines on the cloud at the highest standards of security, with continuous monitoring.
- 2) Bidder must have cloud-provider-certified manpower for creating Linux-based high-performance computing environments. Their team should be skilled to provide the support described in the Technical Specifications section of this RFP. The bidder's proposal should include a self-certification with details of cloud-provider-certified manpower.
- 3) Bidder should be an authorized partner of the cloud provider, or a consortium of such partners.
- 4) Bidder should be in the cloud business for at least three years.

- 5) In the past 5 years, the bidder should have executed (a) three similar orders of value not less than 40% of this order's estimated value, or (b) two similar orders of value not less than 60% of this order's estimated value, or (c) one similar order of value not less than 80% of this order's estimated value. Similar here means cloud-based or on premise computing to a government department, university, research institute, or a reputed private firm. This order's estimated value is ₹60 lakh. At least one of these orders should be with a government organisation in India. The bidder's proposal should include completion certificates with the signing authority's contact details.
- 6) Bidder should not have been blacklisted or debarred by the central government, any state government, or any government organisation in 5 years preceding the bid submission date.
- 7) Bidder should have experience in executing high-performance computing offerings, either on the cloud or on premises.
- 8) Bidder should submit an authorisation certificate from the cloud provider, on the cloud provider's letterhead, quoting this RFP's reference number.

PART D: GENERAL CONDITIONS OF CONTRACT (GCC)

Eligibility Criteria

1.1 ICTS has set up minimum eligibility criteria for the bidding purpose. All bidding parties must meet these criteria before bidding. The bidding parties meeting the criteria must enclose photocopies of supporting documents along with the proposal as mentioned in the tender, failing which their bids will be summarily rejected and will not be considered any further.

1.2 Contract Period: The Contract will be for the period of 36 months from award of contract/signing of agreement on same terms, condition and rates.

1.3 Period of Validity of Offer: For the purpose of placing the order, the proposals shall remain valid till 120 days from the date of opening of tender. During the period of validity of proposals, the rates quoted shall not change. In exceptional circumstances, ICTS may ask for extension of the period of validity and such a request shall be binding on the bidders. ICTS's request and the response to such a request by various bidders shall be in writing. A bidder agreeing to such an extension will not be permitted to increase its rates.

1.4 Submission of Bid: The bids have been invited under a two-bid system: they will include a technical bid and a financial bid. The interested bidders are advised to submit two separate sealed envelopes clearly marked as "Technical Bids" and "Financial Bids". Both sealed envelopes should be kept in a third envelope of bigger size duly sealed and marked "Bid for High Performance Computing (HPC) Nodes on the Cloud." This envelope should be deposited in the box kept for this purpose at the ICTS entrance security on or before 12th March 2024, at 3.00 PM.

Bid may be submitted in the following manner:

- 1.4.1 Envelope No. 1: Shall contain all the information and documents in the same serial order as shown in the technical bid (Pre-qualification criteria (Envelope No -1). The complete document should be numbered chronologically. The envelope must be superscribed as "Technical Bid". Shall also contain the bid EMD/Tender Fee.
- 1.4.2 Envelope No.2: Shall contain the rates/prices of the Services / items duly filled in as per Price Bid Format and signed and stamped. The envelope must be superscribed as "Price Bid".
- 1.4.3 All the envelopes must be superscribed "Bid for High Performance Computing (HPC) Nodes on the Cloud." with due date and time and shall be sealed in a third envelope of bigger size addressed to Administrative Officer, ICTS - TIFR, Survey No. 151, Shivakote, Hesaraghatta, Bangalore 560089. The Tender must reach on or before 3:30 pm on 12.03.2024. OR deposited/ dropped in the tender Box placed in the security cabin.
- 1.4.4 All the envelopes shall indicate the name and address of the bidder to enable the bid to be returned, if required.
- 1.4.5 Late/ or delayed tenders shall not be considered. Therefore, please ensure that the tender is submitted/ posted well in time to reach us before the due date.
- 1.4.6 Any Incomplete and conditional bids received shall not be considered and will be summarily rejected in the very first instance without any recourse to the bidder and shall not be evaluated.
- 1.4.7 The bid shall be written in English only.

- 1.4.8 No other method/means of submission of bid except as stated above shall be acceptable. All entries in the bid form should be legible and filled clearly. Otherwise the bid is likely to be rejected. If the space for furnishing information is insufficient, a separate sheet duly signed by the authorized signatory may be attached. No overwriting or cutting is permitted in the Financial Bid form. The cuttings, if any, in the Bid/ Bid application must be initialed by the person authorized to sign the bid.
- 1.4.9 Duly filled Tender for qualification shall be submitted in proper format and incomplete offers shall be liable for rejection. Copy of each required document should be submitted with technical bid for assessment.
- 1.4.10 If ICTS desires any clarification or verification for any ambiguity or difference found in the documents or statistical data submitted by the bidder the same shall be furnished within stipulated time otherwise further processing will be carried out in absence of above and the bidders shall be liable for any consequence.

1.5 Earnest Money Deposit (EMD): The interested Companies/firms may put the tender document complete in all respects along with Earnest Money Deposit (EMD) of **Rs 1,20,000/- (Rupees One lakh Twenty Thousand only)** in the form of Demand draft / Banker's Cheque / Fixed Deposit of any scheduled bank drawn in favour of "International Centre for Theoretical Sciences" payable at Bangalore and other requisite documents in the Tender Box kept near Reception of ICTS, Bangalore.

The bid securities of the unsuccessful bidders shall be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract. No interest shall be payable by the Centre on EMD.

The bid security is normally to remain valid for a period of forty-five days beyond the final bid validity period.

In exceptional circumstances, ICTS may solicit Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The Bid security shall also be suitably extended. A Bidder granting the request is not required nor permitted to modify the Bid.

1.6 Forfeiture of EMD: EMD made by Bidder may be forfeited under the following conditions: If Bidder withdraws the proposal before the expiry of validity period. During the evaluation process, if a Bidder indulges in any such activity as would jeopardize the process, the decision of ICTS regarding forfeiture of EMD shall be final and shall not be called upon question under any circumstances. If Bidder violates any of the provisions of the terms and conditions of the proposal. In the case of a successful Bidder, if Bidder fails to:

- 1.6.1 Accept the work order along with the terms and conditions.
- 1.6.2 Furnish performance security.
- 1.6.3 Violates any of the work conditions of this proposal or indulges in any such activities as would jeopardize the work.
- 1.6.4 Submitting false/misleading information/declaration/documents/proof/etc. The decision of ICTS regarding forfeiture of EMD shall be final and shall not be called upon to question under any circumstances, besides, forfeiture of EMD even the Bidder will be deferred from participating in any job.
- 1.6.5 In the event of the successful bidder/contractor failing to comply with any provision of the contract.
- 1.6.6 The Bidder shall not be allowed to withdraw or modify the offer on his own after the last date of submission of bid. If any Bidder withdraws or makes any modifications or additions in the terms and conditions of his tender not acceptable to the ICTS then the ICTS shall without prejudice to any right/ remedy, will have liberty to forfeit the said Earnest Money in full or part.

1.7 Performance Security Deposit: The successful bidder shall have to deposit a Performance Security Deposit of the 3% of the total amount of work order within three (3) weeks of the receipt of the LOI/Order. The performance security deposit will be furnished in the form of Demand draft/ Bank Guarantee/Banker's Cheque/Fixed Deposit of any scheduled bank drawn in favour of "ICTS" Payable at Bangalore. The performance security deposit should be valid for sixty days beyond the date of completion of all contractual obligations/warranty period. Bid security shall be refunded to the successful bidder on receipt of performance security is to be renewed, if the contract is extended.

1.8 Pre-bid Meeting: The pre-bid meeting will be on zoom on 26.02.2024, interested parties should email us by 5 pm on 24th February for the zoom meeting details.

Bidders can send their queries by email to jimthomas@icts.res.in and / or purchase@icts.res.in. Only the queries received prior to the pre-bid meeting will be answered.

1.9 Delivery: Includes setting up, on boarding, continuous support and training as outlined in part E of this RFP. The successful bidder has to start the service meeting the technical requirement. Test jobs will be run and checked for performance. The complete handover of the system to the ICTS scientist as per the specifications in part E of this RFP completes delivery.

1.10 Terms of Payment:

1.10.1 Payment: The Supplier is required to offer the solution under PRE-PAID Model, i.e. upfront payment upon activation of account and crediting of computing nodes into the account of the user.

1.10.2 In the PRE-PAID Model, the total payment will be made within a fortnight upon activation of account and crediting of computing hours time to the account of the users.

1.10.3 Invoice (i.e. Tax invoice as per GST rules clearly indicating GST registration number, Service Classification, rate and amount of Tax shown separately).

1.10.4 The agency will submit a bill in the name of ICTS, Bangalore.

1.10.5 No claim for interest will be entertained by the ICTS in respect of any payment/deport which will be held with the ICTS due to dispute between the ICTS & Contractor or due to Administrative delay for reasons beyond the control of the ICTS.

1.10.6 All Taxes per applicable rules time to time will be deducted at applicable rates from all payments made by ICTS. Bangalore

1.10.7 The payment is mandatory through NEFT/RTGS only.

1.11 Amendment of Bid Document: At any time prior to the deadline for submission of proposals, ICTS reserves the right to add/modify/delete any portion of this document by issuance of an Corrigendum, which would be published on the website and will also be made available to the all the Bidder who have been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

1.12 Enforcement of Terms: The failure of either party to enforce at any time any of the provision of this contract or any rights in respect thereto or to exercise any option here in provided shall in no way be construed to be a waiver to such provisions, rights or options or in any way to affect the validity of the contract. The exercise by either party of any of its rights herein shall not preclude or prejudice either party from exercising the same or any other right it may have hereunder.

1.13 ICTS Right to reject any of all bids: The competent Authority of ICTS reserves the right to reject any bid and to annul the bidding process and reject all bids at any time prior to award of Contract without thereby incurring any liability to the affected bidder(s) or any obligation to inform the affected bidder(s) of the grounds for such decision. Any effort by a bidder or bidder's agent / consultant or representative, whosoever described to influence the ICTS/ in any way concerning scrutiny / consideration / evaluation / comparison of the bid or decision concerning award of contract shall entail rejection of the bid.

1.13.1 The Director, ICTS reserves the right to terminate the contract without assigning any reason by giving a notice of 15 days to the Tenderer at any point of time during the period of the contract.

1.13.2 The competent Authority of the ICTS reserves the right to annul bids or discontinue this tender process, without assigning any reason, at any time prior to signing of agreement with the successful bidder.

1.13.3 ICTS reserves the right to vary/alter/amend the eligibility criteria for the cloud provider or the bidder at any time, at its discretion, before the proposal submission deadline.

1.13.4 By acceptance of this document, the recipient agrees that any information herewith will be superseded by any subsequent written information on the same subject made available to the recipient with access to any additional information or to update this document or to correct any inaccuracies, therein, which may become apparent, and ICTS reserves the right at any time and without advance notice, to change the procedure for the selection of service provider.

1.13.5 The Centre reserves the right to terminate the contract at any time after giving a one month's notice to the selected Manpower Service Provider with or without assigning any reason and shall be under no obligation whatsoever to continue the contract.

1.14 Resolution of Disputes:

1.14.1 If any dispute arises between the Parties hereto during the subsistence or thereafter, in connection with the validity, interpretation, implementation or alleged material breach of any provision of the Agreement or regarding a question, including the questions as to whether the termination of the Contract Agreement by one Party hereto has been legitimate, both Parties hereto shall endeavor to settle such dispute amicably. The attempt to bring about an amicable settlement is considered to have failed as soon as one of the Parties hereto, after reasonable attempts [which attempt shall continue for not less than 30 (thirty) days], give 15 days notice thereof to the other Party in writing.

1.14.2 In the case of such failure the dispute shall be referred to a sole arbitrator or in case of disagreement as to the appointment of the sole arbitrator to three arbitrators, two of whom will be appointed by each Party and the third appointed by the two arbitrators.

1.14.3 The place of the arbitration shall be ICTS, Bangalore. The Arbitration proceeding shall be governed by the Arbitration and Conciliation Act of 1996 as amended.

1.14.4 The proceedings of arbitration shall be in English language. The arbitrator's award shall be substantiated in writing. The arbitration tribunal shall also decide on the costs of the arbitration procedure.

1.14.5 The Parties hereto shall submit to the arbitrator's award and the award shall be enforceable in any competent court of law.

1.15 Price Bid: The price bids shall be opened on the scheduled time and date at ICTS, Bangalore in the presence of the representatives of the bidders, if any, who wish to be present on the spot at that time. The price bid of only those bidders will be opened whose bids have been found eligible as per the criteria mentioned in the technical bid. All eligibility conditions have to be satisfied on the respective dates in such condition and not on a later date.

1.15 Relaxation of Terms and Conditions: The Director, ICTS is empowered to relax any term or condition mentioned herein.

1.16 Agreement: The contractor will have to enter into a written Agreement with ICTS within 15 days of intimation of acceptance of approved rates.

1.17 Bid Evaluation Criteria & Award Criteria:

1.17.1 After the opening of the technical bid, the same will be evaluated by a committee. In case the committee decides to seek further information/clarification, the same shall be provided by the bidder. Those bids which technically qualified as per pre-qualification criteria, and completed in all aspects with all annexures and meeting the requirements, the financial bid of such qualified bidders will be opened on a specified date and time by the committee. The date and time of opening of financial bids will be intimated to the bidders well in advance through phone/email. The bidder is at liberty to be present either in-person or authorize, not more than one representative to be present at the time of opening of the financial bid. The Bids will be opened by the committee in the presence of the representative of the bidders who may wish to be present on that day.

1.17.2 Any conditional bids received shall not be considered and will be summarily rejected in very first instance without any recourse to the bidder and shall not be evaluated.

1.17.3 The contract will be awarded for technically suitable lowest evaluated bidder whose bid has been found to be responsive and who is found eligible and qualified as per the tender document. In case two or more agencies are found to have quoted the same rates. The Competent authority of ICTS shall decide about the bidder to which the offer shall be granted based on the report of the past performance of the firm, and length of experience etc. the decision of the Competent Authority of ICTS shall be final.

1.18 Disclaimer: The near relatives of employees of the ICTS are prohibited from participation in this tender. The near relatives for this purpose are defined as:

1.18.1 Member of ICTS, Bangalore

1.18.2 Spouse of a member of ICTS

1.18.3 Any one related to the other in the manner as father, mother, son(s), son's wife (daughter-in-law), daughter(s) & daughter's husband (son-in-law), brother(s) & brother's wife, sister(s) and sister's husband (brother-in-law).

Authorized Signatory (Signature In full): _____

Name and title of Signatory: _____

Stamp of the Company: _____

Conditions of Contract

2.1 Conditions of Contract

2.1.1 The successful tenderer shall not engage any sub-contractor or transfer the contract to any other person/firm/agency in any manner. The tenderer shall not be permitted to transfer their rights and obligations under the contract to any other person/organization or otherwise.

2.1.2 Each paper of the bid should be serially numbered and duly signed by the bidder with the seal of the firm on every page.

2.1.3 The Contracting Agency shall provide the products as mentioned in the scope of work.

2.1.4 In case the office is closed on the bid opening date due to some reason, the last date and time will automatically be shifted to the next working day.

2.1.5 This document does not constitute nor should it be interpreted as an offer or invitation for the appointment of a cloud provider described herein.

2.1.6 Accordingly, interested recipients should carry out an independent assessment and analysis of the requirements and of the information, facts and observation contained herein.

2.1.7 This document has not been filed, registered or approved in any jurisdiction. Recipients of this document should inform themselves of and observe any applicable legal requirement.

2.1.8 The proposal and all correspondence and documents shall be written in English. All proposals and accompanying documents received within the stipulated times shall become the property of ICTS and will not be returned.

2.1.9 The document is meant to provide information only and upon the express understanding that recipients will use it only for the purposes set out above. It does not purport to be all-inclusive or contain all the information about the cloud provider or bidder or be the sole basis of any contract. No representation of warranty, expressed or implied, is or will be made as to the reliability, accuracy or the completeness of any of the information contained herein, it shall not be assumed that there shall be no deviation or change in any of the herein mentioned information on the cloud provider or the bidder. While this document has been prepared in good faith, neither ICTS, nor any of their officers or subscribers make any representation or shall have any responsibility or liability whatsoever in respect of any statements or omissions here from any liability is accordingly and expressly disclaimed by ICTS and any of the officers or subscribers even if any loss or damage is caused by any act or omission on the part of ICTS or any of their officers or subscribers, whether negligent or otherwise.

2.1.10 By acceptance of this document, the recipient agrees that any information herewith will be superseded by any subsequent written information on the same subject made available to the recipient by or on behalf of ICTS. ICTS and any of their respective officers or subscribers undertake no obligation, among others, to provide the recipient with access to any additional information or to update this document or to correct any inaccuracies therein which may become apparent, and they reserve the right, at any time and without advance notice, to change the procedure for the selection of or any part of the interest or terminate negotiation or the due diligence process prior to the signing of any binding agreement.

2.1.11 This document constitutes no form of commitment on the part of ICTS. Furthermore, this document confers neither the right nor an expectation on any party to participate in the proposed cloud provider or bidder selection process.

2.1.12 When any proposal is submitted pursuant to this RFP, it shall be presumed by ICTS that the bidder has fully ascertained and ensured about its eligibility to provide require cloud-based products, in the event of the same being selected ultimately to act as such, under the respective governing laws and regulatory regime and that there is no statutory or regulatory prohibition or impediment to providing required cloud-based products and it has the necessary approvals and permissions and further suffers no disability on low or otherwise to act as such.

2.1.13 The cloud providers shall comply with and abide by such directions that ICTS may issue from time to time.

2.1.14 The bidder will be bound by the details furnished by him/ her to ICTS while submitting the tender or at a subsequent stage. In case, any of such documents furnished if found to be false at any stage, it would be deemed to be a breach of terms of contract making him / her liable for legal action besides termination of contract.

2.1.15 The contractors/ agency's personnel shall follow and adhere to all procedures and processes as laid down by ICTS.

2.1.16 The contractors/ agency shall adhere and pay all contributions, subscriptions, premium, fee and dues as per the law and as stipulated by ICTS and this includes Contract Labour (Regulation and abolition)

2.1.17 The service provider shall also be liable for depositing all taxes, levies, cess etc. on account of service rendered by it to ICTS to the concerned tax collection authorities from time to time as per extant rules and regulations in the matter failing which its payments are liable to be withheld and contract terminated, as may be deemed appropriate.

2.1.18 In case, the service provider fails to comply with any statutory/ taxation liability under appropriate law, and as a result thereof the Centre is put to any loss/ obligation, monetary or otherwise, ICTS will be entitled to get itself reimbursed out of the outstanding bills or the performance Security Deposit of the service provider to the extent of the loss or obligation in monetary terms or shall be entitled to recover the same by legal recourse.

2.1.19 ICTS reserves the right to withdraw / relax any of the terms and conditions mentioned above so as to overcome the problem encountered at a later stage for the smooth and timely provision of services.

2.1.20 Any delay or forbearance on the part of ICTS or any waiver of its rights or condonation of any acts, on the part of ICTS shall not be construed as a waiver of the obligations of the agency and it shall continue to be liable for all such acts or defaults.

2.1.21 ICTS may seek such clarification/ information/ document as may be required for it to satisfy the eligibility of the bidders. Failure on the part of the bidder to submit such information within the stipulated time, may entail cancellation of the bid of such bidder.

3. Penalty for downtime: There will be a penalty for downtime:

- a) The penalty clause is to ensure that the cloud provider and the bidder put their best efforts to honour their service-level agreement with ICTS.
- b) Unavailability of the system for more than ten minutes will be treated as downtime. This will not include failure to connect due to problems at the ICTS user's end.

- c) Downtime of computing and storage systems, software, or access to these systems, will be penalised at ₹1,000 for every ten minutes.
- d) Penalty will have a maximum limit of 5% of the contract value.
- e) ICTS reserves the right to terminate the contract if the maximum value of the penalty is reached. ICTS also reserves the right to take legal action for deficient service and seek compensation.

4. **Contract termination:** ICTS will have the right to terminate the contract at any point of time by giving a three-month notice. In case of contract termination, ICTS users will be allowed to download their data from the cloud. The cost of unused resources will be transferred back to ICTS.

Note: These terms and conditions are part of the Contract/Agreement as indicated in the Agreement between ICTS and the outsourced Agency and any non-compliance shall be deemed as breach of the Contract/Agreement.

Authorized Signatory (Signature In full): _____
Name and title of Signatory: _____
Stamp of the Company: _____

PART E : SCOPE OF WORK

High Performance Computing (HPC) Nodes on the Cloud for a period of Thirty Six (36) months. The scope of work includes setting up, on boarding, continuous support and training. See the technical specification section below for more details.

Technical Specifications

The bidder and the cloud provider should offer a platform that meets the basic computing infrastructure described below:

1. Compute nodes should be supported with AMD 7003, Milan-X architecture supporting 96 MB of L3 cache per core.
2. Compute nodes should feature 200 Gb/sec HDR InfiniBand from NVIDIA Networking to enable supercomputer-scale MPI workloads. These VMs are connected in a non-blocking fat tree for optimized and consistent RDMA performance.
3. The cores proposed should be physical cores across the compute nodes without hyperthreading enabled.
4. The CSP should have and provide an orchestration tool that can manage resources on premise as well as cloud.
5. HPC compute along with the tightly coupled parallel file storage system should also be available from the proposed Cloud service provider in India region giving the flexibility to ICTS-TIFR to be able to move within India if needed (meeting all the above conditions).
6. The bidder must perform a scaling test with the code provided and obtain a *best time* of 3 seconds or less. This scaling result should be submitted along with the quote for technical evaluation.

Scaling test details

The codes and sample results for the scaling test are contained here:

https://github.com/sanjaycp93/HPC_Scaling_Test_Code_360. The bidder must perform a scaling test with a sample open source code given here:

https://github.com/sanjaycp93/HPC_Scaling_Test_Code_360/blob/main/code_360.py. The bidder should submit a scaling table and scaling curve similar to the ones given in Table 1 and Figure 1 of the documentation.

The above example code can be updated/modified according to the bidder's HPC system of execution, provided all the operations are completed, along with the generation of the results and output files as mentioned in the documentation. The technical evaluation team would evaluate the modifications of the code and may also request access to run the test on the configuration the bidder tested the code on. The same result quoted has to be obtained on the bidder's configuration at the time of execution.

The bidder must obtain the lowest time taken in seconds for running the code and this will be considered as the *best time* with the configuration the bidder used. To obtain the *best time* the bidder may use 90, 120, 180, or 360 cores, in addition to any specialized storage system or parallel file system (PFS). The technical bid should contain a comprehensive list of all the components, their specifications and quantities, used to achieve the *best time* reported above.

In addition to providing a computing platform with above requirement, the bidder must meet the following conditions.

1. Only on-demand instances should be quoted. Spot or preemptible instances should not be used.
2. Computational nodes should be available 24-7.
3. Users should be able to install and use custom, licensed, or open-source software, libraries, and applications to meet their scientific requirements.
4. It should be possible to scale computational nodes vertically and horizontally. Vertical scaling implies the ability to move to more and less capable nodes. Horizontal scaling implies the ability to increase or decrease the number of nodes.
5. It should be possible to scale up to at least 1024 CPU cores without advance notification.
6. The cloud provider should provide an interface with dashboards, alerts, and cost optimization tools.
7. The cloud provider should ensure security of the computing nodes. In particular: throughout the contract period, the cloud provider should maintain ISO/IEC 27701 and ISO/IEC 27001 (Information Security Management), ISO/IEC 27018 (Code of Practice for Protection of Personal Data), ISO 22301 (Security and Resilience), ISO 9001 (Quality Management System), and SOC 1, 2, and 3 (Service Organization Controls Standards for Operational Security) security compliance certification or equivalent.
8. The nodes should have a secure connection with the Internet through policy-based filtering and anti-malware protection through firewall.
9. The data centre housing the compute nodes should have assured protection with 24-7 security built at multiple levels.
10. There should be no cap on the data that can be uploaded or downloaded to the nodes by the users.
11. The bidder and/or the cloud provider will provide system administration and other support. Specifically, support should be provided for Linux system administration, installation and maintenance of software, job schedulers, queue set-up, and deployment, scaling, and monitoring of nodes, not only at the start but also throughout the contract period.
12. 24-7 support should be provided for node accessibility issues.
13. Support requests from ICTS users should get a response within 24 hours. A time line for problem resolution should be given in advance and strictly honoured. Delay in support beyond these limits will be penalised at ₹1,000 for every hour.
14. It should be possible for the bidder to escalate support requests to the cloud provider if the bidder is unable to resolve the support request themselves. An escalation matrix for support requests involving the bidder and the cloud provider should be provided with the bid.
15. The data and applications owned by the users shall belong to them throughout the period. The cloud provider should ensure that the security of this data is not compromised, e.g., after the deactivation of a node or at the end of the contract period.
16. The contract period will be 36 months. Usage reports should be available whenever desired during this period. The usage reports should have a usage break-up according to the user and the resource used.
17. Both the bidder as well as the cloud provider should be available to hold regular training sessions by certified trainers for ICTS users at least once every year. Such sessions should include best practices for using the cloud, principles of high-performance computing, and related topics.
18. The bidder's proposal should have a clear description of the built-in redundancy and back-up systems to handle system breakdowns and other failures.
19. Loss of credits due to computing node failure while computing jobs are running should be compensated back to users account.
20. The order will be deemed successfully delivered and ready for payment once the available computing node time is visible on the cloud provider's portal.
21. Only Linux instances/SKUs should be quoted.

Bill of Quantities

The bidder must quote for 2300000 core hours supporting up to 15 TB of hot storage meeting the technical criteria mentioned above. Compute, storage, and other add ons such as master node/login node or any other components have to be quoted by the bidder. The service charge for the whole bid must also be quoted, if any. The L1 bidder will be declared based on this quote. Other conditions the bidder should meet are:

1. Once the L1 bidder is declared based on the above quote, the user may choose to have some flexibility with the number of core hours and storage needed. Specifically, if extra funds are available in the budget, the user will request more computing core hours and/or storage based on requirement.
2. In addition to the above, the bidder must also quote the price for archiving 15 TB data and making it available to the user for a period of five years. This price will not be used for determining L1.
3. The user's utilization can vary anywhere between 120 cores to 3600 cores or higher during the usage period on an on demand basis. The user reserves the right to scale the requirement for compute, storage, etc based on the prices quoted for different components.
4. The bidder should mention names of instances/SKUs for which price is quoted. It should be possible to get the list price and technical specifications of the instances/SKUs from the cloud provider's web site.
5. The price of any instances/SKUs for the user should be capped at the quoted price at the time of bidding. If instance/SKU prices reduce, the reduction should be passed on to the user.
6. If any discounts are offered by the cloud provider or bidder, the discounts should be given as a percentage of usage.

PART F : FORMAT OF TECHNICAL BID

Annexure - 1

APPLICATION FORM

[NOTE: On the letterhead of the applicant including full postal address, email address, telephone no. and fax no.]

Date: _____

**To,
The Centre Director,
International Centre for Theoretical Sciences
Survey No. 151, Shivakote, Hesaraghatta Hobli
Bengaluru – 560 089**

Sirs,

1. Being duly authorised to represent and act on behalf of (hereinafter referred to as “the Applicant”) and having reviewed and fully understood all the pre-qualification information provided, the undersigned hereby applies to be pre-qualified by yourselves as a tenderer for award of as per specification attached at ICTS, Bangalore.
2. Attached to this letter are copies or original documents defining:
 - (a) the applicant’s legal status
 - (b) the principal place of business
 - (c) the place of incorporation (for applicants who are corporations) or the place of registration and the nationality of the owners (for applicants who are partnerships or individually owned firms)
 - (d) Annexure no. II to VI
3. Your agency and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this application, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This letter of application will also serve as authorization to any individual or authorized representative or any institution referred to in the supporting information, to provide such information deemed necessary and requested by you to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.
4. Your agency and its authorized representatives may contact the following persons for further information on general, personnel, technical and financial enquiries.
Contact 1 : Name, email and Phone no.
Contact 2: Name, email and phone no.
5. This application is made with the full understanding that:
 - (a) Bids submitted by applicants will be subject to verification of all information submitted at the time of bidding
 - (b) Your agency reserves the right to:
 - amend the scope and value of the contract / bid under this project; in such event, bids will only be called from pre-qualified bidders who meet the revised requirements; and
 - reject or accept any application, cancel the pre-qualification process, and reject all applications without assigning reasons or incurring any liability thereof; and
 - (c) Your agency shall not be liable for any such actions and shall be under no obligation to inform the applicant.
6. The undersigned declares that statements made and the information provided in the duly completed application are true and correct in every detail.

Signed and sealed, Name
For and on behalf of.....

GENERAL INFORMATION

(Pre-qualification Criteria)

Sr. No.	Particulars of bidder/cloud provider	Attached (Y/N)	Page No.
1	Name of tendering company/firm		
2	Name of directors		
3	Full particulars of office		
A	Address		
B	Telephone number		
C	Fax number		
D	Email address		
4	Particulars of the bankers of company/firm		
A	Bank details		
B	Address of the bank		
C	Email address of the bank		
5	Details of earnest money/tender fee deposit		
A	Amount (Rs.)		
B	D. D. No. and date		
C	Drawn on bank		
	Pre-qualification criteria for cloud provider		
6	The cloud provider must be empanelled by MeitY and audited by STQC or equivalent as on bid submission date for IaaS and PaaS.		
7	The cloud provider should possess following certifications on bid submission date: ISO/IEC 27701 and ISO/IEC 27001 (Information Security Management), ISO/IEC 27018 (Code of Practice for Protection of Personal Data), ISO 22301 (Security and Resilience), ISO 9001 (Quality Management System), and SOC 1, 2, and 3 (Service Organization Controls Standards for Operational Security) security compliance certification or equivalent.		
8	The cloud provider should be listed in one of the four Gartner Magic Quadrants for IaaS for 2021.		
9	The cloud provider should be registered under Companies Act 1956, or as an LLP Firm or Partnership under Partnership Act 1932.		

10	The cloud provider must have a positive net worth in the last three financial years (2020-21, 2021-22, 2022-23) with at least 5 years of operations in India by the bid submission date.		
11	At the time of the bid, the cloud provider should be servicing at least three high-performance computing customers of magnitude equivalent to estimated cost of this order (₹60 lakh).		
12	The cloud provider should have experience in India of executing at least two government projects with central government organisations or public sector units in the last three years.		
13	The cloud provider should have at least ten times the estimated cost of this order (₹60 lakh) as overall annual revenue from their high-performance computing business.		
14	The cloud provider should not have been blacklisted or debarred by the central government, any state government, or any government organisation in five years preceding the bid submission date.		
	Pre-qualification criteria for bidder		
15	Bidder must be able to deploy applications and virtual machines on the cloud at the highest standards of security, with continuous monitoring.		
16	Bidder must have cloud-provider- certified manpower for creating Linux-based high-performance computing environments. Their team should be skilled to provide the support described in the Technical Specifications section of this RFP. The bidder's proposal should include a self-certification with details of cloud-provider-certified manpower.		
17	Bidder should be an authorized partner of the cloud provider, or a consortium of such partners.		
18	Bidder should be in the high-performance computing business, cloud or on premise, for at least three years.		
19	In the past 5 years, the bidder should have executed (a) three similar orders of value not less than 40% of this order's estimated value, or (b) two similar orders of value not less than 60% of this order's estimated value, or (c) one similar order of value not less than 80% of this order's estimated value. Similar here means a		

	provision of cloud- based computing or on premise computing to a government department, university, research institute, or a reputed private firm. This order’s estimated value is ₹60 lakh. At least one of these orders should be with a government organisation in India. The bidder’s proposal should include completion certificates with the signing authority’s contact details.		
20	Bidder should not have been blacklisted or debarred by the central government, any state government, or any government organisation in 5 years preceding the bid submission date.		
21	Bidder should have experience in executing high-performance computing offerings, either on the cloud or on premises.		
22	Bidder should submit an authorisation certificate from the cloud provider, on the cloud provider’s letterhead, quoting this RFP’s reference number.		

FINANCIAL CAPABILITIES

Financial Year	Annual Turn Over in Indian Rupees (or equivalent to Indian Rupees) as per Audited Balance Sheet
2020-2021	Rs.
2021-2022	Rs.
2022-2023	Rs.

Financial Information in Rs. Equivalent	For year 2018-19	For year 2019-20	For year 2020-21	For year 2021-22	For year 2022-23
1. Total Assets					
2. Current Assets					
3. Total Liabilities					
4. Current Liabilities					
5. Profit before Tax					
6. Profit after Tax					
7. Net Worth					

NOTE : The above data is to be supported by audited balance sheets

1. Attach copies of audited balance sheets duly certified by the chartered accountant for all three years. Audited Balance sheet should mention the membership number of chartered accountant issued by ICAI along with full address.

Signature and seal of the Authorized Signatory of the bidder

EXPERIENCE OF COMPLETION OF PROJECTS OF SIMILAR NATURE & COMPLEXITY

(During last five years ending last day of month previous to the one in which applications are invited)

Sl.No.	Name of work/ project and location	Owner or sponsoring organization	Cost of work in Lakhs	Date of commenceme nt as per contract	Stipulated date of completion	Actual date of completion	Name and address/ telephone number of officer to whom reference may be made	Remarks

NOTE : Please attach supporting documents (completion certificates along with order copies) for the above information

Signature and seal of the Authorized Signatory of the bidder

FORM OF AGREEMENT

This Agreement made the.....day of 2024, between International Centre for Theoretical Sciences (ICTS), Bangalore for the entering into the works for High Performance Computing Nodes on the cloud (hereinafter called "The Employer") who enters into this Agreement of the one part and M/s..... (here in after called "The Contractor") of the other part.

Whereas the Employer is desirous that certain works should be executed by the Contractor, viz ("the Works") and has accepted a Bid by the Contractor for the execution and completion of the works and the remedying of any defects therein.

Now this Agreement witnessed as follows:

I

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
 - (a) The Letter of Award;
 - (b) The said Bid;
 - (c) The General Conditions of Contract;
 - (d) Prequalification document
 - (e) Instructions to Tenderers and Specific Conditions of Contract;
 - (f) The Specification;
 - (g) The Drawings;
 - (h) The Price Bid
 - (i) Any other relevant documents referred to in this Agreement or in the aforementioned documents
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of this work.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or only such other sums as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written. Signed, Sealed, and Delivered by the Said

Binding Signature for and on behalf of ICTS-Bangalore
 Binding Signature of Contractor _____
 In the presence of

Witness (1) :
 Witness (2) :

BANK GUARANTEE FORMAT

In consideration of the International Centre for Theoretical Sciences (hereinafter called "The ICTS") having agreed under the terms and conditions of Work Order No..... dated made between ICTS and M/s..... (hereinafter called "the said Contractor(s)") for the work (hereinafter called "the said Work Order") having agreed to production of a irrevocable bank Guarantee for Rs. (Rupees only), as a security / guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said Work Order; we (Indicate the name of the Bank) (hereinafter referred to as "the Bank") hereby undertake to pay to the ICTS an amount not exceeding Rs. (Rs only) on demand by the ICTS.

2. We (indicate the name of Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the ICTS stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....(Rupees..... only).
3. We, the said bank, further undertake to pay to the ICTS any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.
4. We(indicate the name of bank) further agree that the guarantee herein contained shall remain in force and effect during the period that would be taken for the performance of the said Work Order and that it shall continue to be enforceable till all the dues of the ICTS under or by virtue of the Work order have been fully paid and its claims satisfied or discharged or Purchase Officer on behalf of the ICTS certifies that the terms and conditions of the said Work Order have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee
5. We (indicate the name of Bank) further agree with the ICTS that the ICTS shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Work Order or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the ICTS against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Work Order and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the ICTS or any indulgence by the ICTS to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
7. We, (indicate the name of Bank) lastly undertake not to revoke this guarantee except with the previous consent of the ICTS in writing.
8. This guarantee shall be valid up to , unless extended on demand by ICTS. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Signed and sealed

Dated the day of for

(indicate the name of Bank)

