



आर्यभट्ट प्रेक्षण विज्ञान शोध संस्थान
Aryabhatta Research Institute of
Observational Sciences
(An Autonomous Institute under DST, Govt. of India)

Tender Reference No. AO/3-7(3)/20-21/2944

Date: 19 February, 2021

TENDER (E - PROCUREMENT MODE)

for

Supply, installation, testing, and commissioning (SITC) of a small High-Performance Computing (HPC) cluster system at ARIES

Registrar
ARIES, Manora Peak
Nainital.

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A. BACKGROUND

Aryabhatta Research Institute of observational sciences (acronym for ARIES; <http://www.aries.res.in>) is an autonomous research institute under the Department of Science and Technology (DST), Government of India. ARIES is on a hilly terrain called Manora Peak, near the beautiful lake city of Nainital located in the Debhoomi of Uttarakhand State in the Central Gangetic Himalayan region. The institute is carrying out fundamental research in various fields of Atmospheric Science, Astronomy & Astrophysics and Solar physics.

B. DETAILS

Name of the Purchaser:

The Director, Aryabhatta Research Institute of Observational Sciences (ARIES),
Under Department of Science Technology (DST), Govt. of India
Manora Peak, Nainital -263 001, Uttarakhand

C. TIME SCHEDULE

Tender documents may be downloaded from ARIES Website: <http://www.aries.res.in> (for reference only) and CPPP Site <http://eprocure.gov.in/eprocure/app> as per the schedule given in the **CRITICAL DATE SHEET** as under:-

Date of publishing on CPP Portal	20-02-2021
Document Download Start Date & Time	20-02-2021 (18:00 hrs.)
Clarification Start Date & Time	20-02-2021 (18:00 hrs.)
Bid Submission Start Date & Time	20-02-2021 (18:00 hrs.)
Document Download End Date & Time	17-03-2021 (15:00 hrs.)
Clarification End Date & Time	17-03-2021 (15:00 hrs.)
Bid Submission End Date & Time	17-03-2021 (15:00 hrs.)
Bid Opening Date & Time for opening of technical bids	18-03-2021 (16:00 hrs.)
Venue, Date and Time for opening of Financial bid	Will be intimated through online CPPP to Technically Qualified Tenderer.
Earnest Money Deposit (EMD)	Rs. 2,00,000 (Rs. Two Lakh only).

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Registrar
ARIES, Manora Peak
Nainital.

D. SUBJECT AND BRIEF SCOPE OF WORK

Supply, installation, testing, and commissioning (SITC) of a small High-Performance Computing (HPC) cluster system as per the requirements mentioned in this Tender at ARIES datacenter location. Subsequent to the successful installation & commissioning, the bidder would also be responsible for providing the complete Warranty support in accordance with the requirements as specified in this Tender. The solution offered by the Bidder should comply with all the requirements of this Tender.

E. PRODUCT UTILIZATION

The product is being purchased for research purposes and will be utilized to meet the requirements of the institute's in-house R&D activities in the area of astronomy, astrophysics, atmospheric sciences, and engineering applications. The required system must support future expansion.

F. CONTACT PERSONS FOR CLARIFICATION & INFORMATION

For Finance/ Administrative Queries:

Sh. Ravinder Kumar, Registrar

Aryabhata Research Institute of Observational Sciences (ARIES),
Under Department of Science Technology, Govt. of India
Manora Peak, Tallital Sub PO, Nainital 263 001, Uttarakhand, India
Tel: +91-(5942) – 270729, **E-mail:** registrar@aries.res.in

For all other Enquiries (doubts or queries pertaining to technical solution):

Dr. Ashish Kumar, Engineer

Aryabhata Research Institute of Observational Sciences (ARIES),
Under Department of Science Technology, Govt. of India
Manora Peak, Tallital Sub PO, Nainital 263 001, Uttarakhand, India
Tel: +91-(5942) – 2707815, **E-mail:** ashish@aries.res.in

G. INSTRUCTIONS FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal (<https://eprocure.gov.in/eprocure/app>), using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the



CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at:

<https://eprocure.gov.in/eprocure/app>.

[1] Registration:

- i. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online bidder Enrollment” on the CPP Portal which is free of charge.
- ii. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- iii. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- iv. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- v. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- vi. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

[2] Searching For Tender Document:

- i. There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- ii. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the



bidders through SMS / email in case there is any corrigendum issued to the tender document.

- iii. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

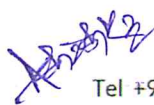
[3] Preparation Of Bids:

- i. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- ii. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- iii. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- iv. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

[4] Submission Of Bids:

- i. Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- ii. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.



- iii. Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.
- iv. Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- v. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. The price bid has been given as a standard BoQ format with the tender document, the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- vi. The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- vii. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener’s public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- viii. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- ix. Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), the portal will give a successful bid submission message &

a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

- x. The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

[5] Assistance To Bidders:

- (a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- (b) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

H. GENERAL INSTRUCTIONS FOR TECHNICAL BID SUBMISSION

To qualify in the Technical bid the firm should have the minimum eligibility criteria as under and the Bidder in this regard must submit the following supporting documents in the Technical bid.

- a. Bidder must be incorporated in India as Proprietary firm or partnership firm or private or LLP or Ltd. Company under the Companies Act/Limited Liability Partnership Act and should be in existence in India for the last 05 Years (as on the last date of Bid submission) in the areas of High performance computing supply/installation/service. Certificate of Registration/ Certificate of Incorporation and other relevant documents for this criteria must be provided by the bidder in Technical Bid, self-attested by the authorized signatory of the bidder.
- b. Should have valid PF Code, Bank Current Account in the name of the Firm, Income Tax Return Filed Acknowledgement (last 03 years), PAN, GST, and Registration Certificate. All the supporting documentary evidences for this criteria must be provided by the bidder in Technical bid, self-attested by the authorized signatory of the bidder.
- c. The Bidder should be a certified/authorized partner of the respective OEM of the offered HPC system. The bidder should have valid authorization/certification from and active relationship with the respective OEM(s) as on the last date of Bid submission. Required Certificate(s)/ Authorization(s) from the respective OEM(s) have to be submitted in the format provided as **ANNEXURE-I**. [Note:- This ANNEXURE must be filled by the OEM].

- d. The Bidder should have an Average Annual Turnover of at least **INR 500 lakh** with positive Net Worth for last 3 financial years as per Audited Annual Accounts. Audited Annual Accounts Statements (Relevant Schedules and Annexures, Statement of Asset and Liabilities & Profit and Loss Account) for last 3 financial years are to be submitted in the Technical bid.
- e. Bidder security in the form of EMD as specified in the Tender.
- f. Bidder should not have any direct Contract Agreement with ARIES and should not have been terminated in last five (05) years as on the date of submission of the bid. An undertaking in the format prescribed in **ANNEXURE-II** is to be submitted.
- g. The Bidder shall not be under declaration of ineligibility for corrupt or fraudulent practices or blacklisted or debarred in last five years by any Department / Agency / PSU/ Organization of the Government of India or any Central or State Government in India for non-satisfactory past performance, corrupt, fraudulent or any other unethical business practices. An undertaking in the format prescribed in **ANNEXURE-III** is to be submitted.
- h. The Bidder/OEM must have an experience of executing minimum five (05) HPC installations in the Top 500 supercomputing list as per top500.org and successfully supplied and installed a minimum of three (03) HPC systems with more than 300 cores in any premier Indian academic and research institutions. The bidder must enclose documentary evidences for the same in the technical bid.
- i. The bidder should submit the documentary evidence of successful installation and maintenance (at least for a year) of distributed memory node cluster of at least 512 cores (of CPU) by the bidder/OEM in any Government organizations/PSU/Government Educational Institutes in a single order.
- j. The Bidder/OEM should have valid ISO certification. A copy of the certificate as proof must be attached in the Technical bid.
- k. The Bidder/OEM must provide the Malicious Code Certificate in the format prescribed in **ANNEXURE-IV**.
- l. Detailed Technical Proposal, specifications, make & models of all the offered items, datasheet/brochure, detailed bill of material, proposed system floor plan, architectural layout/drawing with description, and Compliance statement as per (**ANNEXURE-VII**) are to be submitted. The bidder should be in a position to deliver complete end-to-end

solution. Technical proposal has to clearly reflect the competence and capability of the bidder in meeting this requirement.

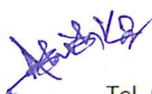
- m. The bidder should provide the full details and requirements for space and dimensions needed for Installation, details on the electrical power (including UPS rating) requirements, and the cooling requirements in the Technical bid.
- n. The parts offered should not become obsolete within five (05) years of installation. A letter of commitment for five (05) years with respect to hardware and software supports from the OEM should be enclosed in the Technical bid. Offers will be rejected if they are not accompanied by the letter from OEM.
- o. Tender Acceptance letter (**ANNEXURE-V**)
- p. All the supporting documents and printed literature furnished by the Bidder should be either in Hindi or in English language.
- q. Details regarding Training, after-sale Supports, and Warranty.
- r. Bidder/OEM must have Dedicated/toll Free dedicated /toll Free Telephone No. for Service Support and should provide Escalation Matrix of Telephone Numbers for Service Support.
- s. Self-Certificate for Local Content **ANNEXURE-VI**
- t. Bid Security/EMD exemption proof, if applicable (refer Clause J.(b) of Tender)

NOTE:

- i. No Price information shall be mentioned in Technical Bid otherwise the entire bid shall be rejected.

I. GENERAL INSTRUCTIONS FOR FINANCIAL BID SUBMISSION

- i. The Prices quoted should be inclusive of all taxes or duties etc. F.O.R. at destination site of ARIES.
- ii. The offered price in the financial bid shall be final. No variation in prices will be allowed under any circumstances during the entire period of project. Nothing extra shall be paid on any account.
- iii. **Custom Duty/GST:** ARIES, Nainital is registered with DSIR, Govt. of India and is exempted from Custom Duty/ GST. ARIES will provide necessary certificate for the purpose of availing custom duty/GST exemption in terms of Government Notification No. 51/96-Customs dated 23rd July, 1996, Notification No. 28/2003- Customs dt.01.03.2003, Notification No. 43/2017-Customs dated. 30.06.2017 & Notification No. 47/2017-



Integrated Tax (Rate) Dt.14-11-2017, Notification No.10/2018-Integrated Tax (Rate) Dt. 25.01.2018, Notification No. 45/2017-Central tax (Rate) Dt 14.11.2017 and Notification No. 45/2017- Union Territory Tax (Rate) Dt. 14.11.2017 & Notification No. 9/2018-Central Tax (Rate) dated. 25.01.2018, Notification No. 9/2018- Union Territory tax (Rate) dated. 25.01.2018, as amended from time to time for research purposes only, to avail the exemption ARIES shall provide the above certificate along with the supply order.

- iv. Prices shall be quoted in Indian Rupees (INR) only. All payment shall be made in Indian Rupees.
- v. In preparing the financial bid, bidders are expected to take into account the requirements and conditions laid down in this tender document. The financial bid should be uploaded online as per the specified BoQ in '.xls' format with this tender. Any alternatives or modifications shall render the tender invalid; tenders with conditional offers will be invalid.
- vi. **Taxes/Other Charges:** GST charges should clearly be mentioned in the financial bid.

J. DETAILS OF BID SECURITY/ EARNEST MONEY DEPOSIT (EMD)

- (a) Bid Security may be provided through direct transfer (RTGS/NEFT), Account Payee Demand Draft, Fixed Deposit Receipt, Banker's cheque or Bank Guarantee from a Nationalized bank drawn in favour of "Director, ARIES", payable at Nainital. If Bid Security has been submitted by any other mode than NEFT/ RTGS, then hard copy of the Bid Security has to be sent through Registered Post/Speed post. It should reach ARIES, Nainital before the bid submission deadline To, Director, ARIES, Manora Peak, Tallital Sub PO, Nainital 263001, Uttarakhand, India in a sealed envelope super scripted the tender ID or Tender reference Number and with company full address. None of the documents except for Bid Security (EMD) shall be accepted in physical form.
- (b) **Exemption for Bid Security:** Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprise (MSMEs) or the bidders who are registered with the Central Purchase Organization or Concerned Ministry or Department or Startups as recognized by Department of Industrial Policy and Promotion are exempted from BID SECURITY subject to submission of documentary evidence, relevant certificate issued by competent authority in the Technical bid. If the bidder fails to provide the relevant category of certificate in the Technical bid, then EMD exemption will not be applicable.



(c) The details for Bid security/EMD payment are as follows:

- i. Account Name : Director, ARIES, Account
- ii. Bank Name : State Bank Of India
- iii. Address : Hanning The, The Mall, Nainital, Uttarakhand- 263001
- iv. Account Number : 10860840253
- v. IFSC Code : SBIN0000687

(d) No interest shall be paid on the Earnest Money deposited by the tenderer. EMD/Bid Security of disqualified vender/ vendors will be returned within 45 days after opening of Financial/Commercial bid.

K. LAST DATE FOR SUBMISSION OF TENDER

- (a) Online bids complete in all respects, must be submitted on or before the last date and time specified in the Clause C. TIME SCHEDULE.
- (b) Director, ARIES may, at its own discretion, alter/extend the last date for submission of the tender.

L. BID VALIDITY

- (a) The submitted bid must be valid for a period of 120 days from the last date of submission of the tender.
- (b) A bid valid for a shorter period shall be declared as non-responsive.
- (c) In exceptional circumstances, prior to expiry of the original time limit, ARIES may request the bidders to extend the period of validity for a specified additional period beyond the original validity of 120 days without any additional financial implications. Under such circumstances, the Bidders should be ready to extend the validity.

M. PROJECT COMPLETION PERIOD

The entire SITC work of the HPC cluster components, sub-systems, etc. covered in this tender must be completed by the successful bidder alongwith the final acceptance within maximum Twelve (12) weeks of the receipt of the firm Purchase order from ARIES.

N. BID EVALUATION & AWARD OF CONTRACT

- i. After the opening of the technical bid, the technical evaluation will be done by a Technical evaluation committee (TEC). In case the committee decided for seeking further information/clarification, the same shall be provided by the bidder through CPP portal.

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Those bids which are technically qualified as per eligibility 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 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.

- ii. 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.
- iii. The contract will be awarded for technically suitable lowest evaluated bidder (L1) whose bid has been found to be responsive and who is found eligible and qualified as per the tender document.

O. PREFERENCE TO 'MSME'

ARIES complies with Public Procurement Policy **Micro and Small Enterprises (MSEs) Order, 2012** as notified under **section 11** of MSME Act, 2006. Purchase preference shall be given to MSEs in all procurements undertaken by ARIES in the manner specified as below:

- i. In case bid is splittable or dividable, etc., MSMEs quoting price within price band L-1 + 15%, when L1 is from someone other than MSMEs, shall be allowed to supply at least 20% of tendered value at L-1 subject to lowering of price by MSMEs to L-1.
- ii. In case bid is non-splittable or non-dividable etc., MSEs quoting price within price band L-1 + 15% may be awarded for full/complete supply of total tendered value to MSME, considering spirit of policy for enhancing the Govt. Procurement from MSME.

P. PREFERENCE TO 'MAKE IN INDIA'

ARIES complies with Public Procurement Policy (Make in India) vide order No. P-45021/2/2017-PP (BE-II) dated 16 Sept 2020, issued by Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Govt. of India. Purchase preference shall be given to local suppliers in all procurements undertaken by ARIES in the manner specified in the above-mentioned O.M. Further, the guidelines mentioned below shall be followed:

Verification of Local Content.

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

Definitions:

'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

- 'Class -I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under this order.
- 'Class -II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 20% but less than 50%.
- 'Non-local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than 20%.

Q. QUALITY OF GOODS

- i. The successful bidder (Contractor) shall deliver the items/goods that are:
- a) of the quality, quantity and description as required to execute the work; and
 - b) free from any right or claim of a third party, including rights based on industrial property or other intellectual property.
- ii. In case of "homogeneously defined" or disposable items/goods, should any portion of the items/goods, at any time prove to be defective during the period of contract, including warranty, the Contractor shall replace that portion of the items/goods and bear all costs associated with the replacement of the same.
- iii. **Test Certificate:** Wherever required the Test Certificate should be sent alongwith the relevant dispatch document.

R. INSPECTION AND ACCEPTANCE

- (a) Upon delivery of the items/goods, the ARIES shall inspect them. Should any Goods fail to



conform to the technical specifications, codes and standards, the ARIES may reject the same. The Contractor shall, at no cost to the ARIES, replace the rejected Goods or, alternatively, rectify the non-conformity.

- (b) Any inspection carried out by representative(s) of ARIES shall be without prejudice to other provisions of the Contract concerning obligations assumed by the Contractor, including specifications of the Goods.
- (c) REJECTED STORES at ARIES shall be at the Contractor's risk and responsibility, if the rejected items/goods will not be taken away by the Contractor within a period of 14 days from the date of receipt of the advice or rejection, ARIES at its discretion has the right to dispose the same.

S. OTHER TERMS AND CONDITIONS

- [1] **Insurance:** Transit insurance covering all risk for all the items is to be arranged by the contractor.
- [2] **Observance of law and export licences:** The Contractor shall comply with all laws, ordinance, rules and regulations bearing upon the performance of its obligations under the terms of the Tender. If an export license or any other governmental authorization is required for the Goods, it shall be the obligation of the Contractor to obtain such license or governmental authorization.
- [3] **Transportation of Goods:** The contractor will arrange transportation of the ordered items/goods as per its own procedure.
- [4] **Packing:** The items/goods shall be packed and marked in a proper manner and in accordance with the Tender and any statutory requirements and any requirements of the carrier(s). In particular,
 - i. The items/Goods shall be marked with the ARIES Purchase Order number and the net, gross and tare weights, the name of the contents shall be clearly marked on each container and all containers of hazardous goods (and all documents relating thereto) shall bear prominent and adequate warnings.
 - ii. The Contractor shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination and the absence of appropriate handling facilities at all points in transit.

- [5] **Counter terms & conditions of bidder:** Where Counter Terms and Conditions/printed or cyclostyled conditions have been offered by the bidder, the same shall not be deemed to have been accepted by ARIES, unless specific written acceptance thereof is obtained.
- [6] **Indemnity:** The bidder shall warrant and be deemed to have warranted that all stores supplied against this tender are free and clean of infringement of any patent, copy right or trade mark, and shall at all time indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by patent, registration of design or trade mark and shall take all risk of accidents of damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all the means used by him for the fulfillment of contract.
- [7] **Arbitration:** Any disputes, legal action/matters, arising out of/ resulting from/related or incident to the tender /quotation/Purchase order/invoices/delivery/payments shall be subject to exclusive jurisdiction of Nainital -263001. Laws of India shall govern this tender as well as any or all transactions /documents/deeds/actions/PO arising out of/ resulting from this tender.
- [8] **Language of the Bid Proposal:** The Language of the bid proposal as prepared by the Bidders should be in English and all further correspondence with the office and all the documents pertaining to the bid proposal shall be in English& Hindi.
- [9] **Consignee or Bill to be sent to:** The Director, ARIES
- [10] **Institute's Rights:** Director, ARIES reserves the right to accept or reject any or all the bids without assigning any reason thereof.
- [11] **Terms of Payment:**
1. No advance payment against pro forma invoice will be made.
 2. 90% after the successful commissioning (receipt, installation, testing, training and acceptance) of the system, and 10% after submitting performance security in the form of Bank Guarantee (PBG) as per the tender.
 3. All invoices shall be in original and shall contain the ARIES Purchase Order number, and a description, the quantities, unit and total price(s) of the Goods delivered.
 4. ARIES shall not pay any charge for late payments.
- [12] **Liquidate damage:** Liquidated damage as decided by ARIES will be charged, if the item(s) is/are not delivered within the stipulated time frame. ARIES reserves the right to levy a penalty for delay in delivery of material. This penalty shall be @ of 0.5 % of Purchase Order value per week of delay in deliveries/ execution of the order successfully, subject to

maximum of 10% of the order value. Part of the week shall be considered as full week. ARIES will be free to cancel the order in case the delay is more than 5 weeks with forfeiture of EMD/Security Deposit.

[13] Performance Bank Guarantee (PBG): The successful bidder have to furnish performance security to ARIES in the form of Bank Guarantee of 10% of the total value of the project towards adequate security for the materials/property for the due execution of the Tender. The PBG will be released beyond 2 months after the completion of the warranty period.

[14] Force Majeure: "Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies. Force Majeure shall not include: (a) Any event which is caused by the negligence or intentional action of a Party or such Party's employees, nor (b) Any event which a diligent Party could reasonably have been expected. The occurrence shall be notified by the bidder within 15 days from the date of such an event in writing. The decision of the Director, ARIES with regard to the occurrence, continuation, period or extent of Force Majeure shall be final and binding on the successful bidder.

Important Note: Amendment, Corrigendum if any to this tender document, will be hosted only on ARIES WEBSITE and CPP Portal and no separate press notification will be issued. Bidders are advised to visit our website and CPP Portal regularly to know such details.

T. SCOPE OF WORK

Scope of work includes the following:

- i. Supply, installation, testing, integration, configuration, and commissioning of all the required hardware and operating system, open-source software suites, including but not limited to management of HPC, racking and stacking, cluster networking, configuring all nodes, execution and submission of jobs, installation of open source compilers and applications, configuration of environment variables, license utility configuration, cabling etc. as per the requirement. The installation shall be executed by the Engineers



certified and trained by the OEM for such HPC cluster stack and other peripherals.

- ii. The selected bidder should provide a minimum of THREE (03) days onsite training at ARIES after successful installation and commissioning of the said equipment free of cost. This training shall be to the satisfaction of ARIES Scientists and Engineers. The training session must include the installation of software's, bench-marking calculation, executions of simulation, monitoring of HPC Clusters, LINUX commands etc.

[1] TECHNICAL SPECIFICATIONS

The technical specification of the system is detailed below.

A. Head Node with Storage – 01 unit

S.No	Specification	Description
1.	Processor	<ul style="list-style-type: none"> • 2 × Intel Xeon Latest generation processor (Gold 6226R); • Number of cores per CPU= 16; ◦ Number of Threads = 32; ◦ Minimum Processor Base Frequency = 2.9GHz; • Max Turbo Frequency = 3.9GHz; • Cache = 22MB L3; ◦ Max Memory Size = 1TB; • Memory Types = DDR4-2933; ◦ Maximum Memory Speed = 2933 MHz or higher ◦ Maximum no. of memory channels = 6
2.	Chipset	Latest OEM Chipset supporting and optimized for above processor.
3.	Operating System	Should have full-featured latest version of 64-bit CentOS
4.	RAM	<ul style="list-style-type: none"> ◦ Minimum 12 X 16GB (192GB) ECC, DDR4-2933 MHz in balanced configuration for optimizing the memory bandwidth. ◦ RAM DIMM sizes should be selected for maximum performance. ◦ Advanced ECC with multi-bit error protection, Online spare, mirrored memory and fast fault tolerance

5.	Hard Disk Drives (HDD)	<ul style="list-style-type: none"> For OS: 2X960 GB SATA SSD or higher with Support for Hardware RAID 0, 1 For storage: 8 x 8TB or higher NL-SAS drives 7.2K RPM or better with Support for Hardware RAID 0, 1, 5 and 6 with 2GB or higher RAID cache and battery backed cache. The drive carrier should have intuitive icon based display along with "DO NOT REMOVE" caution indicator that gets activated automatically in order to avoid data loss/downtime due to wrong drive removal.
6.	Controller	<ul style="list-style-type: none"> PCIe 3.0 based 12Gb/s SAS Raid Controller with RAID 0/1/1+0/5/50/6/60/1 Advanced Data Mirroring/10 Advanced Data Mirroring (onboard or on a PCI Express slot) Storage controller should support Secure encryption/data at rest Encryption
7.	Graphics controller	Integrated Graphics with at least 16MB Video Memory.
8.	Network interface (Ethernet)	<ul style="list-style-type: none"> Atleast 2 x 1Gbps ports with Pre-boot Execution Environment (PXE) boot capability (including CAT6 cable for connecting to switch)
9.	Cluster Interconnect	Refer – “C. Cluster Interconnect”
10.	Ports	Minimum 3 USB 3.0 or higher
11.	Server management	<ul style="list-style-type: none"> OEM server management suite, Integrated remote management controller with dedicated 1GbE with KVM and Media over LAN features. Must include any licenses, if required for using these features. It should be able to automate management tasks and automated firmware updates. A LED panel to display system ID, status information, and system error messages.
11.	Power supplies	Redundant and Hot Pluggable, Platinum or better certified redundant power supply along with the required Power

		cables and connectors. Low halogen power supplies with minimum 94% efficiency
12.	Cooling	Hot plug and redundant fans.
13.	Form Factor	2U rack mountable or smaller form factor.
14.	System Security	<ul style="list-style-type: none"> ◦ UEFI Secure Boot and Secure Start support • Security feature to ensure servers do not execute compromised firmware code ◦ FIPS 140-2 validation ◦ Support for Commercial National Security Algorithms (CNSA) • Common Criteria certification • Configurable for PCI DSS compliance • Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser ◦ Tamper-free updates - components digitally signed and verified ◦ Secure Recovery - recover critical firmware to known good state on detection of compromised firmware • Ability to rollback firmware • Secure erase of NAND/User data • TPM (Trusted Platform Module) 1.2 • TPM (Trusted Platform Module) 2.0 ◦ Chassis Intrusion detection
15.	Secure Encryption	<ul style="list-style-type: none"> ◦ System should support Encryption of the data (Data at rest) on both the internal storage and cache module of the array controllers using encryption keys. Should support local key management for single server and remote key management for central management for enterprise-wide data encryption deployment.
16.	Provisioning	<ul style="list-style-type: none"> ◦ Should support tool to provision server using RESTful API to discover and deploy servers at scale

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		<ul style="list-style-type: none"> Provision one to many servers using own scripts to discover and deploy with Scripting Tool (STK)
17.	Firmware security	<ul style="list-style-type: none"> 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. This feature should be immutable 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
18.	Cloud Enabled Monitoring and Analytics	<ul style="list-style-type: none"> Offered servers shall have cloud enabled monitoring and analytics engine for proactive management. Cloud Enabled Monitoring and analytics engine shall have capability to provide following: <ol style="list-style-type: none"> Providing Firmware upgrade and patch upgrade recommendations proactively. Providing power and support entitlement status. Recommendations to eliminate performance bottlenecks and critical events, based on Analytics engine having capability of proactive recommendation for arresting the issues / problems.
19.	Monitoring, Analytics, and Performance	<ul style="list-style-type: none"> Should have continuous, proactive health monitoring and recording of required system parameters as well as diagnostic telemetry data on a 24x7 basis. Should have monitoring & analytics feature for the offered server/chassis along with its sub-components to predict, prevent, and auto-resolve problems and by providing automating case creation and log file submission for the problems that can't be auto resolved.

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Manora Peak, Nainital-263001, Uttarakhand, India

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Registrar

ARIES Manora Peak
Nainital

		<ul style="list-style-type: none"> Should help simplify the infrastructure management plan by predicting capacity, performance and bandwidth needs.
20.	Warranty	<ul style="list-style-type: none"> 05 years NBD OEM comprehensive onsite warranty with back-to-back OEM support. The OEM should have service setup in India. Physical on-site visit by technical experts of OEM for maintenance and technical support whenever needed. 24 ×7 call logging by OEM or technical experts of suppliers to resolve various issues by ARIES users.
21.	Bill of Material	The detailed BOM with part codes should be submitted. All the components of the server should be from the same OEM.
22.	Bidder should provide all necessary Cables, Connectors, Components (Ethernet Cables, SFP28 Cables, KVM cables etc.) required for the quoted system.	

B. Compute Nodes – 03 units

(NOTE: Unit rate of the offered Compute Node alongwith all necessary Cables, Connectors, Components (Ethernet Cables, SFP28 Cables, KVM cables etc.) required for expanding the offered system must also be quoted **separately as an OPTIONAL ITEM** and this element will not be considered while deciding L1.)

S.No	Specification	Description
1.	Processor	<ul style="list-style-type: none"> 2 × Intel Xeon Latest generation processor (Gold 6240R or higher); Number of cores per CPU= 24; Number of Threads = 48; Minimum Processor Base Frequency = 2.4GHz; Max Turbo Frequency = 4.0GHz; Cache = 35.75MB L3; Max Memory Size = 1TB or better; Memory Types = DDR4-2933; Maximum Memory Speed = 2933 MHz or higher Maximum no. of memory channels = 6

[Signature]

Manora Peak, Nainital-263001, Uttarakhand, India

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[Signature]
Registrar
ARIES, Manora Peak
Nainital

2.	Chipset	Latest OEM Chipset supporting and optimized for above processor.
3.	Operating System	Should have full-featured latest version of 64-bit CentOS
4.	RAM	<ul style="list-style-type: none"> Minimum 12X32GB (384GB) Registered ECC, DDR4-2933 MHz in balanced configuration for optimizing the memory bandwidth. RAM DIMM sizes should be selected for maximum performance Advanced ECC with multi-bit error protection, Online spare, mirrored memory and fast fault tolerance
5.	Hard Disk Drives (HDD)	<ul style="list-style-type: none"> 2 x minimum 1.2TB SAS 10K RPM or better with support for hardware RAID 0, 1 The drive carrier should have intuitive icon based display along with "DO NOT REMOVE" caution indicator that gets activated automatically in order to avoid dataloss/downtime due to wrong drive removal.
6.	Controller	<ul style="list-style-type: none"> PCIe 3.0 based 12Gb/s SAS Raid Controller with RAID 0/1/1+0/5/50/6/60/1 Advanced Data Mirroring/10 Advanced Data Mirroring (onboard or on a PCI Express slot) Storage controller should support Secure encryption/data at rest Encryption
6.	Graphics controller	Integrated Graphics with at least 16MB Video Memory.
7.	Network interface (Ethernet)	<ul style="list-style-type: none"> Atleast 2 x 1Gbps ports with Pre-boot Execution Environment (PXE) boot capability (including CAT6 cable for connecting to switch)
8.	Cluster Interconnect	Refer – "C. Cluster Interconnect"
9.	Ports	Minimum 3 USB 3.0 or higher
10.	Server management	<ul style="list-style-type: none"> OEM server management suite, Integrated remote management controller with dedicated 1GbE with KVM and Media over LAN features. Must include any licenses, if required for using these features.

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		<ul style="list-style-type: none"> It should be able to automate management tasks and automated firmware updates. A LED panel to display system ID, status information, and system error messages.
11.	Power supplies	Redundant and Hot Pluggable, Platinum or better certified redundant power supply along with the required Power cables and connectors. Low halogen power supplies with minimum 94% efficiency
12.	Cooling	Hot plug and redundant fans.
13.	Form Factor	1U or better.
14.	System Security	<ul style="list-style-type: none"> UEFI Secure Boot and Secure Start support Security feature to ensure servers do not execute compromised firmware code FIPS 140-2 validation Support for Commercial National Security Algorithms (CNSA) Common Criteria certification Configurable for PCI DSS compliance Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser Tamper-free updates - components digitally signed and verified Secure Recovery - recover critical firmware to known good state on detection of compromised firmware Ability to rollback firmware Secure erase of NAND/User data TPM (Trusted Platform Module) 1.2 TPM (Trusted Platform Module) 2.0 Chassis Intrusion detection
15.	Secure Encryption	<ul style="list-style-type: none"> System should support Encryption of the data (Data at rest) on both the internal storage and cache module of the array controllers using encryption keys. Should

		support local key management for single server and remote key management for central management for enterprise-wide data encryption deployment.
16.	Provisioning	<ul style="list-style-type: none"> Should support tool to provision server using RESTful API to discover and deploy servers at scale Provision one to many servers using own scripts to discover and deploy with Scripting Tool (STK)
17.	Firmware security	<ul style="list-style-type: none"> 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. This feature should be immutable 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
18.	Cloud Enabled Monitoring and Analytics	<ul style="list-style-type: none"> Offered servers shall have cloud enabled monitoring and analytics engine for proactive management. Cloud Enabled Monitoring and analytics engine shall have capability to provide following: <ul style="list-style-type: none"> Providing Firmware upgrade and patch upgrade recommendations proactively. Providing power and support entitlement status. Recommendations to eliminate performance bottlenecks and critical events, based on Analytics engine having capability of proactive recommendation for arresting the issues / problems.
19.	Monitoring, Analytics, and Performance	<ul style="list-style-type: none"> Should have continuous, proactive health monitoring and recording of required system parameters as well as diagnostic telemetry data on a 24x7 basis. Should have monitoring & analytics feature for the offered server/chassis along with its sub-components

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		to predict, prevent, and auto-resolve problems and by providing automating case creation and log file submission for the problems that can't be auto resolved. <ul style="list-style-type: none">Should help simplify the infrastructure management plan by predicting capacity, performance and bandwidth needs.
20.	Warranty	<ul style="list-style-type: none">05 years NBD OEM comprehensive onsite warranty with back-to-back OEM support. The OEM should have service setup in India.Physical on-site visit by technical experts of OEM for maintenance and technical support whenever needed.24 ×7 call logging by OEM or technical experts of suppliers to resolve various issues by ARIES users.
21.	Bill of Material	The detailed BOM with part codes should be submitted. All the components of the server should be from the same OEM.
22.	Bidder should provide all necessary Cables, Connectors, Components (Ethernet Cables, KVM cables etc.) required for quoted system.	

C. Cluster Interconnect – 01 lot

S.No	Items & description
OPTION-I : Interconnect with 25 Gbps Ethernet Switch	
1.	All the Compute nodes & Master node shall be supplied with 2 × 25 Gbps Ethernet ports Adapter [Small Form-factor Pluggable (SFP28) ports with modules for connecting to switch]
2.	1 X 18 Port or higher 25Gbps Ethernet switch with 10 no's of SFP28 cables
3.	Bidder should provide all necessary Cables, Connectors, Components (Ethernet Cables, SFP28 Cables, etc.) required along with the rack mounting kit. for quoted system.
OPTION-II : Infiniband Switch (IB) based Interconnect	
1.	All the Compute nodes & Master node shall be supplied with 1 x Infiniband HDR100 HCA card and appropriate Adapter.

2.	100 Gbps 40 port HDR Infiniband interconnect switches with redundant power supply
3.	Appropriate length & number of IB cables, connectors, etc. to be provided as per requirement along with the rack mounting kit.
4.	Any other required accessories as per requirement of the above mentioned configuration of master and compute node.

NOTE: The Bidder has to quote Head and Compute Nodes both with (a) OPTION-I and (b) OPTION-II, and ARIES at its discretion and fund availability will decide which option to select and accordingly L1 will be decided on the basic rate.

D. Deliverable items – 01 lot

S.No	Items & description
1.	1U or better rack mountable 18.5" LCD Monitor console, with integrated Keyboard (touch pad, if any) and Mouse alongwith all accessories
2.	16 Port or higher KVM over IP Switch (USB based) with all required Cables & Accessories for individual node monitoring facilities.
3.	1 x 24-Port Gigabit Ethernet Switch with 16 no's of appropriate length CAT6 cables
4.	Any other required accessories as per requirement of the above mentioned configuration of master and compute node.

E. Other deliverable items – 01 lot

1.	<p>A 42U rack with the following minimum specifications:</p> <ul style="list-style-type: none"> • Should have tough and transparent glass fitted front door with Lock and key Rear perforated door with locks, Openable side panels with locks, Castor wheels with brakes • Should have sufficient racks to accommodate the supplied hardware's • Should have sufficient no of compatible PDUs, including ports required for redundant power supply along with MCB, and redundant cooling fans • Should be supplied with compatible railing kit, Cable manager, Cable route, Earthing copper strip with insulators, and other accessories required for proper racking, stacking, and cabling of the supplied hardware. <p>(NOTE: Unit Rate for the offered 42U rack with the above specifications must also be quoted separately as an OPTIONAL ITEM and this element will not be considered while deciding L1.)</p>
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F. Open-source software stacks – 01 lot

S.No	Items & description
1.	Compilers: GNU Compiler (C, C++ and Fortran)
2.	Cluster Monitoring Tools: <ol style="list-style-type: none"> Software for monitoring the cluster nodes and raising alerts in case of failure of hardware components. Software shall have support for SNMP v1/v2/v3 Alerts shall be raised via e-mails in case threshold breaches Ability to have custom Dashboards for continuous monitoring Software shall be installable on a separate PC/Server that will be provided by ARIES
3.	Job scheduler: Open source
4.	Compatible latest OFED drivers, OpenMPI, MPICH2, MVAPICH and open source/free libraries
5.	Includes Python implementation that will run on the compute partition with optimized MPI4Py, NumPy, and SciPy libraries.

[2] SPECIAL TECHNICAL TERMS AND CONDITIONS

i. Warranty:

- The item/s covered under this tender shall be subject to a warranty for trouble free performance, workmanship, material etc., fulfilling all the specifications mentioned in this tender for minimum five (05) years from the date of acceptance and commissioning, unless the standard OEM's warranty period is longer in which case the longer period shall apply.
- The Contractor warrants that the Goods furnished under the Contract conform to the technical specifications, description and standards specified in the Contract, and are new and unused, and free from defects in design, workmanship and/or materials.
- If any defect is found in the material, workmanship or performance during the warranty period the same may either be repaired/replaced by the supplier as the case may be free of charge. The warranty period for replacement of parts or repair work shall be same as above.
- During the warranty period, contractor will have to undertake comprehensive

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maintenance of the entire hardware, hardware components, equipment, software support and accessories supplied by the bidder at the place of installation of the system.

(e) All warranty and support must be provided by the OEM or by the OEM approved agents only.

- ii. The bidder must quote for all the items required to complete the installations, commissioning etc. as per the Tender requirement.
- iii. The quantity mentioned for the items mentioned in this tender may be increased or decreased at the discretion of ARIES at the time of release of the Purchase Order (PO).
- iv. Servers and storage should be provided from the same OEM for better interoperability, integration, management and support.
- v. The components of the server/chassis and management/monitoring software must be from OEM and it is preferred that they are from same OEM. The supplier warrants that all the goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the contract.
- vi. At the time of installation, if it is found that some additional hardware or software items are required to meet the operational requirement of the configuration, but not included in the bidder's original list of deliverables, the bidder shall supply such items to ensure the completeness of the configuration at no extra cost.
- vii. All Network/Interconnect cabling must be structured and adhere to ANSI/TIA – 568 standard.
- viii. All hardware should be installed with recent stable version of firmware.
- ix. Entire installation should be done at the proposed site only. Request for remote access and installation/fine tuning will not be entertained during installation period.
- x. The offered system design must be scalable to support future expansions, and also adding further nodes can be done with ease.
- xi. All the equipment must be compatible with Indian electrical standards/codes.
- xii. All the supplied items must be new and no refurbished or used items are allowed.
- xiii. High Performance Linpack (HPL) linear algebra matrix multiplication program (open-source) shall be executed by the bidder to evaluate the system floating point operation per second (FLOP ratings). And the bidder has to demonstrate the HPL efficiency greater than 70%.
- xiv. The bidder to ensure that the hardware and software components are compatible with each other, and provide necessary cables/connectors and other accessories necessary for connecting/mounting the supplied items/components.



- xv. Bidder should configure in such a way that each of the server nodes should be individually serviceable without shutting down the other server nodes.
- xvi. Bidder shall provide necessary scripts for scheduling jobs, monitoring etc.
- xvii. Documentation and Manuals of all systems to be supplied. The supplied documentation must contains (but not limited to) the documents related to (a) User account Creation/Deletion/Modification, (b) Bringing up and shutting down the system, (c) Disk, health status monitoring of Master/IO nodes and storage, (d) Basic troubleshooting, and (e) Step by step installation guide for node configuration from scratch.
- xviii. Bidder will be responsible to protect data during any upgrades of firmware/OS.

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ANNEXURE-1

**Original Equipment Manufacturer (OEM)'s
Authorization & Support Form
(TO BE SUBMITTED AS A PART OF TECHNICAL BID)**

To
The Director
Aryabhata Research Institute of observational sciences (ARIES),
Manora Peak, Tallital Sub PO,
Nainital 263001, Uttarakhand, INDIA

Sub: SITC of a small HPC Cluster system at ARIES

Tender Ref. No. _____

Tender ID: _____

Dear Sir,

We, who are established and reputed manufacturers/ producers of _____, having factories/ development facilities at _____ (address of factory/facility) with presence in India since last 05 years, do hereby authorize M/s. _____ (Name and address of Bidder/Partner) to submit their Bid, as the Bidder/Consortium Partner, with our products/solutions as listed below for ARIES HPC requirement in their bid and enter into the contract agreement with ARIES in case of award, against ARIES's above referred Tender.

We hereby extend our warranty and support for the solution, products and services offered by the above firm against this Bid invitation. We would be responsible for expeditiously providing all spares and maintenance support and for providing replacements, repairs, updates, patches, security updates, bug fixes, etc., for our aforesaid products as required in this tender/RFP for the entire period of contract between ARIES and M/s. _____ (Name and address of Bidder) and throughout the period of warranty and support as required in this Tender.

We confirm that our above mentioned products/solutions/modules meet all the technical & functional requirements as specified in the Tender and the products/solutions/modules quoted in the bid submitted by M/s. _____ (Name and address of Bidder) are of latest version / specification, are not at end of life cycle, are not at end of support, are not due for end of sale. We hereby also confirm that the parts supplied will not become obsolete within five (05) years of installation & commissioning. And we hereby extend full hardware and software supports either at our own or through the authorized partner M/s. _____ (Name and address of Bidder).

We duly authorize M/s. _____ (Name and address of Bidder) in fulfilling all Installations, Testing, Commissioning, Technical Support and Maintenance obligations, etc., required under the contract for our offered product.

We also assure you that we _____ (Name and address of the OEM) indemnify ARIES against any third party claims of infringement of patents, trademarks arising from the use of the above products (software/ hardware/ other) for the entire period of contract under the above referred Tender.

We hereby declare that we are not insolvent, in receivership, bankrupt or being wound, our affairs are not being administered by a court or a judicial officer, our business activities have not been suspended and we are not the subject of legal proceedings for any of the foregoing.

Yours faithfully,

Name of the Authorized Signatory of OEM: _____

In the capacity of: _____

Signature & Seal _____

Date:

Place:

Note:

- This letter of authority/form should be on the letterhead of the OEM and should be signed by an authorized person of the OEM who is the competent authority.
- This form has to be provided by the OEM's for each of the products proposed by the bidder in its bid against the RFP.
- It is expected that the bidder shall submit this form in the format as given above. However, changes in the language of ANNEXURE-I "Original Equipment Manufacturer (OEM)'s Authorization and Support Form" may be considered if the same is submitted without diluting the overall intent and requirements as asked for in this Form.

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Registrar
ARIES, Manora Peak
Nainital

ANNEXURE-II

**Certificate for any Direct Contract Agreement of the Bidder with ARIES not having been
terminated in last five (5) years**

(TO BE SUBMITTED AS A PART OF TECHNICAL BID)

To

The Director

Aryabhata Research Institute of observational sciences (ARIES),

Manora Peak, Tallital Sub PO,

Nainital 263001, Uttarakhand, INDIA

Sub: SITC of a small HPC Cluster system at ARIES

Tender Ref. No. _____

Tender ID: _____

Dear Sir,

Certificate

I / We(Name of the Bidder) hereby confirm that any Contract awarded
directly or as a partner to a consortium, with ARIES has not been terminated in last five (5) years from
date of submission of bids against this RFP.

Yours faithfully,

(Signature & Seal of the Authorized Signatory of Bidder)

Name and Designation of Authorized Signatory:

Name of Firm/Company:

Place:

Date:

ANNEXURE-III

**Self-Certificate for not being Under Declaration of Ineligibility for Corrupt or Fraudulent
Practices or Blacklisted or Debarred
(TO BE SUBMITTED AS A PART OF TECHNICAL BID)**

To
The Director
Aryabhatta Research Institute of observational sciences (ARIES),
Manora Peak, Tallital Sub PO,
Nainital 263001, Uttarakhand, INDIA

Sub: SITC of a small HPC Cluster system at ARIES

Tender Ref. No. _____

Tender ID: _____

Dear Sir,

Certificate

I / We hereby confirm that our firm has not been under declaration of ineligibility for corrupt or fraudulent practices or blacklisted or debarred in last five (05) years by any Department / Agency / PSU/ Organization of the Government of India or any Central or State Government in India for non-satisfactory past performance, corrupt, fraudulent or any other unethical business practices.

Yours faithfully,

(Signature & Seal of the Authorized Signatory of Bidder)

Name and Designation of Authorized Signatory:

Name of Firm/Company:

Place:

Date:

ANNEXURE-IV

Malicious Code Certificate

(TO BE SUBMITTED AS A PART OF TECHNICAL BID)

To

The Director

Aryabhata Research Institute of observational sciences (ARIES),
Manora Peak, Tallital Sub PO, Nainital 263001, Uttarakhand, INDIA

Sub: SITC of a small HPC Cluster system at ARIES

Tender Ref. No. _____

Tender ID: _____

Dear Sir,

Certificate

- (a) This is to certify that the Hardware and the Software being offered, as part of the contract, does not contain Embedded Malicious code that would activate procedures to :-
- (i) Inhibit the desires and designed function of the equipment
 - (ii) Cause physical damage to the user or equipment during the exploitation.
 - (iii) Tap information resident or transient in the equipment/network.
- (b) We are fully aware of the fact that our company will be considered to be in breach of the procurement contract, in case physical damage, loss of information or infringements related to copyright and Intellectual Property Right (IPRs) are caused due to activation of any such malicious code in embedded software.

Yours faithfully,

(Signature & Seal of the Authorized Signatory of Bidder)

Name and Designation of Authorized Signatory:

Name of Firm/Company:

Place:

Date:

[Handwritten Signature]

ANNEXURE-V

TENDER ACCEPTANCE LETTER

(TO BE SUBMITTED AS A PART OF TECHNICAL BID)

To

The Director

Aryabhata Research Institute of observational sciences (ARIES),
Manora Peak, Tallital Sub PO, Nainital 263001, Uttarakhand, INDIA

Sub: SITC of a small HPC Cluster system at ARIES

Tender Ref. No. _____

Tender ID: _____

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned Tender/Work' from the web site(s) namely: _____ as per your advertisement, given in the above mentioned website(s).
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc. .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organizations too have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.
6. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy



Manora Peak, Nainital-263001, Uttarakhand, India

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Registrar
ARIES, Manora Peak
Nainital



आर्यभट्ट प्रेक्षण विज्ञान शोध संस्थान
Aryabhata Research Institute of
Observational Sciences
(An Autonomous Institute under DST, Govt. of India)

including the forfeiture of the full said earnest money deposit absolutely.

Yours faithfully,

(Signature & Seal of the Authorized Signatory of Bidder)

Name and Designation of Authorized Signatory:

Name of Firm/Company:

Place:

Date:

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APIS, Manora Peak
Nainital

ANNEXURE-VI

Format for Self-Certificate for Local Content
(TO BE SUBMITTED AS A PART OF TECHNICAL BID)

To

The Director

Aryabhata Research Institute of observational sciences (ARIES),
Manora Peak, Tallital Sub PO, Nainital 263001, Uttarakhand, INDIA

Sub: Self-Certificate for Local Content

Tender Ref. No. _____

Tender ID: _____

* I / We(Name of the Bidder) hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 50% and come under 'Class-I Local Supplier' Category. As being 'Class-I Local Supplier', we are eligible for Purchase Preference under 'Make in India' Policy vide GoI Order no. No. P-45021/2/2017-PP (BE-II) dated 16 Sept 2020

OR

** I / We(Name of the Bidder) hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 20% but less than 50% and come under 'Class-II Local Supplier' Category.

OR

*** I / We(Name of the Bidder) hereby confirm in respect of quoted item(s) that Local Content is less than 20% and come under 'Non-local supplier' Category.

The details of the location(s) at which the local value addition made is/are as under:

- 1.....
- 2.....
- 3.....

* **Applicable for 'Class-I Local Supplier' Category**

** **Applicable for 'Class-II Local Supplier' Category**

*** **Applicable for 'Non-local supplier' Category**

Yours faithfully,

(Signature & Seal of the Authorized Signatory of Bidder)

Name and Designation of Authorized Signatory:

Name of Firm/Company:

Place:

Date:





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Nainital

ANNEXURE-VII

TECHNICAL DEVIATION-cum-COMPLIANCE SHEET (TO BE SUBMITTED AS A PART OF TECHNICAL BID)

Kindly note that any deviation from the laid down requirements/specifications shall be brought out separately in deviation sheets to be attached in the form of a table with the concerned point/clause of the tender. Failure to comply with this requirement may result in the bid being rejected.

Sl. No	Tender Clause/Point no	Deviation	Remarks (including justification)

NOTE: Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

COMPLIANCE SHEET (Mandatory)

Sl. No	Parameters/Requirements	Agree/Disagree
1.	Supply, installation, testing, integration, configuration, and commissioning of all the required hardware and operating system, open-source software suites, including but not limited to management of HPC, racking and stacking, cluster networking, configuring all nodes, execution and submission of jobs, installation of open source compilers and applications, configuration of environment variables, license utility configuration, cabling etc. as per the requirement.	
2.	The installation shall be executed by the Engineers certified and trained by the OEM for such HPC cluster stack and other peripherals.	
3.	Training will be provided as per the Tender requirement	
4.	Warranty supports will be provided as per the Tender requirement	
5.	Complying to all the points mentioned in the Technical specifications in Table T.[1] of the tender	
6.	Agreeing to all the clauses (i) to (xviii) of T.[2] of the tender.	




Item Rate Book

Tender Inviting Authority: Aryabhata Research Institute of Observational (ARIES), Manora Peak, Nainital

Name of Work: Supply, installation, testing, and commissioning (SITC) of a small High-Performance Computing (HPC) cluster system at ARIES, Nainital, Uttarakhand

Contract No: 05942270815, 05942270729, 05942270723

NAME of the Bidder/ Bidding Firm / Company :

PRICE SCHEDULE

[illegible]

Registered
Arlene Manora Peak
Natalia

[Handwritten signature]

Registrar
ARIES, Manota Post
Nainital.



Item Rate Book

Tender Inviting Authority: Aryabhata Research Institute of Observational (ARIES), Varanasi Peak, Nainital

Name of Work: Supply, installation, testing, and commissioning (SITC) of a small High-Performance Computing (HPC) cluster system at ARIES, Nainital, Uttarakhand

Contract No: 05942270815, 05942270729, 05942270723

Name of the Bidder / Bidding Firm / Company :	
---	--

PRICE SCHEDULE

[This BBO template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for the tender. Bidders are allowed to enter the Bigger Name and Values only.]

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE in Figures To be entered by the Bidder in Rs. p	GST	TOTAL AMOUNT Without Taxes in Rs. p	TOTAL AMOUNT With Taxes	TOTAL AMOUNT in Words									
1	2	4	1 Lot	5	13	15	53	0.00	54	0.00	INR Zero Only	55					
Supply, installation, testing, and commissioning (SITC) of a small High-Performance Computing (HPC) cluster system comprising of two unit Head with storage, three units Compute Nodes, alongwith administrative items one lot, other administrative items of one lot and (specification software stacks) one lot, as per the tender specification mentioned in item III with Cluster microservices as OTTOS-II																	
Total in Figures								0.00		0.00	INR Zero Only						
Quoted Rate in Words								INR Zero Only									


Registrar
ARIES, Varanasi Peak
Nainital





Item Rate Bidding

Tender Inviting Authority: Aryabhata Research Institute of Observational (ARIES), Varanasi, India

Name of Work: Supply, installation, testing, and commissioning (SITC) of a small High-Performance Computing (HPC) cluster system at ARIES, Varanasi, Uttarakhand

Contract No.: 05942270815, 05942270729, 05942270723

Name of the Bidder/Bidding Firm / Company :

PRICE SCHEDULE

(The Bidders must not be restricted by the bidder and the same should be specified after filling the respective columns, else the bidder is liable to be rejected for this reason. Bidders are allowed to enter the Bidder Name and Prices only.)

Sl. No.	Item Description	NUMBER 4 Quantity	TEXT 5 Units	NUMBER 6 BASIC RATE in Figures To be entered by the bidder in Rs. P	NUMBER 7 GST	NUMBER 8 TOTAL AMOUNT Without Taxes in Rs. P	NUMBER 9 TOTAL AMOUNT With Taxes	TOTAL AMOUNT in Words	TEXT 10
1	Supply, installation, testing, and commissioning (SITC) of one unit of Compute Node with all accessories as per the tender requirement mentioned at table T11B (NOTE) with Cluster interconnect as OPTIONAL	4	1 Set	13	15	53	54	Zero Only	55
2	Supply, installation, testing, and commissioning (SITC) of one unit of Compute Node with all accessories as per the tender requirement mentioned at table T11B (NOTE) with Cluster interconnect as OPTIONAL	1 Set				0.00	0.00	INR Zero Only	
3	Supply, installation, testing, and commissioning (SITC) of one unit of 42U rack with all accessories as per the tender requirement mentioned at table T11E (NOTE)	1 Unit				0.00	0.00	INR Zero Only	
Total in Figures						0.00	0.00	INR Zero Only	
Quoted Rate in Words								INR Zero Only	

Registered
ARIES, Varanasi, India
Annual

Signature