

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
2A & B, RAJA S.C.MULLICK ROAD
JADAVPUR, KOLKATA -700032

TENDER NOTICE NO. DST/SERB/SP/AD/13/27 dated 21.06.2013

Sealed tenders in two bids system (Technical Bid & Financial Bid) are invited from bonafide, resourceful and eligible manufacturers/exclusive distributors for "High Performance Computing Cluster (HPCC)" to be procured from the DST – SERB Project.

Part - I (Technical Bid) of the tender should contain technical details and commercial terms and conditions and Part-II (Price Bid) should indicate group-wise price as mentioned in the Technical Bid where applicable. The Technical Bid and Price bid are to be submitted in two separately sealed and super scribed with 'High Performance Computing Cluster Tender' Tender Notice No., Due date and time of opening envelopes distinctly marked accordingly and both to be put inside another envelope, which should be sealed and superscribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads.

Complete tender should reach the office of the Department of Spectroscopy, Indian Association for the Cultivation of Science, 2A & B Raja S. C. Mullick Road, Jadavpur, Kolkata-700032 on or before scheduled date & time specified below.

Tender Notice No.	DST/SERB/SP/AD/13/27 dated 21.06.2013
Last date and time of submitting tender	July 17, 2013 at 2:00 p.m.
Pre-bid meeting to discuss technical specifications	July 10, 2013 at 3:00 p.m.
Date and time of opening tender	July 17, 2013 at 3:00 p.m.
Place of opening tender	I.A.C.S., Kolkata
Contact	Email: spad@iacs.res.in Tel: +91-33- 2473 4971 (ext 2105)

The technical bids will be opened first to evaluate the technical specifications of the equipment thereafter, the **Price bids** of only technically qualified bidders will be opened.

Technical Bid Evaluation: The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team.

Opening of price-bid: The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

Please note that IACS will not provide any accommodation or expenses to any of the bidders for attending opening of technical bid.

1. TECHNICAL BID:

The Technical Bid should contain technical specifications and kept in a separate envelope duly super scribed as "**Technical Bid**" on the outer side of the envelope as detailed above.

The Technical Specifications acceptable for the '**High Performance Computing Cluster**' are as follows:

A). 1 x Master Node cum Storage with following specifications-

Processor: 2 x Intel® Xeon® processor Sandy Bridge 8C E5-2670 2.6G 20M 8GT/s QPI

Chipset: Intel® C602 chipset; QPI up to 8.0GT/s

Memory: 64 GB DDR3-1600 ECC RDIMM (Max Up to 512GB)

Storage: 12 TB Enterprise SATA HDD configured as hardware Raid, required hardware raid controller, supports 0,1,5, 6 and 10 with battery backup unit. The box should be expandable to support maximum 32 TB storage.

Optical Drive: DVD, R/W.

Ethernet: Dual Gigabit Ethernet onboard with suitable cable(s).

Chassis: Rack Mountable chassis with sliding rail-kits.

Graphics: Graphics integrated.

Management: IPMI 2.0 compliant with dedicated port. Supports KVM over LAN and Virtual Media redirection.

Exp Slots: 3x PCI-E 3.0 x16, 3x PCI-E 3.0 x8 (Slot free for future upgradability)

Ports: as required.

Power Supply: 700W or more Redundant Power Supplies 80 PLUS, Platinum Level (94%). Documentary Proof is required.

OS: Open Source Enterprise Linux (CentOS preferred).

Warranty: 3-year Parts, 3-year labour, 3-year on site Supports

B). 8 x Compute/Slave Nodes with following specifications

Processor: 2 x Intel® Xeon® processor Sandy Bridge 8C E5-2670 2.6G 20M 8GT/s QPI

Memory: 64 GB DDR3-1600 ECC RDIMM (4 GB per core) (Max Up to 256GB)

Storage: 1 TB Enterprise SATA, SATA 2.0 & 3.0 with RAID 0, 1, 5, 10 Support, 3x Hot-swap SATA Drive Bays.

Gigabit Ethernet: Dual Port Gigabit Ethernet onboard with suitable cable(s).

Chassis: 0.5U effective form factor (4 independent compute nodes share single 2U chassis and power supply). A compact form factor is preferred so to accommodate within small area due to space crunch in the server room.

Graphics: Graphics integrated.

Management: IPMI 2.0 compliant with dedicated port. Supports KVM over LAN and Virtual Media redirection

Ports: As required.

Expansion Slots: 1 x X16 PCI-E (low profile free) for future upgradability.

Power Supply: 1600W or more Redundant Power Supplies 80 PLUS, Platinum Level (94%). Documentary Proof is required.

OS: Open Source Enterprise Linux (CentOS preferred).

Warranty: 3-year Parts, 3-year labour, 3-year on site Supports

C). SMP Nodes

Processor: 4 x AMD Opteron Abu Dhabi 16C 6376 2.3G 16M 6400MT
(Total 64 cores)

Chipset: AMD SR5690/SR5670/SP5100 Chipset

RAM: 16 x 8 GB DDR 3 ECC Reg 1600 (Total 128 GB) (MAX 1 TB Support)

Raid: AMD SP5100 (RAID 0, 1, 10)

Drives: 1 x 2 TB ENT SATA 7.2 K RPM 3.5" Hot Swappable

IPMI: Integrated IPMI 2.0 with KVM and Dedicated LAN

DVD: Slim DVD ROM Drive

Exp. Slot: 2x PCI-e Gen 2.0 x16 slot, 1x PCI-e Gen 2.0 x8 slot.

Chassis: 2U Rack Mount with 6x Hot-swap SATA Drive Bays, 1400W High-efficiency Gold Level Redundant Power Supplies. Documentary Proof required.

OS: Open Source Enterprise Linux (CentOS preferred).

Warranty: 3-year Parts, 3-year labour, 3-year on site Supports

D). Gigabit Switch with following specifications: 24 Port Gigabit Ethernet Switch with required no's of cables, 1U Rack Mountable

E). UPS & Power: - APC UPS 10 KVA Online. Battery Bank with 1/2 Hr backup.

F). KVM: 16 Port USB KVM Switch with 16 cables.

G). Power, Heat & Cooling: - . Power consumption and heat dissipation estimate for the total cluster should be mentioned clearly.

H). Warranty: - Three years on-site warranty for all components.

User List: The supplier should provide a list of current users (with contact no, Email address etc) for the quoted item in India.

Service facility: Trained technicians should install the instrument and ensure it is operating correctly and within specifications. User training at site should also be provided. Supplier should mention their details of service setup that are responsible for after sales support.

2. PRICE BID:

The financial bid indicating (item-wise) price for the item(s) mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as "**PRICE BID**" on the outer cover of the envelope as already detailed above. The price bids of only technically qualified bidders will be opened and they will be intimated the date and time of opening of price bids at their email id-(s). Rest of the bids will stand rejected.

PRICE: Price to be quoted on CIF Kolkata.

BID SECURITY:

1. The financial bid should be super scribed as "PRICE BID" on the outer cover of the envelope.
2. An Account Payee Demand Draft/ Pay Order for **Rs. 1,50,000/-** (Rupees One Lakh Fifty Thousand only) drawn in favour of "**Indian Association for the Cultivation of Science**" is to be furnished along with Technical Bid as Bid Security money (or EMD). Bidders registered with the Central Purchase Organizations, National Small Industries Corporation etc. may be exempted from paying EMD subject to their submission of a copy of valid registration certificate with their Technical Bids, failing which their bids will be rejected.
3. The Demand Draft/ Pay Order for the Bid-Security money should have at least 45 (forty five) days validity period after the opening of the Bids.
4. In case of non-award of the work, the Bid Security money would be returned to the bidders.

PERFORMANCE SECURITY:

1. An Account Payee Demand of an amount of 10% of the order value in the name of "**Indian Association for the Cultivation of Science**" is to be furnished by the

successful bidder to be awarded the contract, as “Performance Security” money.

2. Performance Security should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier including warranty obligations.

3. Bid Security would be refunded to the successful bidder on receipt of Performance Security.

GENERAL INSTRUCTIONS:

1. Vendor Eligibility: The bids must be submitted by OEMs or OEM supported single vendors only with original authorization certificates from the OEMs. Vendors should have proven experience in setting up a HPCC of minimum 50 TFLOPS in the last three years in India and a minimum of 3 installation of atleast 1 TFLOPS in Kolkata Region. A brief proof for such experience (copies of orders/installation certificate) should be included in the technical bid. All the three materials namely the Master, Slave nodes and SMP (A, B and C in the Technical specifications) have to be quoted by a single vendor. Part Quotation by a vendor is not admissible as future warranty and maintenance are difficult in the cases of fragment purchases. The OEM/OEM supported vendor should have their own service centre in Kolkata with technical knowhow to troubleshoot HPCC requirements. Sub - leasing of service/technical support by OEMs or OEM supported vendors is not admissible. The response time should not be more that 24 hours/next working day.

2. Submitting Tender: The Tender must contain materials related to this specifications and should not contain materials that can overtly or covertly try to canvass for the vendor. The vendors are allowed to deviate from the specifications given below only when such deviations are demonstrated to be technically superior. Additional features in the quoted items which are better than those in the indent - may be highlighted. The technical bid should not have any mention of pricing. The commercial bid should have the pricing for each option separately. Prices should be inclusive all charges (taxes/duties as applicable, shipping charges, delivery at site, installation etc.) with clearly indicated break-ups. Fax, e-mail Tender will not be accepted. Duplicate Bid document must be submitted in Separate closed cover.

3. Installation and Commissioning: Free of cost at IACS, Kolkata. The

vendors are required to give an estimate of the time required for installation, fine-tuning of the cluster and hand-holding/training of the principal users in the technical bid. The vendor shall be responsible for setting up of High Performance Linux Cluster using Enterprise Linux OS or equivalent (to be provided by vendor). It will be highly desirable if the vendor has proven capability to install some commonly used quantum chemistry programs like Gaussian, ADF, Gamess, Polyrate, NWChem, Molpro, DeMon2K, NAMD, VASP, Quantum Espresso. Parallelized installation of quantum chemistry codes like Gaussian 09 TCP Linda is highly desirable.

iv) Training: Free training on operation, maintenance and troubleshooting of the whole HPCC Solution should be imparted to at least 2 persons for a period of two weeks at the site of installation.

Compliance List: The vendor must submit a table indicating the compliance of the features of the model of the components being quoted with those given in the indent. In case of non-compliance against a particular item, the vendor should justify that.

Post-sale service: The vendor must submit the names of the service engineers employed by them who are competent to serve the HPCC installation along with their contact details in India.

4. Tender updates: Prospective bidders may please refer to our website <http://www.iacs.res.in>, occasionally for any update on the tender which may appear from time to time either in respect of pre-bid meeting or otherwise.

5. Incomplete & conditional tenders and tenders received after the due date will be summarily rejected without assigning any reasons thereof. "High Performance Computing Cluster (HPCC)" should clearly be written on the envelope.

6. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the Institute website. Prospective bidders are advised to occasionally visit the website (www.iacs.res.in/tender) for any amendment.

7. **Payment:** 100% against delivery and successful installation subject to submission of performance guarantee.

8. **Warranty:** Minimum 5 years.

9. **Installation/Demonstration/Application Training at site:** Free of cost by the supplier.

10. **Service facility:** Supplier should mention their details of service setup and Manpower in Kolkata who are responsible for after sales support. Response time should be within 24 hours.

11. **Validity of tender:** Tender submitted shall remain valid at least for three months from the date of opening of the tender. Validity beyond four months from the date of opening of the tender shall be by mutual consent.

12. The tender should accompany a compliance chart.

13. The rate should be inclusive of all taxes, transportation etc. Nothing extra will be paid in addition to the quoted rate.

14. The model number, make, and a printed literature of the product shall be submitted positively.

15. Proposed delivery schedule should be mentioned clearly.

16. Manufacturers/exclusive distributors/vendors should have history of supplying this type of instrument to this or other Scientific Organization.

17. Authorized Dealership Certificate is must in case of principal manufacturing company is not quoting directly.

18. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.

19. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of technical bids will be the following working day at the appointed time.

20. In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.

17. For any clarification regarding technical specifications etc. please send your queries to "Dr. Ayan Datta" at spad@iacs.res.in.

21 The Institute reserves the right to reject any or all of the tenders received without assigning any reason thereof.

Registrar