Savitribai Phule Pune University Ganeshkhind, Pune – 411 007

REF.: BIOIN/2014 -15/ 483

16th December, 2014

TENDER NOTICE

To.

Whom so ever it may concern

Dear Sir,

Bioinformatics Centre, Savitribai Phule Pune University would like to procure & install the High Performance Computing Cluster as per the following Technical Specifications. I therefore request you to send your sealed tender clearly indicating about the terms and conditions and send to undersigned on or before —5th January, 2015 before 3.00 pm.

• Item :

SUPPLY, INSTALLATION & COMMISSIONING OF

HIGH PERFORMANCE COMPUTING CLUSTER

Tender Enquiry No. :

BIOIN/2014-15/483

Last Date & Time

5th January, 2015 before 3.00 pm.

Opening of Technical Bids :

5th January, 2015 before 3.30 pm. In the Bioinformatics Centre,

Savitribai Phule Pune University, Pune 7.

Prospective bidders may submit their offers to The Director, Bioinformatics Centre, Savitribai Phule Pune University, Pune: 411 007.

The Bidders are requested to give detailed tender in two Bids i.e.

Part - 1: Technical Bid.

Part- 2: Commercial Bid.

Specification for the High Performance Computing Cluster

Head Node: Quantity 1

Processor: 2x Intel Xeon E5-2630V2 (2.6GHz/ 6-Core /15MB /80W/ 7.2GT/s QPI) Memory: 64GB DDR3 Reg. ECC 1600MHz with support for total 16 DIMM sockets Internal Storage: 4x 2TB 3.5" SATA Enterprise class 7.2K rpm (RAW) with support for at least 8 HDD bays

Raid Card: 1x 8-Port RAID Card supporting RAID 0, 1, 5 and 6

I/O Ports: 2x Gigabit Ethernet Port and 1x Dedicated LAN for system management,

2x USB ports and 1x VGA

Internal DVD Writer

Power Supply: Redundant Platinum Level (94%) Power Supplies

Rack mount Rail Kit

Warranty: 3 years on-site comprehensive warranty

GPU Compute Node: Quantity 2

Processor: 2x Intel Xeon E5-2630V2 (2.6GHz/ 6-Core /15MB /80W/ 7.2GT/s QPI)
Memory: 64GB DDR3 Reg. ECC 1600MHz with support for total 16 DIMM sockets
Internal Storage: 1x 1TB SATA Enterprise class 7.2K rpm with support for at least 4
HDD bays

GPU: 2x NVIDIA Kepler K20 GPU with support for adding at least one more K20 in future; Necessary slot, power and cooling for all 3 cards must be available.

I/O Ports: 2x Gigabit Ethernet Port and 1x Dedicated LAN for system management, 2x USB ports and 1x VGA

Power Supply: Redundant Platinum Level (94%) Power Supplies

Rack mount Rail Kit

Warranty: 3 years on-site comprehensive warranty

High Memory GPU Compute Node: Quantity 1

Processor: 2x Intel Xeon E5-2630V2 (2.6GHz/ 6-Core /15MB /80W/ 7.2GT/s QPI)

Memory: 768GB DDR3 Reg. ECC 1600MHz

Internal Storage: 1x 1TB 3.5" SATA Enterprise class 7.2K rpm with support for at

least 8 HDD bays

GPU: 1x NVIDIA Kepler K20 GPU with support for adding at least one more K20 in future; Necessary slot, power and cooling for both the cards must be available. I/O Ports: 2x Gigabit Ethernet Port and 1x Dedicated LAN for system management, 2x USB ports and 1x VGA

Power Supply: Redundant Platinum Level (94%) Power Supplies

Rack mount Rail Kit

Warranty: 3 years on-site comprehensive warranty

Interconnect: Gigabit Ethernet Switch

16-Port Gigabit Ethernet Switch with required number of cables to connect all nodes

Cluster Management software – Perpetual License with 5 years support Operating System & Scheduler – Open Source Cent OS Linux & open source Scheduler

Desired Features of the Cluster Management software:

- The underlying Linux distribution must be Cent OS operating system
- It must be possible to do a cluster installation in graphical mode, not requiring execution of command-line commands.
- GPU units and GPUs should be manageable through the cluster management interface. All GPU metrics available from the NVIDIA Tesla GPU series must be sampled and available for visualization.
- All common management functionality (at least node control, node provisioning, monitoring, alarm setting, parallel shell, queuing system configuration, queue job control, user management, role-based authentication) must be available through the same single GUI and command line-based cluster management shell.
- The configuration of the cluster, such as network settings, hostname, node names, etc. should be easy to change after the installation.

A flexible cluster health checking mechanism should be provided that checks
the health of nodes just before a job is submitted to these nodes by the
queuing system. Functionality should at least include health checks of CPU's,
memory, hard disks, and power supplies

Installation, Warranty and Training:

- The vendor shall install and configure all required hardware and cluster management software, including but not limited to racking and stacking, cluster networking, configuring all nodes, installation of open source compilers and applications, configuration of environment variables and license utility configuration.
- As part of acceptance, the bidder should install software (NAMD, GROMACS) and demonstrate its working on GPU by running some sample programs.
- A half-a-day admin and user training on the cluster usage and administration must be provided. Charges, if any, may be included.

General Conditions

- The solution occupying less space, consuming less power, requiring less cooling shall be preferred.
- Total power consumption, electrical requirements and air conditioning requirement of the cluster should be specified by the vendor.
- Delivery time for the cluster, from the date of issue of PO, should be indicated by the vendor.
- The period of warranty will be for 5 years comprehensive on-site from the date of acceptance.

Terms and conditions

- Mention our reference number & tender for <u>High Performance Computing Cluster</u> on both the envelopes.
- Date of validity should be minimum of 90 days from the date of opening the technical bid
- Bidders should be a registered company, Registration Certificate to be submitted.
- 4. Conditional tender will not be accepted.
- Tender will be rejected in case of even a single correction or overwriting. Only clear and uncorrected tender will be accepted.
- Payment will be made by cross check only after delivery of material and satisfactory installation of the systems.
- Tax will be deducted as per prevailing rule.
- Delivery period should be between 4-6 weeks.
- 9. Rates quoted should be inclusive of all taxes (with tax details) and warranty.
- Proposals of vendors who do not fulfil the criteria or who fail to submit documentary proof would be rejected.
- Please send your tender along with authorise dealers / manufactures Certificate, by only surface mail / by hand to <u>The Director</u>, <u>Bioinformatics Centre</u>, <u>Savitribal</u> <u>Phule Pune University</u>, <u>Ganeshkhind Road</u>, <u>PUNE</u>: 411 007.
- 12. Bioinformatics Centre, Savitribai Phule Pune University will not be responsible, for submission / delivery of quotation at wrong place other than the Office of the

Bioinformatics Centre, Savitribap Phule Pune University, Pune: 411 007 in person or through post/courier Bioinformatics Centre will not be responsible for delayed / late quotations submitted sent by post/courier etc. resulting in disqualification / rejection of any bid.

13. No request for extension of due date will be considered under any circumstances.

14. Two Bid System:

The two bid system should be followed for this tender. In this system the bidder must submit his offer in two separate sealed envelopes. Both the technical and commercial bid envelopes should be sealed and stamped separately and marked as Envelope No. 1 - Technical Bid and Envelop No. 2 - Commercial Bid respectively. The envelopes must be super-scribed with the Tender Reference Number, Due Date and Name of the Vendor and submit to the address given above.

15. Envelope No. 1 shall contain Technical Bid, Compliance report and Earnest Money

Deposit (EMD). The technical offer should not contain any price information.

16. Tenders which are submitted without following the two bid offer system will be rejected.

The technical bid should contain commercial terms with reference to the tender.

- Demand draft / Bank Guarantee for Rs. 50,000/- (Rs. Fifty Thousand only) towards
 Earnest Money Deposit in favour of "The Registrar, Savitribai Phule Pune
 University" and will be obtained from Nationalised / Schedule bank only.
- 19. Duly filled technical bid with proper seal and signature of authorized person should be submitted and the same should accompany with complete specifications, Manufacturer's name, address and relevant Technical Literature / Brochures with warranty Terms conditions and EMD.
- 20. If the bid is for branded make, authorization letter form principals clearly indicating that the vendor is the competent authority to sell and provide services towards the items mentioned in the scope of supply given in this tender.
- 21. Indicate the names of the Indian reputed organizations where you have supply similar equipment and may attach the satisfactory performance report of the equipment from user organization.
- Date of opening of the Technical Bids: 5th January, 2015 at 3.30 pm in the office of The Director, Bioinformatics Centre, Savitribai Phule Pune University, Pune: 411 007.
- 23. The technical bids will be opened in the presence of the Bidders on the specified time and date. Bidders/Agents who have responded to the tender only will be allowed to be present.
- 24. The technical bid will be evaluated to shortlist the eligible bidders. The commercial bids of only the short listed bidders shall be considered for further processing.
- No camera mobiles / mobiles are allowed during tender opening.
- 26. The technical committee will go through the technical aspects of the tender and recommend short listed firms. The recommendation of the technical committee is the final and binding on all parties.
- After the technical evaluation is completed the Director, Bioinformatics Centre shall inform the bidders whose bids have been rejected technically.
- 28. In the event of seeking any clarification form bidders, the bidders are required to furnish only technical clarifications that are asked for. No amendment to commercial bid will be entertained at that stage. In case of bidder fails to quote for a particular item it amounts to non-compliance and hence such bid will not be considered for further evaluation.
- 29. The Director, Bioinformatics Centre will open commercial bids of only the short listed bidders in the presence of the bidders or their authorized representatives who choose to attend the commercial bid opening. The date and time of opening the commercial bid will be intimated only to technically acceptable bidders for the item at a later date. The representative of short listed firms only will be allowed for commercial bid opening.
- 30. Only technically accepted competitive bids will be considered for placing purchase order.
- 31. After arriving at final pricing of individual offers of all the short listed firms, the lowest firm will be awarded with purchase order in the purchase committee.

32. No sub-contracting is allowed with regard to installation, commissioning, training, warranty maintenance and after sales service. This is the sole responsibility of the principals/their authorized agents.

33. The Purchase Committee, Savitribai Phule Pune University reserves the right to accept

the offer in full or in parts or reject summarily or partly.

"INSTRUCTIONS TO BIDDERS:

1. The delivery and installation must be completed within 6 weeks after placement of purchase order. The time is the essence of the contract. It is mandatory for the bidders who respond to this bid to meet these expectations.

2. The supply, installation and commissioning of High Performance Computing Cluster covered by this document is required to be supply and installed at Bioinformataics

Centre, Savitribai Phule Pune University, Pune.

3. The make / brand and name and address of the manufacturer, country of origin, country of shipment and currency in which rates are quoted are to be mentioned.

4. Bioinformatics Centre, Savitribai Phule Pune University will not provide any accommodation/transportation for the engineers / representatives for attending installation, commissioning and demonstration work. It is the absolute responsibility of the principal supplier / Indian agent to make their own arrangements.

5. The authorized person who signs the tender is required to indicate his e-mail ID, mobile

no, and office nos, of easy and faster communication.

6. Bids submitted without EMD will stand rejected. EMD will not be accepted in the form of cash/cheque or any other form other than DD. No interest is payable on EMD.

7. The successful bidder on award of purchase order, must send the order acceptance in

writing, within 7 days of award of order failing which the EMD will be forfeited.

8. Director, Bioinformatics Centre, Savitribai Phule Pune University has appointed its own freight forwarder and custom house agent for all imports. Please note that all the consignments have to be routed through their associates only. The address and contact details will be provided at the time of placing the purchase order.

9. Please note that Savitribai Phule Pune University is exempted from payment of Excise and custom duty.

10. In case of imports the freight & insurance will be paid by Bioinformatics Centre, Savitribai Phule Pune University as the consignment shipped through the Bioinformatics Centres nominated freight forwarder.

11. The equipment to be supplied will be insured by the vendor against all risks of loss or damage from the date of shipment till such time it is delivered at Bioinformatics Centre,

Savitribai Phule Pune University site.

12. Please note that this is an educational institution and hence quote for the Educational discounted price inclusive of all taxes, freight, insurance etc. in Indian Rupees or in foreign currencies on behalf of their principals (CIF Mumbai only)

13. Bidders are requested to submit their tender quotation on their letterhead, (there is no tender format published on the web site etc.)

Savitribai Phule Pune University reserves the right to reject any part or full tender without assigning any reason and shall also not be bound to accept the lowest tender. Savitribai Phule Pune University would not be under any obligation to give any clarifications to the agencies whose bids are rejected.

Director.

Bioinformatics Centre

Compliance Report for purchase <u>High Performance Computing Cluster to be submitted</u> with technical bid.

as per Tender Enquiry Ref. No. Bioin 2015-20/483 16/12/2014

| 6 | Compatible in High Performance Computing Cluster (Yes/No) | Will definitely supply (Yes/No) |
|--|--|--|
| Processor: 2x Intel Xeon E5-2630V2 (2.6GHz/ 6-Core /15MB /80W/ 7.2GT/s QPI) Memory: 64GB DDR3 Reg. ECC 1600MHz with support for total 16 DIMM sockets Internal Storage: 4x 2TB 3.5" SATA Enterprise class 7.2K rpm (RAW) with support for at least 8 HDD bays Raid Card: 1x 8-Port RAID Card supporting RAID 0, 1, 5 and 6 I/O Ports: 2x Gigabit Ethernet Port and 1x Dedicated LAN for system management, 2x USB ports and 1x VGA Internal DVD Writer Power Supply: Redundant Platinum Level (94%) Power Supplies Rack mount Rail Kit Warranty: 3 years on-site comprehensive warranty | | |
| Processor: 2x Intel Xeon E5-2630V2 (2.6GHz/ 6-Core /15MB /80W/ 7.2GT/s QPI) Memory: 64GB DDR3 Reg. ECC 1600MHz with support for total 16 DIMM sockets Internal Storage: 1x 1TB SATA Enterprise class 7.2K rpm with support for at least 4 HDD bays GPU: 2x NVIDIA Kepler K20 GPU with support for adding at least one more K20 in future; Necessary slot, power and cooling for all 3 cards must be available. I/O Ports: 2x Gigabit Ethernet Port and 1x Dedicated LAN for system management, 2x USB ports and 1x VGA Power Supply: Redundant Platinum Level (94%) Power Supplies Rack mount Rail Kit Warranty: 3 years on-site comprehensive warranty High Memory GPU Compute Node: Quantity 1 | | |
| Processor: 2x Intel Xeon E5-2630V2 (2.6GHz/ 6-Core /15MB /80W/ 7.2GT/s QPI) | | |

| | ry: 768GB DDR3 Reg. ECC 1600MHz | |
|--------|---|---|
| | al Storage: 1x 1TB 3.5" SATA Enterprise class 7.2K | |
| | ith support for at least 8 HDD bays | |
| | 1x NVIDIA Kepler K20 GPU with support for adding at | |
| | one more K20 in future; Necessary slot, power and | |
| | g for both the cards must be available. | |
| I/O Po | orts: 2x Gigabit Ethernet Port and 1x Dedicated LAN for | |
| systen | n management, 2x USB ports and 1x VGA | |
| Power | Supply: Redundant Platinum Level (94%) Power | |
| Suppli | | |
| | mount Rail Kit | |
| Warra | nty: 3 years on-site comprehensive warranty | |
| Interc | onnect: Gigabit Ethernet Switch | |
| 16-Po | rt Gigabit Ethernet Switch with required number of | |
| | s to connect all nodes | |
| | er Management software – Perpetual License with 5 | |
| | support | |
| | ating System & Scheduler - Open Source Cent OS | |
| | & open source Scheduler | |
| | a spen course conceans. | |
| Desire | ed Features of the Cluster Management software: | |
| | | |
| | The underlying Linux distribution must be Cent OS | |
| | operating system | |
| | It must be possible to do a cluster installation in | |
| | graphical mode, not requiring execution of command- | |
| | line commands. | |
| 2 | GPU units and GPUs should be manageable through | |
| - 5 | the cluster management interface. All GPU metrics | |
| | available from the NVIDIA Tesla GPU series must be | |
| | sampled and available for visualization. | |
| | All common management functionality (at least node | |
| - | control, node provisioning, monitoring, alarm setting, | |
| | parallel shell, queuing system configuration, queue job | |
| | control, user management, role-based authentication) | |
| | must be available through the same single GUI and | |
| | command line-based cluster management shell. | 1 |
| - | The configuration of the cluster, such as network | |
| - | settings, hostname, node names, etc. should be easy | 1 |
| | to change after the installation. | |
| | A flexible cluster health checking mechanism should | |
| - 2 | | |
| • | | 1 |
| ٠ | be provided that checks the health of nodes just | |
| ٠ | be provided that checks the health of nodes just before a job is submitted to these nodes by the | |
| • | be provided that checks the health of nodes just before a job is submitted to these nodes by the queuing system. Functionality should at least include | |
| ٠ | be provided that checks the health of nodes just before a job is submitted to these nodes by the queuing system. Functionality should at least include health checks of CPU's, memory, hard disks, and | |
| Inetal | be provided that checks the health of nodes just before a job is submitted to these nodes by the queuing system. Functionality should at least include health checks of CPU's, memory, hard disks, and power supplies | |
| | be provided that checks the health of nodes just before a job is submitted to these nodes by the queuing system. Functionality should at least include health checks of CPU's, memory, hard disks, and power supplies lation, Warranty and Training: | |
| | be provided that checks the health of nodes just before a job is submitted to these nodes by the queuing system. Functionality should at least include health checks of CPU's, memory, hard disks, and power supplies lation, Warranty and Training: The vendor shall install and configure all required | |
| | be provided that checks the health of nodes just before a job is submitted to these nodes by the queuing system. Functionality should at least include health checks of CPU's, memory, hard disks, and power supplies lation, Warranty and Training: The vendor shall install and configure all required hardware and cluster management software, including | |
| | be provided that checks the health of nodes just before a job is submitted to these nodes by the queuing system. Functionality should at least include health checks of CPU's, memory, hard disks, and power supplies lation, Warranty and Training: The vendor shall install and configure all required hardware and cluster management software, including but not limited to racking and stacking, cluster | |
| | be provided that checks the health of nodes just before a job is submitted to these nodes by the queuing system. Functionality should at least include health checks of CPU's, memory, hard disks, and power supplies lation, Warranty and Training: The vendor shall install and configure all required hardware and cluster management software, including | |

- As part of acceptance, the bidder should install software (NAMD, GROMACS) and demonstrate its working on GPU by running some sample programs.
- A half-a-day admin and user training on the cluster usage and administration must be provided. Charges, if any, may be included.

| Name | of | the | organ | nizat | ion |
|------|-----|-----|--------|-------|-----|
| | ~ 1 | | OI BAI | ***** | |

Address of the organization:

Contact Person Name and Designation:

Contact Nos. land line and mobile:

Tax Registration Nos.

I agree to all terms and conditions mentioned in the tender document of the Institute.

Seal and signature of the authorized person

Note: Please print above content on your organization letterhead.

Director

Bioinformatics Centre

Savitribai Phule Pune University

Pune - 411 007