

# NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR-788010

No. NITS/PS-601/CCC/AMC of HPC Clusters/18

Date: 08/10 /2018



## NOTICE INVITING TENDER

FOR PROVIDING AMC OF HPC CLUSTERS AT NIT SILCHAR

LAST DATE & TIME OF SUBMISSION : 02/11/2018 up-to 01.00PM

DATE & TIME OF OPENING : 02/11/2018 at 03.30PM





NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR - 788 010

**NOTICE INVITING TENDER**

Sealed tender invited from manufacturer/reputed firms/ vendors/authorised service providers/ authorised HPC (High Performance Computer) supplier for providing the Annual Maintenance Contract (AMC) of HPC at National Institute of Technology, Silchar. The firm shall submit an Earnest Money Deposit (EMD) @2% of the total bid value in the form of Demand Draft in favour of "The Director NIT, Silchar". Payable at Silchar. No Interest shall be paid on EMD at the time of return.

Detailed List of HPC to be covered under AMC is given in (Annexure – A).

Tender documents can be obtained from Purchase Section, NIT Silchar or may be downloaded from our website [www.nits.ac.in](http://www.nits.ac.in) or <http://eprocure.gov.in>. The cost of tender document is Rs.1,000.00 (non-refundable) to be submitted in the form of Demand Draft in favour of The Director NIT Silchar. Payable at Silchar. The last date and time for submission of Tender documents will be 02/11/2018 up-to 01.00 PM and tender will be opened on the same date at 03.30 PM in the office of the S.T.O., NIT SILCHAR.

The offers without Cost of Tender & Earnest Money Deposit (EMD) shall out rightly be rejected.

Director, NIT Silchar reserves the right to extend the date, or cancel the tender, accept or reject any/all tenders at any time.

Tenders are to be sent/submitted in sealed covers addressed to:-

The Faculty-In-Charge, Purchase  
National Institute of Technology, Silchar-788 010 (Assam)  
Email : [purchasecell.nits@gmail.com](mailto:purchasecell.nits@gmail.com)

**REGISTRAR, NIT SILCHAR**



## **1. Eligibility criteria and Mandatory Documents required along with the bid:**

The Bidder must submit the following documents along with the tender.

1. The bidder should have been in the business of HPC sales, service, implementation & integration related activities for at least past 5 (five) years in North East India. Documentary evidence to be furnished.
2. Bidder should have minimum turnover of Rs.4.5lakh in last 03 financial years. Financial statements (Balance Sheet, P&L Statement) for last 03 years to be enclosed
3. PAN Card, Firm Registration, Central Excise Registration, Service Tax Registration, GST Registration Certificates.
4. Up to date Trade License.
5. IT returns for the last 3 years.
6. At least one work order for AMC of HPC from any Govt./Public Organization must be submitted along with the bid.
7. The bidder applying for this tender should be an authorized enterprise business partner and service provider of the OEM. Necessary certificate from the UPS Manufacturer (OEM) should be enclosed. The bidder who will be awarded the work order must furnish the contract copy with OEM.
8. The Bidder must have its own service center in Assam / Silchar for maintenance services along with adequate stores of reserve of replacement spares. Documentary evidence to be furnished.
9. The Bidder should not have been black-listed or debarred from business from any Government/Government agency/Institute/PSU in India for last 7 years. Affidavit to be enclosed
10. Solvency certificate of minimum Rs. 5 Crores from Bank.

## **2. Terms & condition:**

- a) The Annual maintenance contract includes preventive as well as corrective maintenance.
- b) The firm shall depute well qualified & experience service engineer(s) for attending maintenance related complaints.
- c) **Scope:**
  1. Maintenance service shall consist of preventive and corrective maintenance of the HPC(s). In case of any breakdown, all efforts shall be made by the firm of rectify and make the HPC(s) operational at the earliest. Breakdown Maintenance will be carried out in the event of malfunction, which prevent the operation of the system and it includes fault-finding, repair/replacement of defective parts and functional checking. The system shall be set right by the firm within 3(three) working days barring holidays, bandh, road blockade etc. from date of complaint received by the firm.
- a) The replacement of defective parts with good quality & OEM branded parts will be done by the firm as per the mutually agreed terms. Used / repaired parts of any other brand from any other source are not acceptable. AMC shall cover each & every parts of item & replacement of any parts necessary for keeping the HPCs) active & free from any defects/ disturbances.
- b) Firm will supply all the new release / new version / updates of parts free of cost.
- c) In case, item is of proprietary nature, firm should enclose certificate & other documents as a proof in this context.

## **3. Validity:**

- a. The contract will be initially for 1(one) year from the date of award and may be renewed for further 1(one) year with the consent of both parties and based on satisfactory services provided by the firm.
- b. This Agreement may also be terminated by at any time if the firm fails to rectify major pending complaints no compensation in this regard will be entertained.

## **4. Payment terms:**

The AMC Charges shall be payable to the service provider in two instalment i.e. Half yearly (six months) payment at the end of each instalment of AMC period after deducting penalties, if any, Half yearly advance payment may be made against Bank Guarantee on equal value at six months payment. TDS, Service tax and any other applicable taxes as per prevailing rates will be deducted before making the payment. If there is any increase / decrease of statutory taxes will be reimbursed accordingly.



**5. Agreement:**

The selected firm shall have to sign an agreement in two sets on non-judicial stamp papers of Rs.100.00 (One hundred) each only containing details of terms & conditions after issue of P.O. to begin AMC. One set will be retained by the NIT Silchar and other set is to be retained by the firm.

**6. Penalty for Failure:**

- a) The firm will ensure 90% uptime in respect of service. The uptime will be completed on calendar month basis in a non-cumulative manner.
- b) The down time penalty charges if not rectified within 3(three) days – Rs.100/- per day penalty shall be imposed & deducted from their bill.

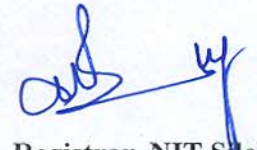
**7. Earnest Money Deposit (E.M.D.):**

EMD@2% in the form of demand draft in favor of “Director National Institute of Technology, Silchar”, payable at Silchar must be deposited along with the quotation without which the quotation will not be honoured and liable to be rejected. The EMD will be refunded to unsuccessful quotationer(s) within a month of finalization of quotation.

**8. Performance Security Deposit:**

The successful firm have to deposit performance security equivalent to 10% of total contract value in the shape of Bank Draft/F.D.R./Bank Guaranty at the time of signing the AMC agreement. The validity of performance security deposit will be 13 months from the date of operation of AMC and the EMD shall be released after receipt of performance security.

9. Tender shall be valid for a period of **6(six) months** sent in a well-sealed envelope super scribes “**Tender for AMC of HPC at NIT Silchar**”
10. The rate shall be quoted both in figure & words and all taxes shall be mentioned separately. Educational Discount if any shall be mentioned.
11. The Director NIT, Silchar reserves the right to accept or cancel any or all quotation without assigning any reason thereof.
12. National Institute of Technology Silchar is not liable for non-receipt of the tender forms in time due to wrong address/ any delivery delay of the mail service provider/ force majeure. Tender documents received after the last date and time for receiving tenders will be summarily rejected.
13. All legal disputes shall be under the jurisdiction of the Silchar Courts of Cachar District in the state of Assam.



**Registrar, NIT Silchar**



**DECLARATION**

I / We hereby declare that no case is pending with the police/ court against the proprietor/ firm/ partner or the company (Agency). Also I /We have not been suspended / blacklisted by any PSU / Government Department / Financial Institution / Court.

**(Signature & seal of the contractor)**

Place:

Date:



## **NO DEVIATION CERTIFICATE**

Notwithstanding anything mentioned in our bid, we hereby accept all the terms and conditions of this tender and we do not have any deviation to this tender enquiry. We hereby undertake and confirm that we have understood the scope of work properly and shall be carried out as mentioned in this tender enquiry.

**(Signature & seal of the contractor)**

Place:

Date:



**BIDDERS DETAILS**

Name of the Contractor /Party/ Firm :

Name of Authorized Representative :

Phone Nos. :

Mobile Nos. :

Fax No. :

E-Mail Address :

Web Site Address ( If Any) :

(Signature & seal of the contractor)

Place:

Date:







## CHECK-LIST (TECHNICAL BID)

### SUMMARY OF COMPLIANCE TO REQUIREMENT OF TENDER

Sl. No.	Description of Requirement	Yes / No / NA	Page No.
1.	Tender Cost Rs.1,000/- (Non-refundable) in the form of Demand Draft in favour of "Director, NIT Silchar" in a separate envelope		
2.	EMD @2% in the form of Demand Draft in favour of "Director, NIT Silchar" in a separate envelope		
3.	Copy of Manufacturer/ Authorized Supplier Certificate/Authorised letter/		
4.	Audited financial statement for the last 3 years		
5.	Copy of the PAN card.		
6.	Copy of GST registration certificate		
7.	Copies of previous work order of similar work with completion certificate		
8.	Declaration certificate		
9.	No Deviation certificate		
10.	Bidder's details		
11.	Technical Specification		
12.	NSIC/SSI Certificate where applicable		
13.	All the pages of tender document have been signed		
14.	Sealed envelope of price bid submitted.		
15.	Complete copy of Techno Commercial Bid submit along with the Price Bid.		

(Signature & seal of the contractor)

Place:

Date:



**NAME OF THE WORK WITH ITEM DETAILS: AMC OF HPC**

Item no.	Description of Articles	<u>Number/Qty. Required</u>
1	<b>Repairing and AMC for HPC Clusters installed in NITS Supercomputing Centre: Hardware only:</b> <ol style="list-style-type: none"> <li>1. Master Node – 1 No.</li> <li>2. Compute Nodes – 12 No's</li> <li>3. GPU Compute Nodes (PHI) – 2 No's</li> <li>4. GPU Compute Nodes (Nvidia) – 2 No's</li> <li>5. Backup/Management Node – 1 No.</li> <li>6. SATA Base Storage – 1 No.</li> <li>7. Primary Interconnect – 1 No.</li> <li>8. Secondly Interconnect – 1 No.</li> <li>9. Cluster Management Network – 1 No.</li> </ol>	2 years

**Technical Specifications of High-Performance Computing (HPC) System**

Technical Specifications of High-Performance Computing (HPC) system with minimum 16-cores master node, 16 compute nodes of which 2-nodes enabled with Intel Xeon Phi & 2-nodes enabled with nVidia GPGPU, 80 TB usable Storage capacity and Interconnects as per the specifications given below:

**1. Master Node: Qty. – 01**

<b>Description:</b>
2 x Intel Xeon E5-2600 series or 2 x AMD Opteron 6300 series, min 2.6GHz, minimum eight cores, with min. specfp_rate2006 of 440
64 GB DDR3, 1600MHz Memory, in balanced configuration
6 x 600GB 15K RPM SAS Disks, Hardware RAID with support for 0,1 and 5
Four Gigabit Ethernet ports with PXE boot capability
One 4x FDR 56Gbps Infini band HCA based on PCI-E Gen-3:- 14 Gbps per lane compatible with the quoted Infini band switch
DVD-RW drive (internal)
IPMI 2.0 or equivalent Support with KVM and Media over LAN features. Must include any licenses, if required for using these features
Redundant and Hot Pluggable power supply
Fully compatible/certified with RHEL5.x, RHEL6.x, SUSE Linux Operating system
2U rack mountable or better form factor
80 Plus or better certified power supply
Power cables of IEC C13 type compatible with the quoted rack
Rack mounting sliding rail kit



**2. Compute Node: Qty. – 12**

<b>Description:</b>
2 x Intel Xeon E5-2600 series or 2 x AMD Opteron 6300 series, min 2.6GHz, minimum eight cores, with min. specfp_rate2006 of 440
64 GB DDR3, 1600MHz Memory, in balanced configuration
2 x 500GB Enterprise SATA HDDs, with support for Hardware RAID 0 & 1
IPMI 2.0 or equivalent Support with KVM and Media over LAN features. Must include any licenses, if required for using these features
Two Gigabit Ethernet ports with PXE boot capability
One 4x FDR 56Gbps Infini band HCA based on PCI- E Gen-3:- 14 Gbps per lane compatible with the quoted Infini band switch
2 x16 PCI-E Gen3 slots for GPU/Co- processors
Fully certified with RHEL5.x, RHEL6.x, SUSE Linux Operating system
80 Plus or better certified power supply
Power cables of IEC C13 type compatible with the quoted rack
2U or better form factor
Rack mounting sliding rail kit

**3. Compute node enabled with Intel Xeon Phi : Qty. – 02**

<b>Description:</b>
2 x Intel Xeon E5-2600 series or 2 x AMD Opteron 6300 series, min 2.6GHz, minimum eight cores, with min. specfp_rate2006 of 440
64 GB DDR3, 1600MHz Memory, in balanced configuration
2 x 500GB Enterprise SATA HDDs, with support for Hardware RAID 0 & 1
Two numbers of Intel Xeon Phi Coprocessors 5110P or latest
IPMI 2.0 or equivalent Support with KVM and Media over LAN features. Must include any licenses, if required for using these features
Two Gigabit Ethernet ports with PXE boot capability
One 4x FDR 56Gbps Infini band HCA based on PCI-E Gen3:- 14 Gbps per lane compatible with the quoted Infini band switch.
2 x16 PCI-E Gen3 slots for Intel Xeon Phi Co-processor
Fully certified with RHEL5.x, RHEL6.x, SUSE Linux Operating system
80 Plus or better certified power supply
Power cables of IEC C13 type compatible with the quoted rack
2U or better rack mountable
Rack mounting sliding rail kit



4. Compute node enabled with Nvidia GPGPU : Qty. – 02

<b>Description:</b>
2 x Intel Xeon E5-2600 series or 2 x AMD Opteron 6300 series, min 2.6GHz, minimum eight cores, with min. specfp_rate2006 of 440
64 GB DDR3, 1600MHz Memory, in balanced configuration.
2 x 500GB Enterprise SATA HDDs, with support for Hardware RAID 0 & 1
Two Kepler K20X GPU Card or latest
IPMI 2.0 or equivalent Support with KVM and Media over LAN features. Must include any licenses, if required for using these features
Two Gigabit Ethernet ports with PXE boot capability
One 4x FDR 56Gbps Infiniband HCA based on PCI-E Gen3:- 14 Gbps per lane compatible with the quoted Infiniband switch.
2 x16 PCI-E Gen3 slots for GPU Co-processors
Fully certified with RHEL5.x, RHEL6.x, SUSE Linux Operating system
80 Plus or better certified power supply
Power cables of IEC C13 type compatible with the quoted rack
2U or better form factor
Rack mounting sliding rail kit

5. Backup/Management node: Qty. – 01

<b>Description:</b>
2 x Intel Xeon E5-2600 OR 2 x AMD Opteron 6300 series Processor, Min. Six Cores, 2.5 GHz
2x146GB SAS HDD with Hardware RAID 0 & 1
RAM 16GB DDR3-1333 ECC RDIMM
One number DVD RW
Two 1GbE network ports
Fully certified/Compatible with RHEL5.x, RHEL6.x, SUSE Linux Operating system
1U rack mountable 19" LCD Monitor console, with integrated Keyboard and Mouse
IPMI 2.0 or equivalent Support with KVM and Media over LAN features. Must include any licenses, if required for using these features
1U form factor
Redundant power supplies with power cables compatible with the quoted rack
80 Plus or better certified power supply
Rack Mounting Sliding Rail Kit

6. SATA based Storage: Qty. – 01

<b>Description:</b>
Dual socket Eight core Intel Xeon or AMD Opteron processor with minimum 2.6 GHz
48GB DDR3-1600MHz ECC RDIMM
Dual SAS RAID controller in HA mode with support for Hardware RAID 0,1,10,5 & 6 (cache 4GB per controller)



OS: 2 x 500GB, 7200 RPM, Enterprise SATA, hot-pluggable HDDs configured as RAID1
80TB usable, 7200 RPM, Enterprise SATA, hot-pluggable HDDs configured as RAID 5
4X FDR 56Gbps Infiniband HCA, Single port QSFP (56Gbps 4x FDR Infiniband based on PCI-E Gen3:- 14Gbps per lane)
Slim DVD-Combo Drive (Internal)
Dual Gigabit (10/1000/1000Mbps) Ethernet onboard
IPMI 2.0 or equivalent Support with KVM and Media over LAN features. Must include any licenses, if required for using these features
1+1 redundant, hot-pluggable power supplies
Power cables of IEC C13 type
Rack Mounting Sliding Rail Kit
Vendor should provide all the components including cables, HBA, and other to make storage operational in HA mode

**7. 42U Rack with Accessories Qty. – 02**

<b>Description:</b>
Rack 800W /AL/42U/1000 H/D 60X50 A/U Extrusions With 80MMH Strong Steel Frame Embed at Top and Bottom With Cable Entry From Top & Bottom Panel, Provision 19" Mtg. Angles With Unique 'U' Marking
Four Nos. Of Reducing Cable Channel for Neat Cable Management
Total Modular Structure
Fully Perforated Front & Rear Steel Doors
Castor Normal/ Brake
Fan Housing Unit
Fans 90 CFM 230 VAC – Four (4) Numbers
Vertically mounted PDU, with 5/15 Amp 30 Sockets of IEC C13 type with 32 Amp MCB and indicator with 3mtr cable and industrial socket, Earthing Kit.

**8. Software:**

<b>Description:</b>
Intel Cluster Studio for Linux-Floating Academic 2 seat pack (ESD) with three years support for patches and upgrades
RHEL OS for master node, compute nodes and Storage
RHEL OS for Backup/Management Node
Job Scheduler
Cluster Manager for provisioning, deployment and management
Integrated Portal for Job Submission

- All the above softwares should be licensed and commercially available.
- Kindly provide academic/government pricing if applicable.



**9. Primary Communication Network: Qty. – 01**

<b>Description:</b>
36 Ports 56Gbps 4X FDR Infiniband Switch compatible with the quoted servers.
Support for OFED, iSER, SDP, IPoIB, RDMA & uDAPL
Suitable management software to manage the switch
Redundant power supply
Sufficient numbers of QSFP Infiniband Cables of appropriate length compatible with the quoted server HCA cards to suite the solution
All 4x FDR IB HCA and 4x FDR IB switch should be compatible.
Power cables of IEC C13 type compatible with the quoted rack
Rack Mounting Kit

**10. Secondary Communication Network: Qty. – 01**

<b>Description:</b>
48 ports, L2 Gigabit Ethernet switch
Port trunking capability
Required numbers of CAT6 Cables of appropriate length to suite the solution
Power cables of IEC C13 type compatible with the quoted rack
Rack mounting kit

**11. Cluster Management Network: Qty. – 01**

<b>Description:</b>
48 ports, Fast/Gigabit Ethernet switch
Required numbers of CAT6 Cables of appropriate length to suite the solution
Power cables of IEC C13 type compatible with the quoted rack
Rack mounting kit

**Scope of the Work:**

1. Entire repairing, commissioning and HPL benchmarking should be completed within 3 weeks.
2. Bidders are advised to visit the HPC, NIT Silchar to assess the H/W and/or S/W repair requirement before submission of their bid, at their own cost.
3. Bidder must be authorised by OEM to undertake and AMC of HPC. Such authorization letter should be enclosed with bid document in original.

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