



OFFICE OF THE REGISTRAR
DIBRUGARH UNIVERSITY
Dibrugarh | PIN - 786 004 | Assam

No: DU/RP/PMC/2020/290

Date: 12/10/2020

:: Notice Inviting Tender ::

Sealed Tenders are invited from reputed manufactures/authorized dealers/suppliers for Supply, Installation, Testing and Commissioning of **High Performance Computing System (HPC)** at Dibrugarh University under the **DST-FIST LEVEL – I Project**. Detailed specification of the items, terms & conditions etc are given below. **Last date of submission of Tender as per annexure with all relevant papers is 27/10/2020 up-to 16:00 hrs.**

Availability of Bid papers On website- https://dibru.ac.in/tender/	From: 12/10/2020 (11:00 hours) To: 27/10/2020(upto 16:00 hours)
Time & Date of opening of Technical Bid	28/10/2020 at 11:00 hours
Place of opening of Bid	Office of the Registrar, DU
Cost of the Document	₹500/- (Non-refundable)
EMD	₹1,00,000/-

The tender should be submitted in two separate sealed envelopes *i.e.* **Part-I : TECHNICAL BID** and **Part – II : FINANCIAL BID**. The technical bid shall be opened on above mentioned date and time and the financial bid of only those bidders who qualify in technical bid shall be opened on the same date or at a later date which shall be intimated to the tenderer whose technical bid are found to be valid. Dibrugarh University reserves all the rights to reject any or all the tenders without assigning any reason thereof. Details may be seen at <https://dibru.ac.in/tender/>

Sd/-

Registrar
Dibrugarh University
Registrar
Dibrugarh University

Copy to:

1. The Hon'ble Vice Chancellor for favour of information.
2. Dr. Pankaj Dutta, Deptt. Of Physics - for information.
3. The Deputy Registrar (F&A), D.U. for information.
4. The Programmer – for publish on Dibrugarh University Website
5. The Advertising Manager, The Assam Tribune – for publishing in The Assam Tribune.
6. Office File

Sd/-

Registrar
Dibrugarh University
Registrar
Dibrugarh University

CUT-OUT SLIP

NAME OF THE WORK: Supply, Installation and Commissioning of **High Performance Computing System (HPC)** at Dibrugarh University.

NIQ NO.: DU/RP/PMC/2020/290

Date: 12/10/2020

SUBMISSION DUE DATE & TIME

: 27/10/2020 up-to 16:00 HOURS.

FROM:

TO:

NAME:
ADDRESS

THE REGISTRAR
DIBRUGARH UNIVERSITY
DIBRUGARH, ASSAM

(To be pasted on the outer envelope containing “Technical” & “Commercial” bids)

Part A - Terms and Conditions

Part B - Specifications

PART A - TERMS AND CONDITIONS

GENERAL INFORMATION

The tender bids duly complete in all aspects, along with the necessary supporting documents should be submitted to the Registrar, Dibrugarh University. The Financial bids of the Bidders shall be opened on the same date or at a later date to be intimated to the tenderers whose Technical Bids are found to be valid. Right to reject any or all Tenders, without assigning any reason thereof is reserved by Dibrugarh University.

➤ Eligibility criteria for participating in the Tender:

1. The bidder must have local contract/service center (Office/Dealers etc) situated at Assam for atleast 03 years equipped with well trained and experienced team of service personnel (details should be furnished).
2. The Bidder should have an experience of supplying, installing and maintaining 02 nos of High Performance Cluster Computing (Minimum 100 cores) in any Govt. Institutions/PSU.
3. The servers whose product has been quoted should have at least three entry in Top 100 in the list for World's fastest Super Computers (refer <http://www.top500.org>).
4. The OEM should be an established vendor with presence in India for atleast 03 years and should be enlisted within top 3 manufacturer as per the Latest IDC Report.
5. The Bidder should have an annual turnover of Minimum ₹1,50,00,000/- (One crore fifty lakhs) during the last 3 financial years.

I. Instructions to the intending bidders:

1. The intending bidders should read carefully all the instructions and terms and conditions, etc before quoting rates in prescribed schedule of this Bid Document. Taxes and duties etc. should be shown separately.
2. All the manufacturers/ distributors/ stockiest should also give a brief profile about their company and the facilities available with them of the quoted items. Their turnover and important firms/ Government Institutes/ P.S.U.s etc. to which they are supplying quoted items, should also be mentioned.
3. The rates in Indian Rupees should be mentioned in the **Schedule** attached with this Bid Document. Each page of the Bid shall be signed in full and stamped with the seal of the supplier. The signatory/ies to the document must clearly state in what capacity he or she is signing the Bid Document.
4. The intending bidder shall submit the bids in two envelopes. The first envelope (Technical Bid) shall contain all the documents referred to in **Para- III below** and be sealed. The second envelope (Commercial Bid) shall contain the **Schedule**, in which the bidder shall quote the rates of supply. The second envelope shall also, likewise, be sealed. Both the envelope then should be put together,

and should be sealed in one envelope on which the cut out slip provided as part of the Bid document should be pasted, and the particulars shall be duly filled in. The Technical Bid shall be opened first to ensure that suppliers have submitted all the requisite documents. If the Technical Bids are not in order or any deviations encountered in some aspect, the commercial bids of such bidder/s shall not be taken into consideration.

5. The data sheet documents, technical documents, etc (if any) submitted should be available at any time on the website of the respective manufacturer / OEM and URLs to the respective documentation should be provided in the compliance statement for verification and future reference.
6. The bidder must avoid incorporation of ambiguities on any point on the bid documents. All points should be clear and to the point.
7. Application fee and EMD to be submitted seperately through Demand Draft or A/C payee Cheque to be drawn in favor of “**Registrar, Dibrugarh University – Project Fund**”.
8. The earlier NIQ viz: No: DU/RP/PMC/2020/2013 dtd: 12.03.2020 (or any extension thereof) stands hereby cancelled.

II. General Terms and Conditions :-

1. Technical specifications of the instruments/equipment are given in **Annexure** to these papers (Part B).
2. The delivery and installation should be completed within 45 (forty-five) days or as specified from placing of the order. No extension shall be granted to the contractors/suppliers for the period of delivery, under any circumstances.
3. If the supplier fails to deliver the article as per the delivery schedule, the University shall be free to procure the balance/undelivered supply, at the risk and cost of the supplier, from other such suppliers.
4. The goods, articles, materials supplied by the supplier shall be accepted after inspection by an officer authorized by the competent authority. No articles/materials which do not conform to the specifications laid down in the terms and conditions or damaged in transit shall be accepted.
5. The bills of the suppliers shall be paid by the University after all the materials/articles/equipment along with requisite parts/accessories have been received and installed, inspected and commissioned.
6. The bidder may also indicate details of any hardware/software that may form part of the said equipment other than those specified on the Specifications.
7. The bidder has to install all the applications viz: UBUNTU (OS), Gaussian 09, Quantum Espresso, Gromacs, Roots etc required for smooth running of the equipment and also has to provide at least 01 (one) day training to the end user including their group.
8. The price quoted on the Bid should be F.O.R. Dibrugarh University and shall have to be valid for atleast 60 days. Further, this Bid document is not transferable.
9. In the event of any breach of the terms and conditions of the supply, the University may terminate the contract placed with the supplier and forfeit the security deposit of the supplier.

10. The quantity as mentioned at Part-B (Specifications) are indicative and not exhaustive. Actual requirement may be varied at the time of placing Order as per requirement.
11. Exemption from submission of Bid Security (also known as Earnest Money) is allowed to Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organisation or the concerned Ministry or Department.
12. **Refund of EMD:** - The eligible shortlisted L1 vendor shall be entitled for refund of EMD after one year from the date of satisfactory completion of supply, installation, commission etc. All other bidders shall be entitled for refund, within one month from the date of confirmation of the L1 bidder by the Competent Authority.
13. The shortlisted bidder must address all the technical glitches as and when encountered by the end user or their authorised representative/s for atleast 06 (six) months from the date of installation, without any additional cost.
14. The University shall retain 10% (if required) of the total bill value as security deposit for 1 year.

III. Terms and Conditions regarding Documentation:-

1. Bidder must submit duly signed Compliance statement in tabular form comparing each component provided in the specification of the quoted item as provided in the **Part – B** of the Bid Document.
2. Suppliers shall submit the following documents along with their quotations:
 - a) Certificate of Incorporation/Registration
 - b) PAN/GST Registration No.
 - c) Technical specifications offered by the Supplier.
 - d) Technical compliance table.
 - e) Technical literature regarding the offered products including diagrams/prototypes.
 - f) MSME Registration Certificate (if applicable) for availing EMD exemption.
 - g) Audited financial statements for the last 03 financial years.
3. The Bidder shall have to be an Original Equipment Manufacturer (OEM) or his Authorized Dealer/Channel Partner having a Direct Purchase and Support agreement with the OEM. In case, the Bidder is a Dealer, a valid LETTER OF AUTHORIZATION from Original Equipment Manufacturer should be produced along with the bid.

Note:

(a) No erasures or overwriting shall be allowed, unless they are authenticated under the full signature and the seal of the tenderer.

(b) The University reserves the right to:

- (i) Accept/reject any/all tenders without assigning any reason thereof.
- (ii) Revise the quantities at the time of placing the order without change in the rate quoted by the bidder.
- (iii) Add/modify/relax or waive any of the conditions stipulated in the Bid document whenever deemed necessary.
- (iv) Award the contract to one or more bidders for the items covered by the Bid document.
- (v) Accept ambiguity (if any) incorporated on the bid, in the manner so favorable/beneficial to the University.

(c) Participating in the NIQ shall imply unconditional acceptance of all the terms and conditions mentioned in the bid document.

Schedule of Rates

ITEM No	DESCRIPTION OF GOODS WITH DETAILS OF SPECIFICATIONS	Make	Unit Price (INR)	Taxes	Qty.	Total Amount (INR)
1						
2						
3						
Gross Total (₹)						

Signature of the Bidder
Seal of the Firm

***Add/remove rows as per requirement.

***Addition/removal of columns is not permitted.

Part – B

1. Technical Specification for **High Performance Computing System (HPC)** : -

1. Master Node

QTY:01

Parameter	Minimum required features
Make & Model:	
Processors	2 x Intel Xeon Silver 4214, 2.2 GHz,16.5 M Cache , HT,12C/24T 85W or better
Chipset	Latest OEM chipset supporting an optimized for the above processor
Memory	24 Dimm Slots , 64 GB DDR4 Advanced ECC memory and upgradable to 512 GB DDR4, 2400MHz RAM or higher
Hard Disk Drives	5 x 2.4 TB (Total 12TB raw capacity) SAS 7.2 KRPM, 12Gbps 2.5in Hot-plug Drive
HDD bays	HDD bays supporting SAS, SATA, SSD drives (Maximum HDD Support : 8 x 2.5”HDD)
I/O slots	Minimum 6 x PCI-Express 3.0 slots
RAID levels	Integrated RAID Controller, 1GB Cache, Support for RAID 0,1 ; support for RAID 5
Network Interface	1 x On-Board LOM 1GBE (Dual Port)& 1 x Dual Port 10G Base-T card
Graphics controller	Integrated Graphics with at least 16MB Video Memory
Server Management	OEM embedded controller and Server Management Tool from same OEM
Remote Management	System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive
Ports	Min 3 USB ports
Power supplies	Redundant Platinum rated Power Supply (at least 800 Watts each) to sustain above configuration.
Cooling	Hot plug and redundant fans (Non Cabled)
Certification	The server OEM must be ISO-14001 The Server manufacturer should be enlisted within top 3 manufacturer as per the Latest IDC report Q1, 2019
Operating Systems supported	Microsoft Windows Server, Novell SUSE Linux Enterprise Server, Red Hat Enterprise Linux, , VMware, FCC, UL, ROHS
Warranty:	5 years onsite warranty with Back to Back support from OEM

2. Compute Node

QTY: 04

Item	Minimum required features
A) Compute Nodes chassis Specifications	
Make & Model:	
Chassis	Vendor should offer a Server chassis / enclosure based solution which can hold dense servers(Pure CPU and GPU based compute nodes) on an average of 2U per Server, capable of getting mounted in a standard 19" 42U Rack (max depth of 1000mm). Each of the Server nodes should be individually serviceable, without shutting down the other Server nodes.
Redundant Power Supplies	The entire solution should be offered with redundant power supplies at enclosure level.
Redundant Fans	The chassis / enclosure should be configured with redundant fans
GPU/Accelerators	The chassis should be able to support 2 compute nodes with GPUs or 4 Compute Nodes without GPU. The Chassis should be able to support combination of both GPU and compute nodes
Certification	The Server manufacturer should be enlisted within top 3 manufacturer as per the Latest IDC report Q1, 2019
B) Compute Server Specifications (Qty :- 4 Numbers of 2 Socket Server)	
Make & Model:	
CPU	2 x Intel Xeon Silver 4216, 2.1 GHz,22 M Cache , HT,16C/32T 100W or better
Chipset	Intel C622 Series Chipset or better
Memory Requirement	64 GB to be configured using 2666 MHz RDIMMs. Adequate DIMMs to be configured to populate all memory channels in a balanced manner. Compute node should be scalable to 16 DIMMs.
Memory Scalability	Should be capable of scaling up to 512 GB Memory.
Memory protection	Advanced ECC
Hard Disk	2 x 2.4TB 7.2K RPM SAS Drives
Networking	2 x 1Gbps ports with PXE boot capability&1 x Dual Port 10G Base-T card
Management Port	1Gbps Remote Management Port
PCI-Express 3.0 slots	The compute node should have capability to be configured with at least 2 no's of PCIe -Gen3 (x8/16) low profile IO slots
OS Support	Should support RHEL6.x / SLES 11 or higher
Warranty	5 Years Warranty on chassis & Servers

3. 12 port 10G Switch

QTY:01

Parameter	Minimum required features
Make & Model:	
Physical Interface	Twelve 1000/10000 Mbps RJ45 ports and additional 4 x 10 Gigabit SFP+ fiber
Memory	4GB flash; Packet buffer size: 2 MB, 4 GB SDRAM
Performance	100 Mb Latency : < 5 μs, 1000 Mb Latency : < 5 μs, 10 Gbps Latency : < 1.5 μs
Throughput	Minimum 230 Mpps (64-byte packets)
Routing/Switching capacity	Minimum 320 Gbps
MAC address table size	Min 16384 entries
Network Protocol and Standards	IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T, IEEE 802.3z 1000BASE-X, IEEE802.3ae 10GBase Ethernet, IEEE802.3an 10GBase-T
Reliability, Performance, Troubleshooting	Port mirroring both on ingress and egress traffic, Jumbo frame support, DoS Prevention
Traffic Management	Auto Negotiation of speed and duplex modes, 801.2x Flow Control ,DHCP Client, Dynamic MAC address management, Port-based and IEEE801.2p-based QoS, QoS based on ToS (Type-of-Service), Link Aggregation
Multicast Efficiency	IGMP snooping, v1, v2 and v3, IGMP Snooping querier (6 and 24 port models only), Blocking of unknown multicast traffic, Act as static multicast router port
Environmental Specifications	Operating Temperature:32 to 113F (0c to 45c)
Operating Humidity	90% Maximum relative humidity, non-condensing,
Switch Management	Firmware Upgrade thru Plus Utility (TFTP)
	System password protection, SNMP,HTTPS
Certification	UL, FCC , Switch OEM should be present in the latest Gartner report for data center networking.
Warranty Support	3 Years onsite Comprehensive

4. 24 port 1G switch

QTY:01

Parameter	Minimum required features
Make & Model:	
Switch	24 port managed 1 Gigabit Switch

5. KVM Switch

QTY:01

Sl.No	Minimum required features
Make & Model:	
1	Minimum of 16 ports
2	Connect computers via PS/2 and/or USB.
3	Supports Windows, Linux, Mac OS9/OSX, Sun Microsystems.
4	On-Screen-Display (OSD) & Cascade Chain functions.
5	OSD with intuitive menus for quick and effective navigation.
6	Advanced user profiles and configurable OSD hot key combinations
7	Multilingual OSD: English, France, German, Spanish, Italian, Russian, Simplified Chinese, Japanese
8	Support resolution up to 1920 x 1080
9	From a single console. Cascaded units do not need special configuration.
10	Hot-pluggable: all devices connected to KVM can be added or removed at any time without shutting down the devices.
11	Auto Scan video for effortless monitoring
12	Easily switch between connected devices with: Hardware Push Button, Hot-Keys on PS/2 and/or USB keyboard with OSD menu.
13	Hotkey combination: Scroll-lock, Cap-lock, Num-lock, Alt, Ctrl & Win
14	Multi lingual on screen display menu
15	Supports LED display for PC and/or server status monitoring.
16	Enable/disable beeper during channel switching.
17	Rack mountable in 19" rack (1U).
18	Shock : 10G acceleration (11ms duration)
19	Operating temperature : 0 to 55°C degree , Storage temperature : -5 to 60°C degree
20	Operating humidity : 90%, non-condensing, Storage humidity : 90%, non-condensing
21	DC power options available : 12V / 24V / 48V / 110 ~ 125V
22	Power consumption: Max. 24W
23	All connecting cable to nodes (min8) should be provided.
24	Safety approval : CUL, FCC & CE certified, 3 Years onsite Comprehensive

6. Rack Mountable Console

QTY: 01

Rack Console:	Form factor 1 U - 19" Rack Mountable Console (with keyboard & mouse attached to the monitor), Native resolution 1440 x 900, Brightness (cd/m ²) 300, Contrast 1000: 1, Environment Operating temperature: Storage temperature : -20 to 60°C degree, Safety FCC, UL, CE & ROHS certified 3 Years onsite Comprehensive Warranty.
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7. 10KVA UPS with 60 minutes backup time

QTY:01

SI No	Parameter	Minimum required features
Make & Model:		
1	Configuration	10 KVA/9 KW @ 0.9 p.f. On-Line UPS with Inbuilt Isolation Transformer. UPS must support common battery bank in redundant configuration with another UPS of same type and rating,
2	AC Input Voltage Range	160-280V AC, 1 Phase
3	Surge Protection Device	Device: UPS should have 1 Phase, Type 2 surge arrester (40kA) according to EN 61643-11. It should provide Lightning Protection (according to IEC 1312-1 and EN 62305) through equi-potential bonding and eliminate transient overvoltage, originating during atmospheric discharges or switching processes
4	Auto Phase Sequence Correction	UPS must have inbuilt auto phase sequence correction facility, i.e. UPS must continue to operate in mains during phase reversal and should not trip or transfer to battery or bypass mode
5	Input Frequency	50Hz \pm 10% (Suitable for Generators), AC Output Voltage: 230 V AC, 1-phase \pm 1% (Sine Wave Output),
6	Output Frequency	50 Hz \pm 0.05 Hz,
7	Overload Capacity	125% for 10 minutes, 150% for 60 seconds
8	Crest Factor	Better than or equal to 4:1
9	Isolation Transformer	UPS output should be fully isolated by double conversion and inbuilt isolation transformer within the UPS cabinet itself. External transformer shall not be considered
10	Indications & Audible Alarms	Mains On, Inverter On, Overload, Load On Mains, Load On Battery, Battery Low
11	Digital Metering	LCD display for measurement of AC Voltage, Battery voltage, Battery Current, Load Current, Output frequency.
12	Battery Back-up & Other Details	The system must be capable of providing requisite battery back-up time of 1 hour (60 minutes) 1 using 12V, VRLA Sealed Maintenance Free Batteries Required VAH: 11700 VAH for 1 hour battery backup,
13	Certification	<ul style="list-style-type: none"> · BIS Certificate for Quoted Model · CE Certification (confirming to IEC 62040-1 & IEC 62040-2 Standards) · ISO 9001, ISO 14001, OHSAS 18001, ISO 27001 certified. · RoHS Compliance Copies of the above certifications should be submitted with the technical Bid (compulsory).
14	After Sales Support & Manufacturer's Credibility	<ul style="list-style-type: none"> · UPS OEM Should have their own service Centres in Assam · UPS OEM should have a dedicated Toll Free No. for service call logging & resolution (no. to be provided) · UPS OEM should not have been blacklisted or debarred from business from any government
15	Warranty	2 Years onsite warranty

8. 42U rack

QTY:01

SI No	Minimum required features
Make & Model:	
1	42U Rack Frame/600/1000/Steel/NRS1/ Casters Type 2, Levelers, 19" Adopter kit/Loops, Glass Door/ Metal Door/42U/800/NRS1, Side Panels/1000/42U/ Vented
2	1Ph, 32A, Zero U Vertical PDU 12 X IRP 5/15A, 16A MCB X 2, Rating 7.3KVA
3	Horz. Cable Organizer/1U/Loop
4	Shelf/1000
4	Shelf/Key Board/19"Rty/1000
5	Mounting Hardware-CR (Pack of 20)
6	ITE / Server Rack Air Circulation module/Tower Mount/360CFM

Cluster Management Software	Cluster Management (Open source) FORTRAN Compiler for the cluster MPI libraries, OPEN MPI libraries and other parallel Libraries.	QTY-01
Installation	Installation & configuration of Hardware ,OS,Cluster Management Software & Application Softwares	QTY -01

Sd/-
Registrar
 Dibrugarh University
Registrar
Dibrugarh University

Checklist of Documents

The Checklist should be accompanied along with the technical bid.

Sl no	Document	Instrument No (Wherever applicable)	Check
1	Application Fee (If applicable)		<input type="checkbox"/>
2	EMD		<input type="checkbox"/>
3	Technical Compliance Statement		<input type="checkbox"/>
4	Certificate of OEM/Authorisation letter		<input type="checkbox"/>
5	Certificate of Incorporation/Registration		<input type="checkbox"/>
6	PAN/GST Registration Certificate		<input type="checkbox"/>
7	MSME Registration Certificate (if applicable) for availing EMD exemption.		<input type="checkbox"/>
8	Audited financial statements for the last 03 financial years		<input type="checkbox"/>

*** Any other supporting documents as felt necessary by the bidder may be enclosed

Signature of the Bidder
Seal of the Firm

Technical Compliance Statement

Sl no	Item and Specs	Reqd Qty	Compliance	Deviation (if any)
1				
2				
3				

Signature:

Date.....

Name :.....

Address :.....

.....

.....

Mobile No.....

Note: To be enclosed with the Technical Bid.

***Add/remove rows as per requirement.

***Addition/removal of columns is not permitted.