

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

An Autonomous Institution of the Department of Atomic Energy, Government of India (A Deemed University)

Plot No.36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District, Hyderabad, Telangana, India PIN 500

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Ref:TIFR/PD/CA19-86/190853

January 13, 2020

To

ENQUIRY
(Limited Tender)

=> By Speed Post/Courier

Vendors.

Dear Sirs

Please let us have your Quotation for the following:

S.No.	Item Description	Qty	UOM
1	AMD Epyc based HPC Cluster with five years warranty. Specifications, terms conditions as per Annexure - A	1.00	NO

NOTE :
Please submit the quotation as per specifications and quote as per price bid format (Both Technical and Price bid in one quotation - Single quote).

PLEASE SUBMIT YOUR QUOTATION AS PER BOQ.

Please mention your GST Registration numbers on the quotation, proforma Invoice and Bills. Quotation should indicate make, delivery period, guarantee/warranty exact taxes applicable, etc.

The payment will be made only after delivery of the supply, satisfactory installation, commissioning and performance of the item/equipment. No Advance payment will be made except in case of furnishing valid Bank Guarantee from any nationalized/scheduled bank the B. G. shall be valid till the complete delivery is made at the site.

Quotation should be submitted in sealed envelope duly superscribing our enquiry reference and due date.

TIFR is a public funded research institute and is entitled to concessional rate of GST @ 5% for certain items supplied for research purpose vide notification no. 47/2017 dated 14th Nov, 2017. The offer should be submitted after fully considering the above notification.

Quotation sent by hand delivery / courier are to be deposited in the Tender Box kept at the Main Gate after obtaining stamp, date and signature of the Security Officer.

Due Date for submitting your offer is 30/01/2020.

Yours faithfully

J.RATHNA
Administrative Officer (C)



Supply, installation and commissioning of a High Performance Computing (HPC) Cluster

Annexure - I

Technical pre-qualification for the bidders

Mandatory requirements for a bidder to qualify as a participant in this tender:

s.no	Technical pre-qualification criteria	Compliance Yes/No	Remarks
1.	<p>The bidder should have executed at least three projects using architecture and technologies similar to those being proposed in their quotation against this tender. In addition, the following condition should also be satisfied.</p> <ul style="list-style-type: none"> ● At least one installation of minimum 10 TF (Tera Flops) or ● At least two installations of 7 TF or ● At least three installations of 5 TF <p>Note: All the mentioned peak value should be CPU only sustained peak performance ratings, which should be a cluster (more than one node with a interconnect). Single servers will not be considered.</p> <p>Purchase order copies of the same must be submitted with the technical bid. The OEM or partner should have successfully executed projects at Government/ Public/ Private Research organizations /institutions performing scientific computation using High Performance Computing Clusters across the country.</p> <p>Purchase order with final commissioning report with the mention of compute capacity and architecture details duly signed by customer should be submitted with the technical bid.</p>		
2.	<p>The Bidder should have the experience in building HPC Clusters in global HPC Market since last 3 years with logistics facility for the bidding OEM in India for easy access and availability of spares and to ensure the proper back-end support for smooth execution and post-sale support operations. Documentary proofs should be attached.</p>		
3.	<p>All warranty and support must be serviced directly by the OEM or should be from an authorize System Integrator Partner who is authorize to Support the product quoted. TIFR-H requires that there be a Single Point Of Contact (SPOC)</p>		



	from OEM/Vendor who is responsible for all issues between TIFR-H and the OEM.		
4.	Bidder should be either an Original Equipment Manufacturer (OEM) or should be authorized System Integrator Partner having back to back Support Agreement with the OEM. Manufacturer's Authorization Form (MAF) for participating in this tender is mandatory for bidders and should be attached along with technical bid. The Bidder participating in the tender process should give the MAF confirming the bidder's authorization to participate in the tender with tender number and details.		
5.	Hardware and software warranty support requests to be handled and serviced directly by OEM/Bidder. OEM/Bidder should have required critical spares at local service center.		
6.	OEM/Bidder should have a local service center within the radius of 1000 Km from Hyderabad. The OEM/Vendor should have service engineers stationed at Hyderabad in the relevant field of quoted item.		
7.	The OEM/Bidder must have an India based support infrastructure by maintaining a local spares depot in the country. This is to ensure immediate delivery of spare parts from OEM to its channel partner/system integrator.		
8.	The bidder should submit the BIS certificate for the quoted hardware. The OEM and Bidder should have valid ISO certification. Please attach a copy of the certificate.		
9.	The complete proposed solution must have all encompassing comprehensive onsite advance replacement warranty of 5 years duration which includes hardware, software, firmware, software updates, etc., If the hardware replacement process takes more than two days, the bidder/OEM should provide a standby hardware till the replacement is made.		
10.	Products offered should have official OEM support for next three years from the date of acceptance of installation.		
11.	The entire HPCC solution proposed by the bidder/OEM should be offered with lowest power consumption for the given specification in the tender.		
12.	All quotations submitted must follow the prescribed format for technical compliance as in document below. Failure to do will result in the quotation being summarily rejected. Soft copy of the technical bid document in excel format should also be submitted. Soft Copy should be provided in a read only format with CD/DVD.		
13.	One bidder can propose only one technical solution and the price bid for the same should be submitted. Quoting of multiple technical solutions with multiple price bids will result in the quotation being summarily rejected.		



Annexure – II

Scope of Work**Scope of work includes the following**

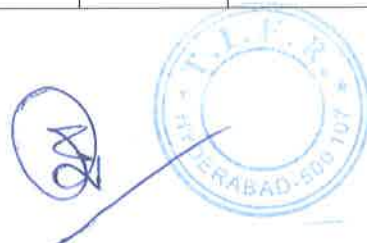
Supply, Installation and Commissioning of a High Performance Computing Cluster (HPCC) as per the specifications below

Technical Specifications

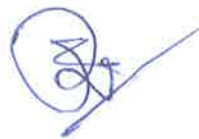
Specifications of the High Performance Computing cluster					
Mandatory Clause					
a) All warranty and support must be serviced directly by the OEM or should be from an authorized System Integrator Partner who is authorized to Support the product quoted. TIFR-H requires that there be a Single Point of Contact (SPOC) from OEM/Bidder who is responsible for all issues between TIFR-H and the OEM.					
b) All the hardware and software deployment will be in vendor's scope of work and vendors need to install open source software required by the end user at the time of deployment.					
c) The Compute nodes should be in denser rack form factor designed for cluster solution.					
d) The entire compute nodes must be factory integrated, tested, validated and certified in the bidder/OEM site. No on-site or local assembling of the system at TIFR-H site is allowed. Only rack-mounting, OS and application installation is allowed on-site.					
Mandatory items					
Computer Hardware			Make/Model/Remark to be filled by the Vendor		
S.No	Description	Qty	Make & Model	Compliance Yes/No	Remarks
1	Master + Storage Node	1			
	2 x AMD Epyc 7282 16 Cores, 2.8 GHz with suitable chipset				
	128 GB DDR4 2933 MHz or better in a balanced configuration				
	2 x 480 GB Enterprise SATA SSD configured in RAID 1				



	6 x 12 TB 7.2K RPM Enterprise SATA Hard drive configured in RAID 5 with one hot spare.				
	1 x 2GB RAID Card supporting RAID Levels 0,1,5,6 and 10.				
	2 x 1 G Ethernet Ports				
	1 x IPMI 2.0 or equivalent with KVM and media over LAN features				
	Form factor - 2U or better full width server form factor with rack mount kit and peripherals				
	80 Plus platinum or better redundant power supply with IEC C13 to IEC C14 cables				
2	Compute Nodes	4			
	2 x AMD Epyc 7502 32 Cores, 2.5 GHz				
	128 GB DDR4 2933 MHz or better in a balanced configuration				
	1 x 480 GB Enterprise SATA SSD for operating System				
	2 x 1 G Ethernet Ports				
	1 x IPMI 2.0 or equivalent with KVM and media over LAN features				
	Form factor - 2U or better with half width servers in a chassis with rack mount kit and peripherals				
	80 Plus platinum or better redundant power supply with IEC C13 to IEC C14 cables				
3	Networking/Interconnect - 24 Ports fully non-blocking 10G Copper Ethernet Switch with required Ethernet cables for computer connectivity and 24 ports 1G Switch for management connectivity.	1			
4	Fully Automated System Provisioning	1			
	Operating System - CentOS/Debian latest stable version				



	Clustering Tool kit - Preferably TrinityX/XCAT open source/OHPC				
	Scheduler - SLURM (partitions needs to be configured according to user requirements)				
	Monitoring/Admin tools - Ganglia, Nagios, Gold accounting, PDSH, PDCP, automated emails, usage report generations, etc.,				
5	Software - Open Source HPC software required by the end user should be installed. Software support should be provided till the end of warranty period				
	Benchmarking - The supplier should run HPCC benchmarks (https://icl.utk.edu/hpcc/) and submit the results as a part of commissioning. The bidder should achieve minimum 80% sustained performance across/individual nodes and the reports of the same should be provided.				
6	Warranty and Support - Five years onsite comprehensive advance Hardware replacement warranty and software support	5 years			




Financial Bid

All the Bidders should quote their offer in the following format for uniformity.

TIFR Hyderabad Enquiry No & Date: _____

Due date: _____

Mandatory Items

S.No	Item Description	Qty	Rate per unit (Currency)	Total Amount (Currency)
1	Master + Storage Node	1		
2	Compute Nodes	4		
3	Networking/Interconnect - 1 No of 24 Ports 10 G copper Ethernet Switch with required cables and 1 No of 24 ports 1G Switch	1		
	Ex-works cost (Duly packed Airwothy/Seaworthy of international standard)			
	FOB/FCA Cost (Name of Airport _____)			
	CIP/CIF Cost (Upto Hyderabad Airport) (all inclusive i.e., Cost of Goods, Packing, Insurance, Inland transportation, freight, etc)			

Note:

1. All the column should be appropriately filled and not left blank.
2. Do not include any other charges, taxes, duties etc. in the Basic Cost of the item.
3. Any accessories, optional items should be shown separately using above format.
4. Use separate sheet for detail description, specification of the item, but prices should be quoted in same format.
5. Prices quoted in Indian Currency should be on F.O.R. basis and mentioned separately using different table format showing all the applicable taxes/Duties like GST, Freight & Transportation charges and installation charges etc.
6. TIFR Hyderabad being educational & research institute, discounted price shall be offered.

Signature of the Bidder

Name, Address contact no _____

& email id of the bidder/ _____

Company with company's Stamp or Seal _____

Date: _____

Place: _____

