

Ref: JKS/2015/001

Date: 04/09/15

Dear Sir,

Please submit quotations (Technical and Commercial) for the following item for the up gradation of an existing cluster:

S. NO	Description	Quantity
1.	Compute servers	2

The quotation should indicate make delivery period, exact taxes applicable, installation charges warranty etc. Please mention VAT/ST/CST Registration numbers on the quotation, proforma invoice and bills.

The Tender Technical Bid (Part 'A') and Commercial Bid (Part 'B') should be submitted in two separate sealed envelope duly subscribing our enquiry reference and due date in bold letters, addressed to

Dr. Jayant K. Singh
Department of Chemical Engineering
IIT Kanpur-208016

Due Date for submitting your offer is on or before 13.00 hrs. 21.09.2015.

The tender submission date extended upto 5th October , 2015.

Technical Specifications and Conditions

Hardware:

Item 1 – Compute Server

Form Factor	1U/2U Maximum, Rack Mount. One chassis should contain one node only. (No Dense Architecture)
Processor	2X Intel ® Xeon® Processor E5-2640 v3 (8C/20MB Cache, 2.60 GHz
RAM	64 GB DDR4 ECC 2133MHz memory (4*16GB) Scalable to 1536GB DDR4 ECC 2133MHz or higher with 24 dimm slots
Storage	1 x 1 TB HDD
Ports	2x Gigabit Ethernet Port and 1 x 40Gbps Intel Infiniband Port.
Slots	Total 3x PCIe 3.0 slots
Power Supply	Redundant & hot plug power supply with Hot-Swappable fan.

Item 2- IB & GigE Connectivity:

The existing cluster is connected to a existing QDR Infiniband Network with a 18-port switch from Intel and a 1GB gigabit interconnect network with a 16 Port Switch. Ports are available for connecting new nodes to the cluster. The bidder needs to provide sufficient cables for adding new nodes to the cluster.

Item 3:

Specifications of existing cluster:

The existing HPC system setup consists of:

- i) 1x Master Node [Fujitsu PRIMERGY PY RX2530 based on 2xIntel Xeon E5-2640v3 8C/16T 2.60 GHz, 64 GB RAM, 3nos of 4 TB SATA HDD, RAID Ctrl SAS].
- ii) 6x Compute Node [Fujitsu PRIMERGY RX2530 M1 based on 2xIntel Xeon E5-2640v3 8C/16T 2.60 GHz, 64 GB RAM, 1 nos of 1 TB SATA HDD
- iii) Above system is connected to a QDR Infiniband Network with a 18-port switch from Intel and a 1GB gigabit interconnect network.

This HPC system is under comprehensive warranty.

ITEM 2 : Warranty and technical support:

- i) Cluster management and support for 3 years
- ii) Hardware Warranty for 3 years

ITEM 3 : Scope of Work with Deliverables to be part of implementation :

Scope of the HPC system up-gradation work should include:

- a. Rack mounting of computing systems, additional storage installation in master node and with proper cabling.
- b. Installation & Configuration of the OS CentOS 6.2 GNU/Linux kernel version 2.6.32 after aforementioned

hardware up-gradation.

c. Installation of existing cluster management tool into new nodes, Ganglia, TORQUE Resource Manager/SGE etc.

d. Installation and Configuration of GNU Compilers and setting up of parallel environment (MPI)

e. Installation and Configuration of existing softwares running on the cluster system to new compute nodes.

f. Power On Self-Test (POST)

g. System Integrator shall be responsible for backup and restoration of all data and software available on the existing cluster to the upgraded system. the vendor should provide comprehensive support the new HPC system with the existing system on turnkey basis as existing support will lapse in case of upgradation to the system.

h. Linpack Benchmarking to be performed on the upgraded HPC system.

ITEM 4 : Technical Conditions:

(i) System should be of **Fujitsu** make only.

(ii) Bidders should be either OEM or its authorized distributor. In case of authorized distributor, letter of Authorization from Fujitsu on the same and specific to the tender should be enclosed.

(iii) An undertaking from the OEM (original equipment manufacturer) is required stating that they would facilitate the bidder on a regular basis with technology/product updates and extend support for the warranty as well.

(iv) Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between bidder specification and supporting documents etc. may lead to rejection of the bid.

(v) An undertaking from the BIDDER is required stating that they would provide comprehensive support for both hardware and software of entire cluster including existing environment.

(vi) Supplier must show valid proof of below mentioned capabilities:

a) Installing and configuring the HPC cluster based system with atleast 20 nodes with IB network.

b) Bidder should have registered office in North Region. Please provide valid Local tax (VAT) registration certificate.

c) Bidder should have atleast 3 HPC resources in North region on their Payroll. Details to be provided along with the bid.

d) Bidder should have support center in either Kanpur/Delhi/Lucknow

e) Bidder should have deployed at least five compute clusters of 24 or higher number of nodes, in India in last five years. Details of these previous installations must be provided.

7 Entire solution to be implemented in 12 weeks' time line. Delay in delivery will have penalty of 0.5 % of order value per week to total of 5% of order value. IITK reserve the right to cancel the order if it is not deployed even after that.

8. Delay due to IITK will not be considered in computing time.

9. The Bidder should give the power and cooling requirements for the cluster solution along with the proposal.

10 Equivalent (or better) hardware/software can be allowed at the discretion of IIT Kanpur. However, in such cases, the Bidder must provide sufficient justification for the deviation from the specifications given here.

11. Warranty and support period (minimum 3 years on-site) should be mentioned.

12. The vendor should be able to install and integrate (in parallel) Linux operating system with existing framework of the cluster.

13 Terms and Conditions, and deviations should be clearly stated with the signature of the responsible person.

Important Dates:

Date of issue of this inquiry: 07 September 2015

Last date for receiving quotations: 21 September 2015

Contact Address:

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