

Sub: Enquiry No. JKS/ChE/2013/003

Date: 23/04/13

Dear Sir,

Please submit quotations (Technical and Commercial) for the following item:

S. NO	Description	Quantity
1.	Compute servers	8
2.	Buy back of 2007 purchased Intel Xeon	12 servers

The quotation should indicate make delivery period, exact taxes applicable, installation charges warranty etc. Please mention you 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. 23.05.2013. Tender will be opened on the same day at 15.00 hrs

Technical Specifications and Conditions

Hardware:

Item 1: – Compute Server

2 * 2.6 GHz Intel Sandybridge processor E2670 (8 Cores / 8 FLOPS Per Processor)

2GB/Core ECC Memory (1600MHz)

2*500GB HDD

QDR IB HCA

Dual GigE Ports;

Form factor 1U

IB Cables

Gigabit and Management Connectivity with Cables

ITEM 2: Warranty and technical support:

- A. Cluster management and support for 5 years
- B. Hardware Warranty for 5 years

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

- 1 Physical Verifying Hardware items in Bill of Material
- 2 Rack mounting all the Hardware and Connecting Power cables, Ethernet cables to all the Nodes
- 3 Hardware Installation Compute Nodes, switches
- 4 Installation and configuration of Cluster OS and Cluster Toolkit and compute Nodes
- 5 Installation and Configuration of Scheduler, queues, users and policies; policies to be discussed with IITK before installation process and implemented.

Installation of Compilers & Libraries

- 6 Installation and Integration of Intel compilers
- 7 Installation and Integration of Open Source compilers and libraries
- 8 Integration with the existing s/w, mpi and scheduler
- 9 Testing and Verification of Complete setup functionality

Application

- 10 Application Testing

Benchmarking

- 11. Demonstration of HPL Benchmark performance of minimum 80% on CPU

Training and Documentation

- 12 Cluster Usage Training & Scheduler training to End Users
- 13 Documentation
- 14 Project final Signoff

ITEM 4: Technical Conditions:

- 1. Itemized price list for each hardware item, software bundle and service and warranty to be given separately and clearly.
- 2. Report of LAMMPS and CPMD script (write email to nsada@iitk.ac.in/tkpatra@iitk.ac.in) for the script) should be reported for the proposed server.
- 2. Minimum 98% uptime with next business day reporting onsite.
- 3. Server OEM should have minimum 5 installations in top 500 supercomputing and should have support center in either Lucknow/Kanpur/Delhi.
- 4. Bidder should have support center in either Kanpur/Delhi/Lucknow
- 5 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. If the vendor falls short of satisfying the above criteria but has tie-up with an Original Equipment Manufacturer (OEM), the OEM then should have met the above criteria in India. In addition, OEM should provide a guaranty for clustering and also for application software integration.

6. Bidder should have authorization letter from both server vendor.
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.

Item 5: Buy-back quotation of Intel Xeon:

- A. PROCESSOR(S): 2 X 2 NO'S OF QUAD-CORE INTEL 64-BIT XEON X5355 2.66 GHZ PROCESSORS WITH 8 MB L2 CACHE AND 133 MHZ SYSTEM BUS

- B. CHIPSET: INTEL 5000P CHIPSET, MCH + ESB2

- C. MEMORY: 2 X 8 GB 667MHZ DDR2 ECC FULLY BUFFERED DIMM (FB-DIMM) MEMORY, EXPANDABLE UPTO 32 GB (8 DIMM SOCKETS)

- D. HARD DISK: 2 X 2 X 250 GB SATA HOD.

- E. STORAGE CONTROLLER: ON-BOARD INTEL ESB2 SATA 3.0GBPS CONTROLLER WITH SUPPORT FOR RAID 0,1,5,10.

- F. NETWORK INTERFACE: ON-BOARD MELLANOX INFINIBAND MT25204AD, 4X DDR, 20GBPS CONTROLLER WITH SINGLE-PORT. ON-BOARD INTEL DUAL-PORT GIGABIT' ETHERNET CONTROLLER SUPPORTING 10BASE-T, 100BASE-TX, AND 1000BASE-T RJ45 OUTPUT WITH INTEL I/OAT TECHNOLOGY ENABLED.
- G. GRAPHICS CONTROLLER: ON-BOARD ATI: ES1000 CONTROLLER WITH 16 MB VIDEO MEMORY.
- H. EXPANSION SLOTS: 1 (X8) PCI EXPRESS SLOT
- I. I/O PORTS 2 RJ45 LAN PORTS, 2 USB 2.0 COMPLIANT PORTS
1 VGA PORT, 1 FAST UART 16550 SERIAL PORT.
1 EXTERNAL INFINIBA CONNECTOR.
- J. SYSTEM BIOS: 8MB FLSH EEPORM WITH PHONEX BIOS.
- K. FORM FACTOR: 2 NODES IN 1U RACK MOUNT CHASSIS.

Important Dates:

Date of issue of this inquiry 23rd of April 2013.

Last date for receiving quotations: 23rd May 2013*.

Contact Address:

Dr. Jayant K. Singh

Associate Professor

Department of Chemical Engineering

IIT Kanpur-208016, India

Office: +91-512-2597017

Email: jayantks@iitk.ac.in