

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR**  
Materials Science and Engineering

Enquiry NO: MSE/27/01/2015

Enquiry Date: 27<sup>th</sup> January, 2015

Submission Date: 10<sup>th</sup> February, 2015 by 16:00Hrs

**Formal quotations are invited for IBM/HP/Dell server.** Detailed specifications are given below.

The following points may kindly be noted and technical compliance should be clearly stated in the quotation.

- The vendor should have installed at least five HPC clusters/servers in reputed organizations in India in last five years. Details of these previous installations must be provided. In addition, vendor should provide a guarantee for application software integration.
- The vendor should give the power and cooling requirements for the cluster solution along with the proposal.
- Equivalent (or better) hardware/software can be allowed at the discretion of IIT. However, in such cases, the vendor must provide sufficient justification for the deviation from the specifications given here.
- Warranty period (at least 3-year parts, 3-year labor, 3-year onsite support with next business day response) should be mentioned.
- The quoted prices can be in INR or in valid foreign currencies (e.g. US Dollar). For INR quotations, delivery should preferably be up to IITK. For foreign currency quotations rates must be for CIF New Delhi. Sales Tax, VAT and any other applicable charges should be mentioned.
- Installation and maintenance charges should be mentioned.
- Quotations should be sent at the contact address (below) on or before 10<sup>th</sup> February 2015 in a sealed envelope. Technical and Commercial quote should be in separate envelop.
- Terms and conditions, and deviations should be clearly stated with the signature of the responsible person.

## SPECIFICATIONS

Technical Specification	
Server:	Quantity 1
Item	Description of Requirement
Chassis	1 U Rack Mountable
CPU	two numbers of latest generation Intel 10 Core E5-2650v3 processor
CPU L3 CACHE Memory	25MB L3 Cache
Motherboard	Intel® C610 Series Chipset
Memory	Minimum of 64 GB DIMMS (preferably 128 GB) scalable to at least upto 512GB, using DDR4 Load Reduced DIMM (LRDIMM) memory modules. Should be capable of identifying and reporting whether genuine OEM memory is installed. Each LRDIMM should work at 2133MHz, 1. 2V even after populating all the DIMMs in the channel.
Memory Protection	Advanced ECC with multi-bit error protection and memory online spare mode
HDD Bays	Up to 8 SFF/4 LFF max, HDD/SSD
Optical drive Bay	One optional optical drive bay to install DVD-ROM or DVD-RW .
Hard disk drive	At least 2x 600GB (preferably 2x1 TB) 10k SAS HDD
Controller	Embedded 6Gb/s SATA controller RAID controller with RAID 0/1/10/5 for SATA Disk. OR PCIe 3.0 based 12Gb/s Raid Controller with RAID 0/1/1+0/5/50/6/60/1 Advanced Data Mirroring/10 Advanced Data Mirroring with 4GB battery backed write cache (onboard or in a PCI Express slot)
Networking features	1. 1Gb 2-port network adapter supporting advanced features such as TCP segmentation offload, VLAN tagging, MSI-X, Jumbo frames, IEEE 1588, and virtualization features such as VMDQ.
Interfaces	Video - 1 4 USB ports (standard) Micro SD slot - 1
Bus Slots	Three PCI-Express 3.0 slots, atleast two x8 and one x16 slots
Power Supply	Redundant Power Supplies
Fans	Redundant hot-plug system fans
Graphics	Integrated Matrox G200 video standard 1280 x 1024 (32 bpp) 1920 x 1200 (16 bpp)
Industry Standard Compliance	ACPI 2.0b Compliant PCIe 3.0 Compliant PXE Support WOL Support Microsoft® Logo certifications USB 3.0 Support ASHRAE A3/A4
Embedded system management	Should support monitoring ongoing management, service alerting, reporting and remote management with embedded Gigabit out of band management port Server should support configuring and booting securely with industry standard Unified Extensible Firmware System should support RESTful API integration System management should support provisioning servers by discovering and deploying 1 to few servers with Intelligent Provisioning System should support embedded remote support to transmit hardware events directly to OEM or an authorized partner for automated phone home support
Security	Power-on password Serial interface control Administrator's password TPM 1.2 UEFI
Operating Systems and Virtualization Software Support	CentOS Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) Oracle Solaris Vmware
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

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