

**INDIA INSTITUTE OF TECHNOLOGY KANPUR  
OFFICE AUTOMATION DIVISION**

**To,**  
**Khaleeq Ahmad**  
**CC-228, Office Automation Division**  
**IIT Kanpur-208016**  
**[Khaleeq@iitk.ac.in](mailto:Khaleeq@iitk.ac.in)**  
**Contact No: 0512-2597352/9935602060**

**Enquiry No: OA/IITK/2012/0011**  
**Enquiry Date: 12 March 2013**  
**Closing Date: 19 March 2013**

Subject: Enquiry-cum-Quotation for Servers, KVM Switches and 42U RACKS

**Sealed quotations are invited for the following items (HP/SUN Oracle/IBM)**

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| 1 | Server                    | Specifications   | Qty |
|---|---------------------------|--|-----|
|   | Processor                 | Server should be configured with two eight core E5-2650 2.0Ghz or higher Processor , should support industry-leading Operating System platforms including Windows 2008,Linux, Suse Linux, VMware 5.X   | 2   |
|   | L3 Cache                  | 20 MB  |     |
|   | Chipset                   | Intel C600 series chipset  |     |
|   | Memory                    | Server should be configured with 128 GB of ECC DDR3 Memory and scalable up to 384GB memory   |     |
|   | DIMM Slots                | Server should support 24 DIMM Slots memory configurations  |     |
|   | Memory Property           | Server Memory should support ECC,Chipkill, memory mirroring and memory sparing.  |     |
|   | Hard Disk Drives          | Server should be configured with 6 * 600GB 10K SAS 6Gbps 2.5in Slim-HS HDD in RAID 5 scalable up to 16 drives. Server should support intermix of SAS & SATA.   |     |
|   | RAID Controller           | Integrated hardware RAID controller and should support hardware RAID 0, 1, 10. & Server should be configured with RAID5 with 1GB Flash.  |     |
|   | RAID Controller           | Server should support seamless up gradation of Raid controller from basic hardware RAID 0, 1, 10 functionality to Raid 5, 6, 60 along with optional battery backed cache upgrade of 512MB or 1GB Flash in order to help any time upgrade without changing the controller and zero data loss. |     |
|   | Optical Drive             | Server should be configured with single DVD-RW drive   |     |
|   | <b>Tape Drive</b>         | <b>Internal Tape Drive for backup to be configured with cartridge at least 80/160GB or Higher capacity.</b>  |     |
|   | Graphics Controller       | 16MB Memory  |     |
|   | Gigabit Ethernet Ports    | Server should be configured with four Gigabit Ethernet ports   |     |
|   | Storage Connectivity      | Server should be capable to support 2 Number of 8Gbps Fiber Channel adapters to connect to external storage whenever required.   |     |
|   | Additional Ethernet Ports | Server should support 2 Number of 10G Copper Ethernet Ports without consuming PCI slot   |     |

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| PCI Slots                  | Server should be configured with 3 Number of PCI slots scalable up to 5 PCI slots with dual processor configuration.   |
| Ports                      | Server should support 6 Number of external USB ports as well as 2 number of Internal USB ports for installation of Hypervisor key and internal tape support, also should support two Video ports and an Ethernet Management port                                   |
| Redundant Power Supply     | Server should be configured with Dual redundant power supplies with 80 PLUS Platinum certification   |
| Redundant Cooling Fans     | Server should be configured with minimum of Four hot-swap redundant cooling fans. Fans should be completely redundant so that failure of a fan should not impact the cooling inside the server chassis and provide availability for business-critical applications |
| Failure Alerting Mechanism | The server should be able to alert impending failures on server component to administrator in order to avoid any downtime on the server due to actual failure  |
| Management Functionality   | Should support integrated management , Server should be supplied with OEM Server Management software   |
| Form Factor                | 2U or more   |
| OS Support                 | Latest version of Microsoft windows, Red hat, Suse Linux, Vmware 5.x   |
| Warranty                   | 3 Years Comprehensive Onsite Warranty after successful installation.   |

| 2 | Server                 | Specifications   | Qty |
|---|------------------------|--|-----|
|   | Processor              | Server should be configured with one eight core E5-2650 2.0Ghz or higher Processor and scalable up to 4 Processors in the same enclosure, , should support industry-leading Operating System platforms including Windows 2008, Linux, suse Linux, VMware 5.X                                 | 2   |
|   | L3 Cache               | 20 MB  |     |
|   | Chipset                | Intel C600 series chipset  |     |
|   | Memory                 | Server should be configured with 64 GB of ECC DDR3 Memory and scalable up to 384GB memory  |     |
|   | DIMM Slots             | Server should support 24 DIMM Slots memory configurations  |     |
|   | Memory Property        | Server Memory should support ECC, Chipkill, memory mirroring and memory sparing.   |     |
|   | Hard Disk Drives       | Server should be configured with 4 * 600GB 10K SAS 6Gbps 2.5in Slim-HS HDD scalable up to 16 drives. Server should support intermix of SAS & SATA.   |     |
|   | RAID Controller        | Integrated hardware RAID controller and should support hardware RAID 0, 1, 10. & Server should be configured with RAID5 with 512MB Flash.  |     |
|   | RAID Controller        | Server should support seamless up gradation of Raid controller from basic hardware RAID 0, 1, 10 functionality to Raid 5, 6, 60 along with optional battery backed cache upgrade of 512MB or 1GB Flash in order to help any time upgrade without changing the controller and zero data loss. |     |
|   | Optical Drive          | Server should be configured with single DVD-RW drive   |     |
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| Additional Ethernet Ports  | Server should support 2 Number of 10G Copper Ethernet Ports without consuming PCI slot   |
| PCI Slots                  | Server should be configured with 3 Number of PCIe slots scalable up to 5 PCIe slots with dual processor configuration.   |
| Ports                      | Server should support 6 Number of external USB ports as well as 2 number of Internal USB ports for installation of Hypervisor key and internal tape support, also should support two Video ports and an Ethernet Management port                                   |
| Redundant Power Supply     | Server should be configured with Dual redundant power supplies with 80 PLUS Platinum certification   |
| Redundant Cooling Fans     | Server should be configured with minimum of Four hot-swap redundant cooling fans. Fans should be completely redundant so that failure of a fan should not impact the cooling inside the server chassis and provide availability for business-critical applications |
| Failure Alerting Mechanism | The server should be able to alert impending failures on server component to administrator in order to avoid any downtime on the server due to actual failure  |
| Management Functionality   | Should support integrated management , Server should be supplied with OEM Server Management software   |
| Form Factor                | 2U or more   |
| OS Support                 | Latest version of Microsoft windows, Redhat, Suse Linux, Vmware 5.x  |
| Warranty                   | 3 Years Comprehensive Onsite Warranty after successful installation.   |

| 3 | Server                      | Specifications  | qty |
|---|-----------------------------|---|-----|
|   | Architecture                | 64-bit RISC/EPIC/SPARC Processor technology. should support industry-leading Operating System platforms including Windows 2008, Linux, Suse Linux, VMware 5.X , Solaris and AIX     | 1   |
|   | Processor cores             | Min 8 64-bit 1.86 GHz or higher RISC cores.   |     |
|   | Performance                 | Server must be configured to deliver specint rating 2006 of 280.  |     |
|   | Cache                       | Min 4 MB per core or min 12 MB on chip.   |     |
|   | Memory                      | The System should be quoted with 8GB DDR3 memory/Core and should be scalable to maximum physical memory capacity of 128 GB.   |     |
|   | Disk                        | Min. 6 X 600 GB SAS HDD with min.10k RPM in RAID 5.   |     |
|   | Server Management           | An external management console for the management of the server and the partitions shall be provided. The management console shall be from the same OEM manufacturer as the server. |     |
|   | I/O Support                 | Should be scalable upto 5 PCI slots.  |     |
|   | HBA Card                    | Dual Port 8 GBps HBA Card   |     |
|   | LAN Cards                   | 8 * 10/100/1000 Mbps Gigabit Ethernet ports across two cards, per partition with no single point of failure.  |     |
|   | SAS controller              | Integrated SAS Controller   |     |
|   | CD ROM Drive                | DVD - ROM Drive   |     |
|   | <b>Tape Drive</b>           | <b>Internal Tape Drive for backup to be configured with cartridge at least 80/160GB or Higher capacity.</b>   |     |
|   | Power Supply & Cooling Fans | Hot-plug, Dual & Redundant,   |     |
|   | System management/          | The offered servers should support continuous error checking of the system and logging which is to be monitored by the service processor.   |     |

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| RAS                | Disks, power supplies, fans should be hot pluggable components.                          |
|                    | LED indicators to identify failed components and indicate location of failed components. |
|                    | Rack mountable, server should have Redundant, hot swappable, power & cooling units.      |
| System Form Factor | Space Optimized, rack mounted design.  |
| Operating System   | 64 bit Unix Operating system   |
| Warranty           | 3 years onsite comprehensive Warranty after successful installation.                     |

| 4 | Storage  | Specifications   | Qty |
|---|--|--|-----|
|   | <b>Operating System &amp; Clustering Support</b> | The storage array should support industry-leading Operating System platforms including Windows 2008, Linux, Solaris and AIX Offered Storage Shall supports all operating systems in Clustering.  |     |
|   | <b>Capacity &amp; Scalability</b>                | The Storage Array shall be offered with 12*600 GB SAS 15K rpm drives.  |     |
|   | <b>Scalability</b>                               | It should support scalability up to 192 drives.  |     |
|   | <b>Front-end Ports</b>                           | Offered Storage subsystem shall be provided with a total of 8 number of FC ports running at 8Gbps speed on dual controller storage system.   |     |
|   | <b>Supported Host connectivity</b>               | Four interface options (SAS, iSCSI/SAS, FC/SAS):<br>Four or eight 6 Gbps SAS ports<br>Eight 8 Gbps Fiber Channel ports and four 6 Gbps SAS ports<br>Eight 1 Gbps iSCSI ports and four 6 Gbps SAS ports<br>Four 10 Gbps iSCSI ports and four 6 Gbps SAS ports |     |
|   | <b>Back-end</b>                                  | Offered Storage subsystem back-end engine shall be running on latest SAS (6Gbps) loop speed.   |     |
|   | <b>Architecture</b>                              | The storage array should support dual, redundant, hot pluggable, active-active array controllers for high performance and reliability  | 1   |
|   | <b>No Single point of Failure</b>                | Offered Storage Array shall be configurable in a No Single Point of configuration including Array Controller card, Cache memory, FAN, Power supply etc.  |     |
|   | <b>Disk Drive Support</b>                        | Offered Storage Array shall support minimum 300 /450/ 600GB/900GB hot-pluggable SAS hard drives along with Near line (1000 GB or 2000GB) drives. Intermixing of drives should be supportable.  |     |
|   | <b>Copy features supported</b>                   | Flash Copy (256)<br>Volume Copy (255)<br>Remote Mirroring through Fiber Channel host ports (16)  |     |
|   | <b>Cache Offered</b>                             | Storage Array shall be given with Minimum of 1GB cache per controller in a single unit and shall be upgradable to 2 GB per controller. Cache shall be backed up in case of power failure for certain time either using batteries or capacitors.              |     |
|   | <b>Raid Support</b>                              | Offered Storage Subsystem shall support Raid 0, 1, 1+0, 3, 5, 5+0 and Raid 6 with Dual Parity Protection   |     |
|   | <b>Warranty</b>                                  | 3 years on site comprehensive after successful installation.   |     |

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| 5 | Racks, KBD and Monitor | Specifications  | Qty |
|---|------------------------|---|-----|
|   | Warranty               | 42U OEM server Rack, Keyboard and LCD TFT Monitors<br>3 years onsite comprehensive warranty after successful installation | 2   |
| 6 | KVM Switch             | 16 Port KVM switches  | 4   |
|   | Warranty               | 3 years onsite comprehensive warranty after successful installation   |     |

### Terms and Conditions

- All quotation must reach undersigned by 19-mar-2013 , 5:00PM
- Quotation must be valid till 30-Apr-2013
- Onsite comprehensive Warranty for 3 years from date of installation.
- If the bidder is an authorized partner or service provider of an OEM, an OEM authorization letter must be submitted
- Quantities may vary (increase/decrease) at the time of order
- Quotations shall be submitted in two parts  
Technical Bid- should contain the technical details of the product of all the line items including Tax (VAT etc) if charged extra.  
Commercial Bid- should contain the prices for all the line items separately
- Send the technical details of product of the vendor.
- Bidder must not be blacklisted in any institute in India
- Quantities may increase or decrease
- Payment Terms: 90% on Delivery and 10% on successful installation
- Please quote the rate for each item.
- Rack should be from the same OEM preferably with blanking panel and 3 portioning tray in addition to Key Board Tray.
- Delivery within 6 wks
- IIT is exempted from excise duty, CD applicable to IIT Kanpur is 5.15%
- Minor modification can be accepted at the soul discretion of IIT Kanpur

  
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