Technical Specifications for the GPU Computing Cluster and Storage Nodes

Details 1: GPU Node

Processor(s)	2x Intel Xeon Processor 24Core 3.00 GHz35.75M Cache
Chipset	Intel C621 chipset
RAM	12 * 64GB 2933MHz 2Rx4 DDR4 ECC RDIMM
HDD	4 x 1.92TB SSD- 2.5"
Drive Bays	Total 16 Dive Bays, (Out of them 8 NVME Bays and 2NVMe Based M.2SSD
RAID	Hardware SAS 12Gbps Raid controller with 2GB cache memory to support RAID 0,1, 5, 10 and 6
Interconnect	Low Latency InfiniBand 100Gb/s Dual Port IB Controller with cable 3M
Graphics	Onboard Server Grade Graphics with dedicated Graphics Memory
Network	2 x 10 GbE Ethernet Port and1 RJ45 Dedicated IPMI LAN port
GPU	8 * Tesla V100 with 300GB/s NVLINK
Management	IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Exp Slots(s)	4 PCI-E 3.0 x16 (GPU tray for GPUDirect RDMA), 2 PCI-E 3.0 x16
Ports	2x USB 3.0, 1x VGA, 1 Serial, 1 x Rj 45 for IPMI,1x COM Port
Chassis	Rack- 4U
P. Supply	2200W Redundant (2+2) Power Supplies; Titanium Level (96%+)
Operating System	Cent OS to be installed Should support CentOS and Ubuntu
Warranty	3 Years Comprehensive onsite Warranty (OEM Should have service and support team in India)
Training	2 Days HPC/DL training should provide

Details 2: Switch

Switch-IB(TM) 2 based EDR InfiniBand 1U Switch, 100G with 36 ports, 1U form factor rack mounting, 36 QSFP, 2 Power Supplies (AC), unmanaged, standard depth, Rail Kit, Mellanox 2 Year Extended Warranty for a total of 3 years Bronze for SB7890 Series

Details 3: Storage Node

Processor(s)	2 x Intel® Xeon® Silver 4215R Processor (11M Cache, 8C/16T, 3.20 GHz)
Chipset	Intel C240 series Chipset or Better
RAM	192GB (12*16)DDR4-2933 2RX8 LP ECC RDIMM
HDD	30 x 6 TB, 7200RPM SAS12Gbps, hot-plug HDDs
SSD	4 x 3.84TB SSD 3DWPD Rev.2
SSD –OS	2x 480GB SSD Drive
Drive Bays	Total 36 Dive Bays, (Out of them 4 NVME Bays)

RAID	Hardware SAS 12Gbps Raid controller with 2GB cache memory to support RAID 0,1, 5, 10 and 6
Interconnect	InfiniBand 100Gb/s Dual Port IB Controller with cable 3M
Graphics	Onboard Server Grade Graphics with dedicated Graphics Memory
Network	2x 10GBase-T LAN ports
Management	IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Exp Slots(s)	Min7 PCI-E slots for add on card/ IO Card population
Ports	2x USB 3.0, 1x VGA, 1 Serial, 1 x RJ45 for IPMI
Chassis	Rack- 4U
P. Supply	1200W Redundant Power Supplies, 80 Plus Titanium Level certified
Warranty	3 Years Comprehensive onsite Warranty

Additional Requirements:

1. Vendors should provide continuous technical support and maintenance of equipment.

2. Vendors have to provide warranty for a minimum of one year

3. Vendors must have sufficient experience in supplying equipment in reputed organizations for research purposes. They must provide references like Purchase order Copies of end users whom we can contact for their experience with the supplied machine. Performance Certificate and experience details of the end users will also be used as a criterion for the selection of bids that meet technical requirements.

4. Vendors must provide detailed documentation for the equipment.

5. Vendors may be called to visit and give presentation/demonstration on the equipment after opening the technical bid. They need to provide the approximate date for this presentation in the bid. The time period for this presentation will be intimated at a later date

6. Vendors must provide training to our technical staff for using the equipment.

7. All the expenses for installation, training and post sales technical support will be borne by the vendor