High Performance Compute + Storage Server

Type-I Node (Slave Node)- Four Nos.	
Processor(s)	2x AMD EPYC™ 7452 Processor 32-core 2.35GHz 128MB Cache (155W)
Chipset	(SoC)
RAM	16 * 64GB 2666MHz DDR4 ECC LR-DIMM, Free 16DIMMS
HDD	6 x 16TB SAS 3.0 12.0Gb/s 7200RPM - 3.5", Free 2 Bays
NVMe SSD	2 x 3.8 NVMe (4.0TB U.2 SSD)
M.2 SSD	2 x 1000GB NVME M.2 SSD
Drive Bays	Total 12 Drive 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	single-port EDR IB (100Gb/s) with 2M cable
Network	Dual 10G LAN ports Onboard port
Monitor	None
KBD+Mouse	None
GPU	Server should have free slots to add 2*NVIDIA V100 GPU in future
Management	IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Exp Slots(s)	8 PCI-E slots for add on card/ IO Card population
Ports	2x USB 3.0, 1x VGA, 1 Serial, 1 x RJ 45 for IPMI
Chassis	Rack- 2U
P. Supply	1600W Redundant Power Supplies, 80 Plus Titanium Level certified
Warranty	5 Years Comprehensive onsite Warranty

Type-II Node (Storage Node = Master) Qty- 1 Unit

Processor(s)	2x AMD EPYC 7452 2.35GHz/3.35GHz, 32C/64T
Chipset	SoC
RAM	256 GB (8x32GB) DDR-4-2400 or Higher, Free 8DIMMs
HDD	16 x 14 TB, 7200RPM SAS 12Gbps, hot-plug HDDs (Total 196TB after RAID), Free 4 Bays
SSD	4 x 3.84 TB SATA 6Gb/s3DTLC 2.5" 7mm 3DWPD Rev.2 2 x 240GB SSD 2DWPD 2.5"
Drive Bays	Total 24 Drive Bays chassis with expander backplane
RAID	Hardware SAS 12Gbps Raid controller with 2Gb cache memory to support RAID 0,1, 5, 10 and 6
Interconnect	Single-port EDR IB (100Gb/s) with 2M cable
Network	Dual 10G LAN ports Onboard port
Monitor	None
KBD+Mouse	None
GPU	NVIDIA Quadro P4000 8 GB DDR5 PCI Express 3.0 x16
Management	IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Exp Slots(s)	5 PCI-E slots for add on card/ IO Card population
Ports	2x USB 3.0, 1x VGA, 1 Serial, 1 x RJ 45 for IPMI
Chassis	Rack- 4U
P. Supply	1200W Redundant Power Supplies, 80 Plus Titanium Level certified
Warranty	5 Years Comprehensive onsite Warranty

General Conditions

1. The bidder must have supplied, installed and integrated at least five similar systems across India, preferably in IIT Madras/other IITs/ R&D labs over the last three years. Please provide a list of your installations and submit an "acceptance certificate" from these institutions.
2. Delivery time for the Server (Slave node, Storage node), from the date of issue of PO, should be indicated by the vendor.
3. The period of warranty will be for **five years (comprehensive on-site)** from the date of acceptance.
4. Vendor should install CentOS operating system, TORQUE job scheduler and Lustre file system in the server.

5. Vendor should install and configure the cluster.
6. The purchase committee reserves the right to reject bids based on adverse feedback received from past users.