



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**MATERIALS MANAGEMENT DIVISION**  
Powai, Mumbai 400076.

Ref No.1000052078

Rfx No. 6100002693

**Technical Specifications : GPU Server (Qty : 1)**

Sr. No	Item Description	Detailed Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1	<b>GPU Server</b>			
1.1	Processor	Two processors per system with each socket having the following: Processor has to be at least PCIe gen 4.0 compliant. Processor Physical Cores should be minimum 64 with 128 Threads with minimum 250MB Cache At least 2.0 GHz base frequency per core TDP per socket must be within 300 W.		
1.2	Memory	16 Memory DIMM Slots Supporting DDR4 Server Memory Total minimum 1024GB ECC Registered DDR5 memory with system running frequency of 4800 MHz Every memory channel from the processor(s) should be populated in a balanced configuration.		
1.3	Storage	Each server should have 8 Hot-swap 3.5"/2.5" SAS/SATA drive bays. The Server should be populated with Hot pluggable 1No. of 1.92TB SATA SSD and 3Nos. of 2TB Enterprise SATA HDD Integrated Two Nos. of M.2 NVMe slots should be available for Future Expansion of internal storage		
1.4	Network	Dual 10G RJ45 Ports should be available for future expansion		

1.5	PCI expansion Free	3 Nos. Pcie Gen4 X16 Slots and 1No. Pcie Gen x8 Slots		
1.6	External Ports	Following minimum number of external ports should be available in the system 1 x VGA ports 2 x USB 3.0 ports 1 x dedicated 1GbE RJ45 port for IPMI		
1.7	Co- Processor/ Accelerator	Each server has to be populated with 1 number of accelerators with a provision to install one more in future. Each accelerator should have: 1. 141GB or more GDDR6 with ECC 2. 4.8TB/second or higher memory bandwidth 3. 16xPCIe Gen5 interface interconnect each capable of 128GB/s or higher bidirectional throughput 4. 16896 accelerator cores or more 5. 60 TFLOPS FP32 (peak) performance 7. Max power consumption of 700 W 8. Passive cooling support 9. Virtual accelerator support		
1.8	Chassis	Appropriate Chassis (Maximum 4U) with rail-kit. Supplied chassis has to be approved by the system board OEM. Chassis should be populated with a maximum number of redundant cooling fans that can be accommodated in the chassis and the cumulative air flow should be sufficient to take away the heat generated at peak load with fully populated hardware.		
1.9	Server Management	Dedicated IPMI 2.0 compliant management 1 Gbps ethernet port having support for 1. System health monitoring 2. PMBus and SMBus monitoring for redundant power supply and storage backplane 3. Event log accounting and monitoring changes in the server hardware and system configuration 4. Virtual media over network and Virtual KVM (KVM over IP).		

		<p>5. Agentless management using the out - of - band remote management port</p> <p>6. At least 128 bit SSL encryption and secure shell Version 2 support.</p> <p>7. Should provide support for AES and 3DES on browsers.</p> <p>8. Should provide remote firmware update functionality.</p> <p>9. Should provide support for Java free graphical remote console.</p> <p>10. IPMI must have graphical interfaces accessible to qualified users only and through browsers and give access to all of the above.</p> <p>11. All required licenses (if any) to use IPMI features</p>		
1.10	Power Supplies	<p>Minimum 80+ 2700W Platinum Certified Redundant Power Supply.</p> <p>Power supplies should be only of the make/model approved for the motherboard.</p> <p>Power supply has to be configured in N+1 redundancy The system should sustain in the occasion of failure of one power supply.</p> <p>Power Management Bus (PMBus) support should be provided and status information must be available via IPMI</p>		
1.11	Certification	<p>The server and all its components should be verified and recommended by the system board manufacturer by means of compatibility list. The specifications of critical components such as CPU, accelerator, memory and disks should be verifiable from the websites of respective manufacturers.</p>		
1.12	Power Cord and other cables	<p>Power cable should have IEC 320 (male-female) connectors mathing the peak-load rating of the power supplies. All the network cables required are to be supplied in appropriate numbers and of appropriate specification.</p>		
1.13	OS Support	<p>The system should support the following minimum operating systems without any deviations: Windows Server 2019</p>		

		<p>Windows Server 2022</p> <p>Red Hat Enterprise Linux server 8.6, 8.7, 8.8, 9.0, 9.1 &amp; 9.2 x64</p> <p>SUSE Linux Enterprise server 15 SP4 &amp; 15 SP5</p> <p>Ubuntu 20.04.5 LTS x64, 20.04.6 LTS x64, 22.04 LTS x64, 22.04.1 LTS x64, 22.04.2 LTS x64 &amp; 22.04.3 LTS x64</p> <p>VMware ESXi 7.0 Update 3i, ESXi 8.0, ESXi 8.0 Update 1,</p> <p>Citrix Hypervisor 8.2 LTSR CU1</p>		
1.14	Additional Requirement	<p>The main-board of the system should be from the same brand of the supplied entire system. The main-board PCB should be "permanently printed" with the system brand markings but not through pasted stickers or removable markings. Evidence towards the same needs to be submitted along with the bid.</p>		
1.15	Warranty of the system	<p>3 years comprehensive on-site advance replacement warranty. The warranty should be trackable online on the OEM website through system serial number providing detailed system hardware configuration report.</p>		