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

Ref. PR No. 1000059287 Rfx. No. 6100003222

Item Description: - Technical Specifications for GPU SERVER

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Sr No	Item Description	Detailed Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1	**Processor**	Dual Socket Server System with **One** processors populated having the following: ● Cores: 64 cores per processor, hyper-threaded ● Processor Base Frequency: 3.2 GHz or higher per core per processor ● Max Boost Clock: Up to 4.4 GHz per core per processor ● Cache Size: 256 MB total L3 cache per processor ● Memory Support: **DDR5 up to 6400 MT/s** (Gen 5 compatible), 12 memory channels ● CPU Socket: SP5 ● TDP: 360W (configurable TDP 320-400W)		
2	**Motherboard**	- Supports minimum 2 processors (dual CPU sockets) - Memory DIMM Slots: 24 DIMM slots, supporting **DDR5 5600 MHz** RDIMM and LRDIMM (or more as processor supports) - PCeI Expansion Slots: 11 x PCIe 5.0 slots 2 x PCIe x8 Gen 5 slots 10 x PCIe x16 **Gen 5 slots** (should support 8 GPUs/Accelerators) - Should support **web-based** BMC/IPMI **(with all the required Licences)**		

3	**Memory Option**	● 24 Memory DIMM Slots Supporting DDR5 Server Memory ● Total minimum **256GB** ECC Registered DDR5 memory with system running frequency of 5600 MT/s or more ● Every memory channel from the processor(s) should be populated in a balanced configuration.		
4	**Storage**	● The server should have 8 Hot-swap SAS/SATA 3.5" and 4 Hotswap 2.5" U.2/U.3 NVME drive bays. ● For OS 2 x 500GB M.2 NVME in Raid 1 configuration to be used and a hardware raid controller is must for M.2 NVME ● Hotswap bays to be populated with 2 Nos of 2TB Enterprise SATA SSD		
5	**Network**	Onboard 4 x 10GbE LAN ports and 1 x Management Port		
6	**Chassis with PSU**	● 4U Chassis with support for minimum **8** GPUs/Accelerators ● 16 x 3.5"/2.5" Front Hot-swap Storage Bays ● Efficient cooling with hot-swappable redundant fans (*at least 10 fans*) and dedicated air tunnels. ● 3200W (3+1) Redundant 80 PLUS Titanium Power Supply **with required number of cables.** ● Power supplies should be only of the make/model approved for the motherboard. Power supply has to be configured in N+1 redundancy ● The system should sustain in the occasion of failure of one power supply. Power Management Bus (PMBus) support should be provided and status and information must be available via IPMI ● Dimension should not be more than 800mm x 440mm x 175mm With a proper railing kit for mounting.		
7	**Accelerator**	The server has to be populated with **1** number of accelerators and there should be provision to install a minimum 7 more GPUs in future. Each accelerator should have: Accelerator Memory = 96 GB GDDR7 with error-correcting code (ECC) Memory Bandwidth = 1597GB/s Number of CUDA Cores or equivalent = 24,064 System Interface = PCIe 5.0 x16 Power Consumption = 300W Thermal Solution = Active OR Passive		

8	**PCI expansion Free**	Minimum 8 Nos.of Full Height Half Length PCIe Gen5 X16 Slots to populate 8 Dual Width GPUs		
9	**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		
10	**OS Support**	The system should support the following minimum operating systems without any deviations: ● Red Hat Enterprise Linux server 8.6, 8.7, 8.8, 9.0, 9.1 & 9.2 x64 ● SUSE Linux Enterprise server 15 SP4 & 15 SP5 ● Ubuntu 22.04.2 LTS x64 & 22.04.3 LTS x64, 24.04 LTS x64 or later		
11	**Server Management**	Dedicated IPMI 2.0 compliant management 1 Gbps ethernet port having support for ● System health monitoring ● PMBus and SMBus monitoring for redundant power supply and storage backplane ● Event log accounting and monitoring changes in the server hardware and system configuration ● Virtual media over network and Virtual KVM (KVM over IP). ● Agentless management using the out - of - band remote management port ● At least 128 bit SSL encryption and secure shell Version 2 support. ● Should provide support for AES and 3DES on browsers. ● Should provide remote firmware update functionality. ● Should provide support for Java free graphical remote console. ● IPMI must have graphical interfaces accessible to qualified users only and through browsers and give access to all of the above. ● OEM based Advanced License version for Remote Presence of the server shall be provided from the respective server OEM ● The server should have pre-failure alerts for Processors, Memory and Hard Disk drives along with other important components Provision for Hardware LED Indication should be available for the Drive Activity, Drive Failure, Drive Locator		

12	**Additional Requirement**	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.		
13	**Warranty**	● Minimum 3 years on site Comprehensive Warranty with 24 X 7 with 6 hours or better response time. The warranty should be trackable online on the OEM website through system serial number providing detailed system hardware configuration report. ● The customer shall be free to procure and install OEM-certified compatible components from any vendor for future upgrades without voiding or adversely affecting the existing server warranty. No vendor lock-in shall be imposed.		
14	**Environment compliance**	RoHS compliance		
15	**Data-Sheet**	It is mandatory to submit the technical data-sheet of the offered system along with the bid. The datasheet should match the technical compliance documents of bid, failing which the bid shall be disqualified without any query.		
16	**MII (Make in India)**	It is mandatory to submit declaration of MII(Make in India) content with proof		
17	**MAF & BOM**	The Vendor must provide Manufacturer Authorization Form (MAF) & technical Bill Of Material (BOM) with the quote		
18	**MAC Address**	● The MAC address OUI (Organizationally Unique Identifier) of the servers, and any other hardware required to make the system complete must be registered in the name of quoted OEM of the product. ● Self-declaration by OEM on their letter head signed by the authorized signatory. The same will be checked on: https://regauth.standards.ieee.org/standards-raweb/pub/view.html#registries		

Terms and conditions:

Bidder Eligibility	• Only Branded product either Make in India or leading OEMs will be preferred. locally assembled units without standard Certifications can be rejected • Specific Brand with model number along with All Certifications as listed in the tender documents are mandatory and please submit Test Reports for Validation • Bidders with past experience of dealing with IIT BOMBAY & such other institutions having their registered Office and service Centre in Mumbai. • Bidders should submit a list of engineers who will be available for Instant Support. Knowledge of Linux is essential and please highlight your team accordingly • Bidder should submit ISO certifications along with other OEM Certifications • The bidder should submit its annual turnover document for last 3 financial years, along with copies of its last 2 purchase orders for similar or higher value supplies. The bidder must have average turnover of at least 30 lakhs during last 3 financial years. • The bidder must provide basic on-site training on server operations, including basic troubleshooting and BMC alert monitoring and handling. • Unsolicited bids will not be accepted.
Installation	The vendor has to **install the OS and configure the server on IIT Bombay** premises for optimum performance and during the installation, remote assistance will not be entertained.
Registered office and service center	In Maharashtra, preferably in Mumbai.
Training	On Site.
Technical Person's Details	Name: Rohan Pandit Email ID: sysad@minds.iitb.ac.in Phone: 02221593756
Delivery period	within 15 days.
Delivery Address	Room No. KR323, 3rd Floor KReSIT Building, IIT Bombay, Powai , Mumbai 400076
Delivery receiver's details	Name: Suraj Jadhav Email ID: office.minds@iitb.ac.in Phone No.: 02221593778

Delivery on site	The vendor shall provide prior intimation of the delivery date and time, and shall ensure that the equipment is delivered and placed diligently at the designated laboratory address. The vendor may visit the lab premises prior (with intimation and permission) to see and estimate before submission of the quotation.