INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

Powai, Mumbai 400076.

Ref. PR No. 1000044930 **RFx No. 6100002031**

Technical Specification of Workstation

S. No.	Components	Specification	Technical Compliance (Yes/No)	Additional Information (If any)
1	Processor	Dual 32 Core CPUs of latest generation with minimum of 2.5 GHz of Base Clock & 4.1 GHz of Boost Clock with min. 1.87 MB of cache per physical core.		
2	Chipset	Compatible Latest Chipset		
3	RAM	RAM Minimum 512 GB of DDR5 ECC REG RAM of latest generation & highest frequency supported by the above CPU. RAM should be scalable to minimum 1 TB without discarding the current 512 GB of RAM being quoted.		
4	SSD (OS)	2x 1.92TB SATA 2.5" SSD		
5	SSD (Data)	4x 10TB 3.5" enterprise HDD		
6	Raid	SAS Gen-3 12 Gbps H/W Controller RAID 0,1,5,6,10 (1 GB)		

7	NIC (Onboard)	Dual 10G Base-T RJ45 Ethernet LAN Ports		
8	Management	IPMI 2.0 with virtual media over LAN & KVM over LAN		
9	Video	ASPEED AST2600 BMC (Onboard)		
10	Exp. Slots	4x PCIe 5.0 x16 (double-width) slots, 3x PCIe 5.0 x16 (single-width) slots		
11	GPU	The system should have the capability to have 4x dedicated GPU Card with the below features: - GPU Memory = 48GB GDDR6 Memory Bandwidth = 960GB/s Error Correcting Code (ECC) = Yes CUDA Cores / Stream Processors = 18,176 System Interface = PCIe 4.0 x16 Power Consumption = 300W Thermal Solution = Active		
12	Preinstall application	Kubyts, GCC, Compilation Environment Setup, CPU Optimized Tensor Flow, Pytorch, Theano, Caffe, Text2speech, Mxnet, CuDNN, Keras MKL, DNN		
13	System utility with designing Module Frameworks Preloaded	System should be preloaded with Precompiled frameworks (CPU & GPU optimized MxNet, CuDNN, Caffe and Pytorch) to be supplied with the system, license must be in named of Customer organization, Data sheet of utility must be submitted with bid.		
14	Job Scheduling Utility License	Unified system management/monitoring toolset for configuration, diagnosis and management of the system. Toolset/Manager must be capable of supporting package and image-based provisioning, intuitive web interface for managing and customize the node and tool set with provisioning, monitoring and reporting capabilities. With JOB scheduling		

		capabilities on single node for CLI and GUI based end user applications. S/W utility must be from the H/W OEM and not from a third-party vendor. Product datasheet with demonstration details must be shared.		
15	Ports	1x USB Type-C (rear), 5x USB 3.0 (3 rear + 2 front), 1x VGA, 1x Management		
16	Chassis	Full -Tower cum 4U Rackmount (8x 3.5"/2.5" hot-swap SAS/SATA drive bays)		
17	P. Supply	2600W (1+1) Redundant Titanium Level Certified Power Supplies		
18	Security	TPM 2.0 Module Included		
19	OS	Open-Source Linux		
20	OS Certification:	Windows / RHEL / SUSE. Bidders have to submit a certificate from OEM mentioning this.		
21	Warranty	5 Years On-Site		
22	Declaration from Bidder and OEM	Bidders have to submit a declaration stating that all the above applications will be preloaded and container platform of same OEM as the system will be provided. Further, in the same declaration bidders have to also mention that they will be ready to install any and all applications required by the user department apart from the above mentioned applications. List of additional applications required will be shared with the winning bidder/supplier only.		
23	Manufactures Authorization format	Bidders should submit authorization form from GPU supplier		

“Additional Terms and Conditions

1. All the vendors are requested to participate as per the tender document and provisions of public procurement (preference to Make-in-India), order no. P-45021/2/2017 -PP (BE-II) as amended on 16th September 2020. **Also, if any make, brand or model is mentioned in the technical specification of any bid, that mention should be considered as a reference to understand the technical specification, and is not a violation of public procurement (preference to Make-in-India) order no. P-45021/2/2017 -PP (BE-II) & GFR 2017.**

2. Secondly, if there are any benchmarks mentioned in the tender document, such benchmarks would be standard, well-known and public. These benchmarks are intended to establish technical specifications conformity and performance guarantee as required for research.”

Hence, we have clearly called out that if a reference is made to any make/benchmark, it is only for the sake of better understanding for the bidder. Hope this answers your raised queries.

3. Bidder should provide list of Customer reference where they have carried out similar work in Academic institution/ Government Agencies / Govt. Department / Quasi Govt. Dept. / PSU / Board / Council or similar organization.

4. Bidder should attach BIS license document of the system. The BIS Certificate should clearly mention the exact model number or atleast series of the quoted server.

5. Bidder should have the required expertise of installing various frameworks and bidder will have to install all the applications needed by the user department. Self-declaration in this regard need to be submitted by the bidder.

6. Bidder need to submit Service Level Agreement (SLA Escalation Matrix) with names and details of Support Person on every stage.

7. Bidder should have the required expertise of installing various scientific applications used in the HPC Community. End user certificates in this regard have to be submitted.

8. Scope of work for the supplier (winning bidder) will include Supply, installation & commissioning of the system including OS and Scientific Application installation.

9. Bidders should not be blacklisted by any Central/State Govt. Bodies and Academic/Research Institutes in the last 5 Years. A notarized declaration should be submitted in this regard.

10. Bidders have to compulsorily submit the reports of the benchmark results asked in the bid. Without these reports, the bid will be rejected and will not be further considered.

11. Offers containing older generation systems will be summarily rejected. Only latest systems have to be quoted.