Tender document

Indian Institute of Technology, Kanpur
Department of Biological Sciences & Bioengineering

Sub: Enquiry letter for Computational GPU System

Department Indent No. IITK/BSBE/BA/2021-22/NC-02

Indenter PF No. 5505

Opening Date: 24.08.2021

Closing Date: 03.09.2021

Sealed envelopes are invited for the above mentioned Subject as per the technical specifications given below:

Performance Benchmark	Spec_fp_2017_rate_base- score>=240. Spec_Int_2017_rate_base- score>=300. Log reports must also be submitted along. High Performance Linpack peak performance score per socket must be >=1.15TFlops
Processor(s)	Two units of x86 Architecture based CPUs, each with **Intel® Xeon® Gold 6248R Processor 24 physical Cores**. Supports DDR4 2933 or better memory. With AVX-512 instruction set supported. Clock speed >3.0GHz.
Chipset	Intel C622
Memory/RAM	At least **384GB (12 x 32 GB)** DDR4 ECC Registered with 16 DIMM slots
RAID Controller	12Gbps RAID controller that supports RAID 0, 1, 5, 6, 10, 50 and 60 levels with 4Gb cache.
Accelerator	1 x Computational GPUs. Each with on board GPU Memory: **NVIDIA RTX 5000 16GB, 3000 or more CUDA Core**s, memory bandwidth >=440GB/sec, Tensor cores 380 or more cores
Hard Disk Drives	**12 TB SATA×4 Numbers + 1 x 960GB SSD Drive** SPEED = 7.2K rpm TYPE = SATA
HDD bays	8 x 3.5" hot-swap SAS/SATA drive bays
Network	2 × 1Gbps Ethernet port with Preboot Execution Environment (PXE) boot capability
NIC	2 RJ45 10 G-Base-T ports, 1 RJ45 dedicated IPMI LAN port
Graphics controller	A dedicated 1 x VGA port available thru additional controller or on board
Ports	2 x USB 2.0, 4 USB 3.0 or higher ports, 1 VGA port, 1 x M.2 Port, 2 COM + 1 TPM header
	With Preboot Execution Environment (PXE) boot capability.

Interconnect features	SR-IOV Implementation
	Packet filtering with advanced support
	VXLAN supported wither thru S/W or H/W
	Counters available for Remote N/W Monitoring
	Remote boot supported with iSCSI
	Jumbo frames supported for minimum 9KB or more
	Preboot Execution Environment from day one
	Allowed to have load balancing among multiple processing cores / physical CPUs
I/O slots	4 PCIE 3.0 x 16 and 2 PCIE 3.0x 8, 2 PCIE 3.0 NVMe x4 internal ports
P. Supply	865W 80-Plus Certified High-Efficiency Power Supply (88% efficiency)
Cooling	4 x 5000 RPM Hot-swap PWM cooling fans
Security	Security of the system is based on the protection and secrecy of the cryptographic info, especially against reading out or manipulation of the key material.
	Tick counter with tamper detection
	Protection from Dictionary Attack
	Must support RSA Secure ID
	Encrypted File System
	RSA Compliant embedded software
	Root of Trust Management
Operating System	Ubuntu OS 20.04.2.0 LTS
OEM Utility	GUI based scheduling management S/W for configuration, diagnosis and management of the system. Toolset/Manager capable of supporting image-based provisioning, intuitive web interface for managing and customize the node to max, and tool set with provisioning, monitoring, and reporting capabilities. License must be issued in the name of customer organization.
Peripherals	1 x 24" FHD (1920x1080) IPS Panel, 240 Hz or higher Refresh Rate Monitor, USB Keyboard and Optical Mouse.
Regulatory compliance	OEM must not be blacklisted by any govt. organization in the past.
Warranty	3 years onsite warranty. Physical on-site warranty services including visits by technical experts for maintenance
Form Factor	Tower
Market position	The OEM for the proposed Workstation must be in Bureau of Indian Standards list of registered OEMs/Brands since last three years or more.
ISO Certification	Manufacturing facility/brand should be ISO 9001, ISO 14001 certified.
Installation	Installation, Testing, Training and Implementation must be including in offer.
	(Installation Should be done by OEM certified engineer)

Terms & Conditions:-

Warranty:- 3 Years Onsite warranty

Delivery:- Within 4 weeks from the date of Hard Copy of Purchase Order received.

Note: The quotation should reach the undersigned on or before 5PM on 3ʳᵈ September 2021.

Indentor Details:

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