Request for Supply and Installation of High End Computer Cluster (Master Node, Compute Node and GPU Cards)

Proposals are invited, in two-cover format, from bidders for high-end GRU and CPU based Computer Cluster with the following specifications.

Technical Specifications:
Specification of Head/Master Node:

Master Node - 1 No	
Processor	1 x AMD EPYC™ 75xx with 32C / 64T 128MB Cache with speed 2.6 or higher (Or Equivalent Intel 32C/ 64T)
Chipset	System on Chip
RAM	4 x 32GB DDR4 3200 ECC Reg – Total 128GB (Max 16 DIMM)
Hard Drives	8 x 8TB SAS 3.5" 7.2K on RAID 6 (Usable Space 42TB)
HDD Bays	12 Hot-swap 3.5" SATA3/SAS3/NVMe drive bays
RAID	Hardware RAID controller to support RAID 0/1/5/6/50/60 with 4GB Cache
Expansion Slots	4 PCI-E 4.0 x16 (FH, 10.5" L) slots;
100G EDR	ConnectX-6 VPI Adapter Card HDR100/EDR/100GbE Single Port with 2 Mtr Cable
NIC	2 x Intel® i350 GbE Controller
IPMI	Integrated IPMI 2.0 + KVM with dedicated LAN
OS	Open Source Cent OS
Form Factor	2U Rackmountable with 920W Redundant Platinum Level Power Supplies

Specification of each Compute Node:

Compute Node	
Processor	1 x AMD EPYC™ 7513 2.6Ghz 32C / 64T 128MB Cache (Or Equivalent Intel 32C/ 64T)
Chipset	System on Chip
RAM	8 x 32GB DDR4 3200 ECC Reg – Total 256GB (Max 16 DIMM)
Hard Drives	1 x 960GB SATA SSD 2.5" Ent <1 DWPD>
HDD Bays	12 Hot-swap 3.5" SATA3/SAS3/NVMe drive bays
Expansion Slots	4 PCI-E 4.0 x16 (FH, 10.5" L) slots;
GPU	1 x NVIDIA A100 80GB CoWoS HBM2 PCIe 4.0 or Equivalent
100G EDR	ConnectX-6 VPI Adapter Card HDR100/EDR/100GbE Single Port with 2 Mtr Cable
NIC	2 x Intel® i350 GbE Controller
IPMI	Integrated IPMI 2.0 + KVM with dedicated LAN
OS	Open Source Cent OS
Formfactor	2U Rackmountable with 920W Redundant Platinum Level Power Supplies

There are options: Options 1 has master node and four computing nodes

Options 2 has master node and five computing nodes

	Option 1
1	Master Node
2	**Four Compute Node**
3	Primary Switch – HDR
4	Secondary Switch – 24 Port Gigabit
5	42U Standard Rack with PDU & Accessories
6	Interconnect Cable EDR MCP7H50-H002R26- 2 Mtr (100G)

1	Master Node
2	**Five Compute Node (GPU + CPU)**
3	Primary Switch – HDR
4	Secondary Switch – 24 Port Gigabit
5	42U Standard Rack with PDU & Accessories
6	Interconnect Cable EDR MCP7H50-H002R26- 2 Mtr (100G)

Software: Cent-OS and open-source compilers and tools, open source mathematical/scientific libraries

Commercial Terms and Conditions:

- The quotation should comprise of **Two-cover format – a technical part and a Financial bid**. Covers containing the technical and commercial bids must be individually sealed, and superscribed respectively as "CPU_GPU/bgayen/2022 – Technical Bid" and "**CPU_GPU/bgayen/2022 – Financial Bid**". The two covers must be put in a larger envelope, sealed, superscribed as "**Computer Server_GPU_CPU/bgayen/2022**" and sent to/ submitted in **Centre of Atmospheric and Ocean Science Office, IISc, Bangalore 560012**, on or before the deadline. All the covers should bear the name and address of the bidder. Non-conformance of any of the above can result in disqualification.

- The commercial bid should contain among other things, payment terms, warranty, installation, and commissioning charges. These charges will be paid only after successful supply, installation and acceptance.

- Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.

- The quotations should be on FOR-IISc Bangalore basis in INR only. In case of rupee offer, the component of GST/VAT/CST, E.D. and any other statutory levies if applicable should be shown separately and not included in the total amount, to enable us to avail exemption. IISc is eligible for 5% GST under concessional certificate.

- Price should be quoted per unit and the total amount for the required quantity.

- IISc will place the purchase order only on the successful bidder.

- The technical bid must clearly specify the prescribed technical specifications without including the prices. Please provide detailed component specifications and an item-wise compliance report of all the specifications in the technical bid.

- The vendors quoting should be registered with IISc. The quote should carry your vendor registration number in the technical bid.

- The technical bid must clearly specify the prescribed technical specifications without including the prices. Please provide detailed component specifications and an item-wise compliance report of all the specifications in the technical bid.

- Vendors who include price information in the technical bids will be automatically disqualified.

- Vendors must provide three independent reference letters from completed (within last 3 years) cluster installations worldwide, with similar or higher minimum peak performance, along with the technical bid. IISc may contact more users for obtaining independent references. The committee will have right to reject a bid based on reference letters.

- The bid should contain power computations for each node and the assembly as a whole. It should also contain UPS specifications for 1 hour backup power supply.

- All equipment must be compatible with Indian Electrical Standards/Codes.

- The vendor must carry out the installation, commissioning and cabling of all the hardware as well as software components.

- The commercial bid should contain among other things, payment terms, warranty, installation, commissioning etc. as per requirements of IISc mentioned in the tender document. All such conditions must be in line with the tender. In case of any deviation or conditional offer, the bid may be treated as non-responsive and hence will not be considered for evaluation.

- The bids should be valid for at least 90 days from the last date of submission of the quotation.

- Please mention per node cost in the bid. Any additional nodes have to be supplied at the same cost quoted in the original bid.

- Price bids of only technically qualified vendors will be considered, and the order will be placed on lowest bid from a technically qualified vendor.

- IISc reserves the right to reject the tender without assigning any reasons thereof. 16. The total solution as per the agreed bill of materials must be supplied within 6-8 weeks after receiving a firm PO from IISc. The installation, testing and acceptance must be completed within 2 weeks after supply of the equipment. The vendors should indicate the tentative delivery and installation date in the technical bid.

- If a bidder wins the order, the payment for the product shall be made to the winning bidder after delivery, set-up, satisfactory verification of the product components. Any damaged component detected at the time of the OS installation/verification should be promptly replaced, at no extra cost, and the warranty period should be correspondingly revised.

- Tender documents that do not satisfy the "Terms and Conditions" listed herein will be disqualified.

- The tender documents should be sent to the following address before following dates:

The Chairman
Centre of Atmospheric and Ocean Science Office
Indian Institute of Science, Bangalore 560012
Karnataka, India.
Attn: Bishakhdatta Gayen

Important Dates (Tentative):

08.03. 2022: Enquiry letter sent to Vendors/ Put it on IISc webpage
14.03. 2022: Clarifications/queries, if any, to be sent by email to bgayen@iisc.ac.in
20.03. 2022: Last date for submission.