

Domestic Tender Notification for the Procurement of a High-Performance Computing (HPC) Cluster in the Department of Materials Research Centre

Tender No.: MRC/Abhishek/HPC-system /2021/MRC-HPC
February 9th, 2021

Tender notification for the procurement of 3 compute nodes for existing HPC cluster. Materials Research Centre, Indian Institute of Science seeks quotes for 3 compute nodes for existing HPC cluster with the following specifications.

This is an open domestic tender for the purchase of 3 compute nodes for existing HPC cluster.

Terms & Conditions

- The quotes should be submitted in sealed covers. Due to prevailing COVID situation the quotes can be also accepted by email to abhishek@iisc.ac.in
- 100% Payment after the satisfactory installation
- **The deadline for submission of proposals quotes is February 15th, 2021, 5:00 pm evening**
- ISO certification of the product should be must

Note:

Strictly better specification will also be considered.

- The sealed covers should be submitted to the following address:

Prof. Abhishek Kumar Singh
Materials Research Centre
Indian Institute of Science, Bangalore 560012
Phone: + 91 80 2293 2784
Email: abhishek@iisc.ac.in

Table: Technical Requirements

3 Compute Node for Existing HPC Cluster

Item #	Item heading	Item specification
1	Processor	<ul style="list-style-type: none">• 2 X Intel® Xeon® Gold 6248R Processor (35.75M cache, 24 Cores, 48 Threads, 3.00 Ghz)• Two CPUs per node
2	Memory	<ul style="list-style-type: none">• 12 X 16GB DDR4 2933 ECC• Reg-Total = 192GB RAM In Balanced Configuration (4GB Per Core)
3	Storage	<ul style="list-style-type: none">• 1 X 2TB SATA Enterprise 3.5" 7.2K• 8 X 3.5" Hot-swap SAS3/SATA Drive bays
4	High-speed interconnects	<ul style="list-style-type: none">• 2 X GbE (using i350-AM2)
5	VGA & Ports	<ul style="list-style-type: none">• 1 Onboard VGA & USB 3.0 (4 rear)
6	IPMI Management	<ul style="list-style-type: none">• IPMI 2.0, shared Supports KVM over LAN• Virtual Media & Remote
7	EDR	<ul style="list-style-type: none">• NVIDIA Mellanox ConnectX-5 VPI Adapter Card EDR InfiniBand and• 100GbE Single-Port QSFP28 PCIe 3.0 x16 With 100G Cable
8	Power Supply	<ul style="list-style-type: none">• 2U Rack Mountable Server With 600/800W• Redundant Power Supply
9	Operating system	<ul style="list-style-type: none">• CentOS should be installed• The system should support recent versions of CentOS and Ubuntu
10	Cables	<ul style="list-style-type: none">• All required cables are included
11	Scope of Work	<ul style="list-style-type: none">• Installation of OS, Job Scheduler, HPC Management Software with required• Licenses for working as Node of existing HPC cluster• Integration of Node in Existing 13 Node Cluster
12	Warranty	<ul style="list-style-type: none">• 3 Years Onsite (Warranty/Parts/Labour)

Other requirements:

1. Annual maintenance contract (AMC) and warranty on all components, and complete software support, all for a minimum of 3 years, should be included in the quoted cost.
2. Fourth and fifth year AMC should be quoted separately.
3. Detailed instructions on installing additional nodes, replacing failed nodes, operating the system, and powering up/down the system should be provided during installation.
4. On Site support to be provided by the Bidder or the OEM. Declaration to be submitted along with the bid
5. With respect to this tender, the rules laid out by the Government of India in order No.P-45021/2/2017-PP (BE-II) issued by the Public Procurement Section, Department of Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, dated 04 th June 2020, will be followed. Per this order, the government has defined a 'Class-I local supplier' as "a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%". A 'Class-II local supplier' is "a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%". Only 'Class-I' and 'Class-II' local suppliers are eligible to participate in this open domestic tender. Any 'Non-local supplier', i.e., "a supplier or service provider, whose goods, services or works offered for procurement, has local content less than 20%" is ineligible to participate in this tender.

Scope of the work

1. Delivery of all physical equipment to the Materials Research Centre, Indian Institute of Science
2. Installation and startup of the compute nodes at the desired place
3. Software installation as mentioned in the table above, including testing to ensure that all installed software work as intended
4. Testing and verification of infiniband state and rate of data transfer