Tender notification for the procurement of a “Multi-GPU based cluster node for high performance computing and machine learning” (Last date:15.03.2019)

Dear Sir/Madam,

In order to accomplish the goals of a government funded project we plan to acquire a NVIDIA multi-GPU based high performance computing solution allowing for large-scale phase simulations of phase transformations as well as for machine learning to generate reduced order models. In the following we list the minimum specifications that we insist upon in the solution.

Minimum specifications for the compute node

1. 20 core(40 threads) or higher intel cpu (skylake 6148 or higher)//IBM-POWER9 (SMT 4) with 20 cores.
2. 4 GPU NVIDIA V100(SXM2) cards; each with 32 GB (HBM2 memory).
3. NV link 2.0 with 300GB/s bandwidth.
4. 1.92TB*3 SSD storage.
5. 384GB DDR4 2666Mhz RAM or higher, with ECC (Balanced configuration).
6. Effective cooling(air) with proper size of fans. Should be integrate-able in an existing data server room.
7. Ubuntu/CentOS operating system preloaded with Nvidia-driver and CUDA toolkit, along with AI bundle. We would also require full software support in porting our codes on the system.
8. The CPU and GPU node should be placed on the same node.

In case of a price conflict, the vendor with the following options will be preferred in the following order of priority;

1. Offer of higher number of GPU nodes for the same cost.
2. Higher RAM for the same cost but balanced configuration.
3. Optional possibility to upgrade to 8GPU V100 cards with same memory configuration and Nvlink connectivity.
4. Optional possibility to upgrade RAM to 2*384 GB or higher with the same speed and in balanced configuration.
5. Higher CPU variant (Please check power requirement and compatibility).
6. Higher PCIe variant.

Terms and conditions

1. Two-bid system (separate technical and financial bids) in sealed tenders.

2. The technical bid must clearly specify the prescribed technical specifications without including the prices. Please provide in detail the specifications under each subhead and bullet point. Unique characteristics may be highlighted.

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

4. At least 3 independent reference letters from installations worldwide. IISc may contact more users for obtaining independent references. The committee will have right to reject a bid based on reference letters.

5. Technical bids will be opened first. IISc may seek clarifications after opening of technical bids and may ask vendors to perform some example experiments on the samples given by IISc to demonstrate the promised technical specifications. Vendors may be required to give presentations.

6. There are several items that require detailed information to be provided by the supplier. If information is not provided against any of these items, this will disqualify the supplier.

7. After technical evaluation by a committee, vendors may be asked to re-quote in a specific format to facilitate comparison of prices.

8. Price bids of only technically qualified vendors will be considered.

9. The price bids must offer CIF Bangalore prices.

10. Prices to be quoted separately for baseline system and options. Prices should be quoted in adequate detail with relation to packing details to cover insurance compensation in case of damage to any specific modules.

11. Indicate separately price of spares listed above in terms of unit cost. The price of these spares will be included in the price comparison. Any additional spares recommended by the company will be considered for ordering but not included in the comparison. The buyer reserves the right to make the final decision on ordered spares.

12. IISc also reserves the right to cancel the tender at any time without assigning any reason whatsoever.

13. Indicate delivery period.

14. Order will be placed on lowest bid from technically qualified vendor.

15. The tender documents can be sent at the following address:

The Chairman
Department of Materials Engineering
Indian Institute of Science, Bangalore 560012
Karnataka (INDIA)
Attn: Dr. Abik Narayan Choudhury