



INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH
PUNE

CLARIFICATION ON TENDER NUMBER - IISER-PUR-1147-15

ITEM DESCRIPTION- PROCUREMENT OF HIGH PERFORMANCE COMPUTER CLUSTER

Refer our Press Tender Notice No.IISER/S&P/16/15-16 dated 28.1.2016 for procurement of High Performance Computer Cluster. Tender Reference Number - IISER-PUR-1147-15.

Pre-Bid meeting was held on February 9, 2016 at 10.30 AM and minutes of meeting is as under.

At the outset, the Chairman welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the Project and thereafter requested Assistant Registrar (S&P) to brief the vendors on the salient features of the commercial terms and the indenting Officer to read out the clarification sought by the Prospective Bidders and replied thereto as detailed in Annexure -II

The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Pune and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

The other terms & conditions of the notice issued on our IISER website [www.iiserpune.ac .in](http://www.iiserpune.ac.in) will remain unchanged. No more correspondence in this regard will be entertained

The meeting ended with vote of thanks to the Chair

9.2.2016

Sd/-
Assistant Registrar (S&P)



IISER PUNE

PRE-BID CONFERENCE FOR PROCUREMENT OF HIGH PERFORMANCE COMPUTER CLUSTER

TECHNICAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISER-PUR-1147-15

DATE : 9.2.16

Sr.No	Query/Clarification Sought	Clarification / Amendment
1	<p>Technical Qualifying criteria</p> <p>(b) If (a) is satisfied, the benchmarks for QE will be considered. Firstly, each of the QE benchmark runs should give correct numerical results upto 4 places after decimal.</p> <p>For this benchmark suite latest version of Quantum ESPRESSO 5.2.1 will be used. The current latest version is 5.3.0. Are we allowed to use 5.3.0 ? We noticed version 5.2.1 throwing an error whereas provided input file is working fine with v5.2.0 and 5.3.0)</p>	<p>Due to a bug in Quantum ESPRESSO version 5.2.1, the benchmark needs to be done on version 5.1.</p>

2	<p>Network Connectivity</p> <p>Additional 16 free ports on IB switch for storage connectivity.</p> <p>For the rest of the free ports on the switch please clarify if we have to supply IB cables and if so what type and length to be quoted</p>	<p>The word storage stands removed.</p> <p>No accessories required for the additional free ports.</p>
3	<p>Hardware- Nodes</p> <p>HEAD NODE:</p> <p>The proposed solution should have one master node</p> <p>Please clarify if any failover is needed for Master Node. If yes, request to please change the number of master nodes as 2</p>	<p>Tender Specification prevails.</p> <p>No change in the specification.</p>
4	<p>Storage</p> <p>The I/O servers (if required) should be of the same configuration as the compute node</p> <p>Please clarify if storage solution is to be configured in no single point of failure.</p>	<p>“No single point of failure” not required.</p>
5	<p>Storage</p> <p>The I/O servers (if required) should be of the same configuration as the compute nodes.</p> <p>For providing no single point of failure in Lustre solution, we request IISER to include dedicated MDS servers and MDS storage in the RFP</p>	<p>Tender Specification prevails.</p> <p>No change in the specification.</p>
6	<p>Cluster Management</p> <p>All of the above to be performed remotely, using both GUI and CLI interfaces.</p>	<p>Tender Specification prevails.</p> <p>No change in the specification.</p>

	Open Source Cluster management software's doesn't provide all the requested features in GUI mode. We request IISER to change the requirement to commercial cluster management software or remove the GUI option	
7	The specifications mentioned are for the up-coming generation of CPUs. At the time of shipment of these nodes, new generation systems may be available. Will the Institute allow moving to new generation hardware with 10TF Theoretical Peak performance?	Yes, subject to the conditions stipulated in the tender document.
8	If we quote with two 1Gbps onboard and PCIe slot for 10G ports in future. Does this suffice?	Yes, this is acceptable.
9	Please mention if the 10G ports shall be copper or fibre. If we quote with Dual 10G adapter, can we consider that, "additional 10Gbps port" mentioned above is taken care of?	These will be copper. Yes, this is acceptable.
10	We understand, KVM over media feature is not required for Compute nodes or for I/O Servers - kindly confirm or suggest correction.	It should be across all the nodes
11	Does IISER have a separate set of network switches for a) management network b) user access or does the vendor have to provision network switches. If network switches have to be provided, please help with number of ports needed on these switches.	Network switches needs to be provided as per tender specifications.
12	16 free ports for storage could be a typo. Kindly consider revising.	The word storage stands removed.

13	<p>Please specify the raid geometry - whether it will be 8d+2p? The objective is to have equivalent hardware being quoted by all vendors/OEM.</p> <p>Kindly elaborate if back-back support for Intel Lustre / GPFS is required and for how much period.</p>	<p>Yes, it would be 8d+2p.</p> <p>Yes, there should be back-back support for the entire period of the tender</p>
14	<p>The disk capacity has no impact on the performance. Kindly relax the specification</p> <p>"The capacity of each disk should be minimum 3TB or higher" and revise to</p> <p>The OEM+Vendor will provide disks with sufficient capacity to reach 20TB usable capacity.</p> <p>Please elaborate other aspects of Storage Array as well 1) Dual Active-Active Controller or single controller.</p> <p>2) Cache size,</p> <p>3) 8Gbps FC host ports,</p> <p>4) Disk scalability</p> <p>5) hotspare disks (for every 40 disks) etc.</p> <p>for both MDT and OST. This will ensure equivalent hardware being quoted by all vendors/OEM.</p>	<p>Tender Specification prevails.</p> <p>No change in the specification.</p>
15	<p>Can we use disks of different capacity for the running tests and submitting results? The capacity of the disks has no impact on the performance.</p> <p>Please specify configuration of Meta Data Storage Array so all vendors quote equivalent hardware.</p>	<p>Yes, subject to the conditions stipulated in the tender document.</p>
16	<p>Configuration of compute nodes is 2 x 14core processor. For I/O server this may be over powered configuration. Please specify a lower configuration for I/O servers.</p> <p>2 x300GB SAS disks in Raid 1 are recommended minimum for I/O servers. Kindly consider amendment accordingly.</p> <p>Does the Institute require HA for I/O servers?</p> <p>Under which scenario does the institute think that I/O servers will not</p>	<p>Tender Specification prevails.</p> <p>No change in the specification.</p> <p>HA not required for I/O servers.</p>

	be required?	
17	The bidder should ensure that all hardware (H/W) components offered in the Bill of Material should be covered under OEM support enabling program so as to get back end support / benefits from Principles / OEM in terms of Free Software Update Support / Maintenance releases, if any, to a particular Software Version. Kindly further elaborate this clause	Has been explained.
18	Full technical details of the proposed computer hardware, interconnects and storage must be provided. All model numbers must be provided. Kindly further elaborate this clause	Has been explained.
19	The vendors should run the benchmarks on a 10 node machine with technical specifications as outlined in the tender. They need to reproduce the submitted results on 10 nodes of the supplied solution Since the requirement is for 10 TF (~11 Nodes) we request you to kindly allow to do benchmarking on 4 Nodes and extrapolate for 10 Nodes	Tender Specification prevails. No change in the specification.
20	Please clarify Metadata to should be on separate storage or can be part of same storage box.	Yes, subject to the conditions stipulated in the tender document.
21	It is mentioned in eligibility criteria for bidder to submit the PO of installation of distributed memory node cluster of at least 10 TF peak performance. We just wanted to confirm that if it is ok to submit the documentation of providing 10 TF peak performance of cluster from the OEM side instead of System Integrator partner. We have expertise in installation of the clusters but not able to provide the PO of 10 TF.	Tender Specification prevails. No change in the specification.



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PRE-BID CONFERENCE FOR PROCUREMENT OF HIGH PERFORMANCE COMPUTER CLUSTER

COMMERCIAL QUERIES AND CLARIFICATION

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DATE : 9.2.16

S.No	Query/Clarification Sought	Clarification / Amendment
	-----NIL-----	-----NIL-----