भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान तिरुपति

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH TIRUPATI

(An Autonomous Institute under Ministry of Human Resource Development, Govt. of India)
Transit Campus : Sree Rama Engineering College Campus, Karakambadi Road,
Mangalam B.O., Tirupati – 517 507, Andhra Pradesh, India
(MENTORED BY IISER PUNE)

CLARIFICATION ON TENDER NUMBER - IISERT-PUR-0063-17

ITEM DESCRIPTION - HPC CLUSTER AND PFS BASED STORAGE ALONGWITH NECESSARY SOFTWARE

Refer our Press Tender Notice No. IISERT/S&P/06/17-18 dated 23.11.2017 for procurement of HPC. Tender Reference Number – **IISERT-PUR-0063-17**.

Pre-Bid meeting was held on November 30th, 2017 from 14.30-16.30 and the 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 / additons / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Tirupati 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.iisertirupati.ac.in will remain unchanged. No more correspondence in this regard will be entertained

The meeting ended with vote of thanks to the Chair

Sd/-
Assistant Registrar (S&P)

06.12.2017

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PRE-BID CONFERENCE FOR PROCUREMENT OF HPC CLUSTER AND PFS BASED STORAGE ALONGWITH NECESSARY SOFTWARE

TECHNICAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISERT-PUR-0063-17   DATE : 06.12.17

S.No	Query/Clarification Sought	Clarification / Amendment
1.	**Page No 17:** The BIDDER shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on payment on approved price list basis. Please consider spare supply for 7 years as mentioned on page number 42 of tender document.	Modified to "The BIDDER shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 7 years on payment on approved price list."
2.	**Page No 22:** Processor: 2 x Intel Xeon Gold 6148 (2.4GHz / 20 Cores) or better. Considering the higher TDP of 150W per CPU and the dense form factor, we propose to IISER to consider a specialized cooling mechanism like Liquid Assisted Air Cooling (LAAC) to keep the heat generated in control. Incase if IISER decides to have the system using Air cooled chassis, then we strongly recommend for the ambient temperature to be less than 22 Degree Celsius all the time.	As per tender specifications
3.	**Page no 23:** Performance: Min. 4 GB/s write/read	Performance required is 4GB/s read and write separately

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	using IOR or IOZone. The Performance of the storage is mentioned as 5GB/s at one place and 4GB/s at another place. Please confirm if its 5GB/s or 4GB/s.	
4	**Page no 23:** Performance: Min. 4 GB/s write/read using IOR or IOZone. The performance of the storage is mentioned as 4GB/s write/read. Request you to please confirm if it is the aggregated Read and write performance or not. If not, please specify the performance of read and write separately.	Performance required is 4GB/s read and write separately
5	**Page no 27:** (a) A minimum of 75% is acceptable for the HPL benchmarks	Modified to (a) A minimum of 65% is acceptable for the HPL benchmarks
6	**Page no 27:** A minimum of 75% is acceptable for the HPL benchmarks. In the Technical Qualifying Criteria it says, "A minimum of 75% is acceptable for HPL Benchmarks". Please confirm if it is on a single node or on 4 Nodes? Also can this performance be achieved using Intel MPI?	Page no 27, Technical Qualifying Criteria: modified to • The bidder should carry out below listed bench mark programs: 1. HPL benchmark (optimized) The Benchmarks have to be executed on 1, 2, and 4 nodes configuration
7	**Page No 1** • Items : HPC 20 node cluster, 150 TB of parallel file storage with 5 GB / sec performance, along with necessary software **Page No 3:** point no 1: HPC 20 node cluster, 150 TB of parallel file storage with 5 GB / sec performance, along with necessary software **Page no 11 :**point no 3.1 : HPC 20 node cluster, 150 TB of parallel file storage with 5 GB / sec performance, along with necessary software.	Modified to "Tender for HPC Cluster and PFS based storage along with necessary Software".

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8	**Page no : 23 - Chapter 4: Schedule of Requirement, Specification & Allied Technical Details** (i) Secondary Interconnect: Gigabit Ethernet Switch At least 24 ports managed Gigabit Ethernet Switch with required number of cables to connect all nodes. All nodes need to be connected by Gigabit network for remote management hardware as well as for system network. Both the networks should be completely different. Though the requirement is defined as Managed Gig. Ethernet Switch but let us know whether L2 Managed or L3 Managed Gig. Ethernet Switch is required	As per tender specifications
9	**Page No 22: Chapter 4**: Schedule of Requirement, Specification & Allied Technical Details (ii) In Master Node: Sr. No. 12: You have asked for "Rack mountable TFT with keyboard, mouse and KVM" Kindly let us know how many ports of KVM Switch that you require, Also let us know whether Integrated Console is required or separate one?	As per tender specifications
10	**Page no 26: Chapter 4:** Schedule of Requirement, Specification & Allied Technical Details iii) Details regarding the benchmark : Point No. 03 Benchmarking should be purely on CPU cores and should be done on the same configurations and specs as asked in this tender and only on 1, 2 and 4 nodes. We humbly request you to change it to 1 and 2 nodes.	As per tender specifications
11	**Page no 27:Technical Qualifying Criteria:**	The Benchmarks have to be executed on 1, 2, and 4 nodes configuration.

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	For the GROMACS benchmarks, the scalability will be measured in terms of speed up achieved (S) and for efficiency; we will consider the wall time required for completion of the jobs with the maximum number of nodes. HPL - to be run on how many nodes? Will it be with 4 nodes like GROMACS	
12	**Page no 27**: Technical Qualifying Criteria A minimum of 75% is acceptable for the HPL benchmarks. HPL- kindly amend from 75% to 65% since Intel SKL CPUs do not deliver so much sustained HPL% with Netlib binaries.	Page no 27 Technical Qualifying Criteria: modified to : • The bidder should carry out below listed bench mark programs: 1. HPL benchmark (optimized) (a) A minimum of 65% is acceptable for the HPL benchmarks
13	**Page no 1: Items** : HPC 20 node cluster, 150 TB of parallel file storage with 5 GB / sec performance, along with necessary software But, as per CHAPTER 4; Page 22 of 43 one master node and 14 compute nodes.	Modified to "Tender for HPC Cluster and PFS based storage along with necessary Software"
14	**Page No 22:** Processor: 2 x Intel Xeon Gold 6148 (2.4GHz / 20 Cores) or better Considering the higher TDP of 150W per CPU and the dense form factor, we propose to IISER to consider specialized cooling mechanisms like Liquid Assisted Air Cooling (LAAC) to keep the heat generated in control. Incase if IISER decides to have the system using Air cooled chassis, then we strongly recommend for the ambient temperature to be less than 22 Degree Celsius all the time	As per tender specifications
15	**Page no 23:** Performance: Min. 4 GB/s write/read using IOR or IOZone The Performance of the storage is mentioned as	Performance required is 4GB/s read and write separately

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	5GB/s at one place and 4GB/s at another place. Please confirm if its 5GB/s or 4GB/s.	
16	**Page no 23:** Performance: Min. 4 GB/s write/read using IOR or IOZone The performance of the storage is mentioned as 4GB/s write/read. Requestyou to please confirm if it is the aggregated Read and write performance or not. If not, please specify the performance of read and write separately.	Performance required is 4GB/s read and write separately
17	**Page no 27:**Technical Qualifying Criteria A minimum of 75% is acceptable for the HPL benchmarks. In the Technical Qualifying Criteria it says, "A minimum of 75% is acceptable for HPL Benchmarks". Please confirm if it is on a single node or on 4 Nodes? Also can this performance be achieved using Intel MPI?	Page no 27 Technical Qualifying Criteria: modified to • The bidder should carry out below listed bench mark programs: 1. HPL benchmark (optimized) Page no 27: (a) A minimum of 65% is acceptable for the HPL benchmarks The Benchmarks have to be executed on 1, 2, and 4 nodes configuration.
18	General Clarification 1. How much rack space available in the DC for this HPC setup? 2. What type of cooling available in the DC? (HVAC or InRow or RDHx) 3. What is the ambient temperature maintained in DC room? 4. Which job & queue management software will be provided?	1. As per tender specifications 2. HVAC 3. 19 Degree Celsius 4. Open PBS
19	Page No 22: Compute Node(s): Quantity: 14 Point No 7 : Chassis, Power supply Dense form factor nodes occupying on an average of	As per Tender Specifications

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	0.5U per node to be proposed. If there are any blank slots in the chassis, this will not be considered as part of the 0.5U calculation. Similarly, if there are any External Power shelves in the solution powering the compute nodes, the space used by these Power Shelves shall not be used for the 0.5U calculation. Request IISER to allow for 1U rack mounted server	
20	**Page No 23:**PFS based storage solution Point no :2 Performance Min. 4 GB/s write/read using IOR or IOZone Is it 100% Write speed?	Performance required is 4GB/s read and write separately
21	**Page No 23** : PFS based storage solution Point no 3 :Usable capacity for OSS Min. 150 TB usable RAID6 (Hardware or Software RAID). Preferred disk layout – 9D + 2P or 8D + 2P. NL SAS disks (12Gbps) can be used. Query/Suggestion: Request IISER to allow only hardware based solution which assured better reliable solution. There is possibility of complete loss of data in case of software based RAID.	As per Tender Specifications
22	**Page No 23** : PFS based storage solution Point no 6 :MDS/OSS Node configuration Each of the nodes should be configured with 2 x Intel Xeon E5-2690v4 (or better in terms of cores and frequency)/ 256GB/ necessary Disk controllers for the solution/ 100Gbps EDR or OPA (single port). Query/Suggestion: Please change to equivalent skylake option. Since we will not be able to supply Broadwell based machines since its already EOL	As per Tender Specifications
23	**Page No 23** : PFS based storage solution	As per Tender Specifications

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	Point no 11 :Lustre manager server Separate 1U Rack mount Server should be offered with min. 1 x Intel Xeon E5-2603v4 (6c @ 1.7GHz) / 16GB / 2 x 1 TB SATA disks / 4 x 1G / RPS Query/Suggestion: Please change to equivalent skylake option. Since we will not be able to supply Broadwell based machines since its already EOL	
24	**Page No 26 :**Miscellaneous Point no 6: Intel Cluster Studio Single user academic license for a period of 3 years Single User License. To be supplied and installed onto the cluster Query/Suggestion: Single user is not meant for cluster environment. Would suggest to go for 2 seats floating license.	As per Tender Specifications
25	**Page No :17** Point no 12 : Training 12.1 Wherever needed, Our Scientist/Technical persons should be trained by the supplier at the project site free of cost. In case the person is to be trained at supplier's site abroad or in India it should be mentioned in the quotation clearly. The supplier should bear all the expenses for such training including 'to & fro' fares and lodging & boarding charges Administration training would be provided at site.	As per Tender Specifications
26	**Page no 26: Chapter 4:** Schedule of Requirement, Specification & Allied Technical Details iii) Details regarding the benchmark : Point No. 03 Benchmarking should be purely on CPU cores and should be done on the same configurations and specs as asked in this tender and only on 1, 2 and 4 nodes.	As per Tender Specifications

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	Allows us do the bench on 160 cores (based on Broadwell instead of SKYLAKE processors**.**	
27	**Page No 11:** Point no 2. Delivery Period / Timeliness 2.1 The deliveries & installation must be completed within 2 months after Placement of purchase order. The time is the essence of the contract. It is mandatory for the BIDDERs who respond to this bid to meet these expectations, as are tightly linked to IISER, TIRUPATI's plans of completing the project within the time frame. Required minimum 90 Working days or 3 months for supply and installation completion	As per Tender Specifications

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ANNEXURE -III

IISER TIRUPATI

PRE-BID CONFERENCE FOR PROCUREMENT OF HPC CLUSTER AND PFS BASED STORAGE ALONGWITH NECESSARY SOFTWARE

COMMERCIAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISERT-PUR-0063-17   DATE : 06.12.17

S.No	Query/Clarification Sought	Clarification / Amendment
01	Page No 15: We are exempted from payment of Excise Duty under notification number 10/97 dated 01.03.1997and Customs Duty under notification No.51/96 dated 23.07.1996. Hence Excise Duty and Customs Duty, if any, should be shown separately. No other charges than those mentioned clearly in the quotation will be paid Post GST implementation with respect to 1-July-17, Excise duty (10/97) & Custom duty (51/96) stands nullified. Please clarity if IGST i.e. Import GST exemption certification can be provided by IISER. If Yes, Please share us the valid certificate/notification along with what % of duty exemption can be availed.	Yes, the Certificate shall be provided by the Institute as and when required. However, the Duty is Nil on HPC.
02	We have MSME Certificate (Attached the Certificate) and Govt. of India GR for startups and Medium enterprises (Attached the Certificate) to get Exemption from EMD	Only EMD Exemption shall be provided on production of valid Documentary Evidences.

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	amount, Tender fees, Security deposit Prior Experience- Prior Turnover criteria and for startup company like us. Kindly confirm do you accept above both certificate so that we can participate this tender and give our Best service to your organization.	Regarding Relaxation of norms for startups, please refer para No. 03 of OM No. 20/2/2014-PPD(Pt.) dated 20.09.2016 by Ministry of Finance.