ICTS | INTERNATIONAL CENTRE for THEORETICAL SCIENCES

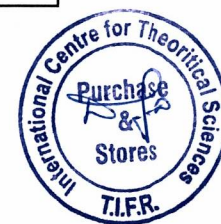TATA INSTITUTE OF FUNDAMENTAL RESEARCH

TENDER FOR SUPPLY AND INSTALLATION OF HIGH PERFORMANCE COMPUTING CLUSTER
PREBID CLARIFICATIONS - PREBID MEETING HELD ON 01.03.2017

Current Technical Specifications in Tender	Vendor Remarks/Queries	ICTS Response
Master Node		
Minimum 256GB (16x16) ECC DDR4-2400 Mhz or better RAM in balanced configuration for optimizing the memory bandwidth	Requesting to change to 8x32GB. This is a balanced configuration with lower power consumption.	The requirements remain unchanged
2 x 1200 GB SAS Hot Swappable HDD 10000rpm with RAID-1 for OS (Hard disk: Hitachi Ultrastar, Western Digital or equivalent)	Please relax to include NL-SAS or SATA drives. Please remove the reference to make of harddisk. As a system OEM, we identify the harddisk based on unique internal part-code rather than make-n-model. Without unique partcode, there is every probability that a vendor can supply different model from same make in different nodes. This leads to non-standard configuration and creates confusion at the time of replacement of parts is called for.	The requirements remain unchanged
2 x 10 Gbps Ethernet ports	Shall we consider this to be Copper ports?	Please refer Addendum-1
All required cables	Pls confirm if we cold consider Power Cords and Cat6 mounting cords	Yes
Compute Node		
Minimum 64GB (16x4) ECC DDR4-2400 Mhz or 4GB/Core RAM whichever is higher (in balanced configuration for optimizing the memory bandwidth)	Please relax the clause "Balanced configuration". For dual CPU configuration, minimum 8 dimms are required to achieve balanced configuration.	Please refer Addendum-1

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1 x 1000 GB NL SAS or Enterprise SATA3 Hot Swappable HDD 7200rpm (Hard disk: Hitachi Ultrastar, Western Digital or equivalent)	Please relax to include NL-SAS or SATA drives. Please remove the reference to make of harddisk. As a system OEM, we identify the harddisk based on unique internal part-code rather than make-n-model. Without unique partcode, there is every probability that a vendor can supply different model from same make in different nodes. This leads to non-standard configuration and creates confusion at the time of replacement of parts is called for.	The requirements remain unchanged
IEC C14 Male to IEC C13 Female power cables	Please allow both IEC320 C19 -> IEC 320 C14 and IEC320 C13 -> IEC 320 C14	Every rack in ICTS data center contains 2 No. PDUs with the specifications : 3 Phase 63A, Vertical ,24 Outlet (C13 - 24nos, C19 - 12 nos) Sockets.
Preferred OS: Scientific Linux (latest version), CentOS (latest version) 64bit OS and Debian (latest version)	Linux flavors supported : CentOS,RHEL,SUSE	The requirements remain unchanged
Fully automated system provisioning	Please provide SOW for automated system provisioning.	Building a complete HPC system along with OS provising and HPC management tools
SPARES TO BE SUPPLIED	We understand, the spares are to be supplied only for the compute nodes and not for master nodes. Please confirm.	Please refer Addendum-1
	We recommend the compute node to have a 1 TB HDD instead of a Hot Swappable HDD. One disk cannot be Hot Swapped.	Please refer Addendum-1
	Also, please remove the make and ODM vendor for disk.	The requirements remain unchanged

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2 x E5 2600 V4 series, minimum 2.1 Ghz, minimum 8 Cores or above (Intel® Xeon® Processor E5-2620 v4 or better) 160 Nos. (8 core socket) or As per core density per node quoted by vendors for a total of 2560 cores	a) Since the cluster is to be used for HPC applications, the preferred processor for such applications offering the best application price/performance is the Intel Xeon E5-2697A V4 (Sixteen-core, 2.6Ghz, 40M). Total 32-cores. Hence we request ICTS-TIFR to look at this best-in class processor for HPC applications on both Master and compute nodes. b) With the above core-count we can offer 2560 cores in much lesser no. of nodes. Kindly confirm if we can offer lesser no. of nodes but meeting your total core count criteria	Yes
Provide BTU and Power rating of the quoted hardware. Provide details of heat dissipation	This is a very subjective statement when comparing various solutions. We request ICTS-TIFR to consider the total Power, heat dissipation and cooling requirements for L1 calculation. Each bidder has a different solution and based on their uniqueness (whether they offer air-flow cooled solution/partial liquid cooling/complete liquid cooling solution) the efficiency and cost varies. Therefore to get an energy-efficient solution, it is recommended that ICTS-TIFR considers the total TCO costs (total Power, heat dissipation and cooling required) by providing appropriate weightage to each solution in the final L1 calculation.	Tender caluse will remain inforce as per tender document.
Pre-qualification for bidder- The bidder should submit the BIS certificate for the quoted hardware.	Since we are new OEM entrant into India, we have applied for BIS certification. Therefore we request ICTS-TIFR to relax this clause and allow us to integrate the cluster at your site incase of any delayes in BIS certfication. We are supplying our solution to other Research Institutes on similar lines. We & our authorised partner takes complete responsibility to integrate and set-up the cluster as per ICTS-TIFR timelines	Tender caluse will remain inforce as per tender document.

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The bidder should have executed at least 2 projects using an architecture and technologies similar to those being proposed in their quotation against this tender.	We will be bidding through its authorized system Integration partner who has executed such projects, but using other architecure and technologies than those proposed as we are new entrant into India with its unique energy-effiient and compact solutions for HPC & Datacenters. We have many large HPC installations in Russia which also figure on the worldwide Top 500 list. Kindly confirm if the bidder can provide details of their other large projects as a proof of their HPC capabilities.	Tender caluse will remain inforce as per tender document.
Commercial		
	Can ICTS provide EMD exemptions for NSIC/ MSME Registered firms	EMD exemption will be given to vendors with NSIC registration for the particular Stores/ Service having the quantitative capacity to cover the tender value
	In the above tender RFP you have asked for 5 years experience for the bidder, fi uou reduce the bidder's experience as 3 years will encourage more number of bidders to participate and healthy competition will be there. Moreover, ICTS can encourage and utilize the Core competencies of growing companies.	Tender caluse will remain inforce as per tender document.