

Corrigendum

(Tender No. IITD/CSC (SP-62)/2014)

Ref. In Tender	Condition in Tender	Change
Page 2, Schedule	Document Download/Sale End Date - 21/09/2014 (12:00 Hrs)	Document Download/Sale End Date – 25/09/2014 (12:00 Hrs)
Page 2, Schedule	Last Date and Time for Uploading of Bids 22/09/2014 (11:00 Hrs)	Last Date and Time for Uploading of Bids 26/09/2014 (11:00 Hrs)
Page 2, Schedule	Date and Time of Opening of Technical Bids 22/09/2014 (14:00 Hrs)	Date and Time of Opening of Technical Bids 26/09/2014 (14:00 Hrs)
Page 2, Schedule	Bid Validity days (180/120/90/60/30) – 180 days	Bid Validity days (180/120/90/60/30) – 90 days

Section II

Ref. In Tender	Condition in Tender	Change
Point 1, Delivery Mode	The rate quoted must be CIF. Indian Institute of Technology, Delhi	The rate quoted must be FOR. Indian Institute of Technology, Delhi
Point 2, Delivery Period	All the items covered in the Schedule of Requirements must be dispatched directly to IIT Delhi within 6 weeks from the date of establishing of Letter of Credit. The supply, installation & commissioning of HPC system at site must be completed within 8 weeks from the date of establishment of Letter of Credit.	The supply, installation & commissioning of HPC system at site must be completed within 12 weeks from the date of establishment of Letter of Credit.
Point 3.9, Warranty Services	Warranty shall not become void if IIT Delhi buys any other supplemental hardware from a third party and installs it with/in these machines. However warranty provided by the OEM/bidder/supplier shall not be applicable to such hardware items installed.	Warranty shall not become void if IIT Delhi buys any other supplemental hardware from a third party and installs it with/in these machines with authorization from the bidder. However warranty provided by the OEM/bidder/supplier shall not be applicable to such additional hardware items installed later.

Section II		
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Point 5, Eligibility Criteria	The bidder must have executed at least 2 supply orders/ contracts/ agreements for supply and installation of High Performance Computing Cluster having peak compute power of min 100 TF each AND one supply order/ contract/ agreement for supply and installation of High Performance Computing Cluster having peak compute power of minimum 200 TF in last three years. Out of these three systems, at least one system should be accelerator based. Additionally, the bidder must also have installed one cluster in India with a peak power of at least 50 TF. Documentary evidence (PO & Successful installation report) for the same should be furnished along with the technical bid	The bidder must have executed at least 2 supply orders/ contracts/ agreements for supply and installation of High Performance Computing Cluster having peak compute power of min 100 TF each AND one supply order/ contract/ agreement for supply and installation of High Performance Computing Cluster having peak compute power of minimum 200 TF in last three years. Out of these three systems, at least one system should be accelerator based. Additionally, the bidder must also have installed one cluster in India with a peak power of at least 25 TF. Bidders having less than 50 TF installation in India need to produce sufficient documentary proof showcasing their HPC support capabilities in India. Documentary evidence (PO & and successful installation report) for the same should be furnished along with the technical bid.
8.2, EMD	The EMD is required to be in the form of Demand Draft in favor of Registrar, Indian Institute of Technology Delhi, payable at Delhi for an amount of INR ₹50,00,000 (Rupees Fifty Lacs Only).	The EMD is required to be in the form of Demand Draft/Bank Guarantee in favor of Registrar, Indian Institute of Technology Delhi, payable at Delhi for an amount of INR 50,00,000 (Rupees Fifty Lacs Only) with validity of 6 months.

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16.3, Arbitration	In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director, Indian Institute of Technology (IIT) Delhi and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.	<p>The dispute resolution mechanism to be applied shall be as follows:</p> <p>In case of Dispute or difference arising between IIT Delhi and the Supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. Where the value of the Contract is above 1.00 Crore, the arbitral tribunal shall consist of 3 arbitrators, one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by mutual discussion between the Purchaser and the Supplier. The Arbitration and Conciliation Act 1996, the rules there under and any statutory modification or reenactments thereof, shall apply to the arbitration proceedings.</p> <p>Arbitration proceedings shall be held at Delhi, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English. The decision of the majority of arbitrators shall be final and binding upon both parties.</p> <p>The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation, etc., of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself.</p>

Section III		
Ref. In Tender	Condition in Tender	Change
1.1	Bidder can quote in Indian Rupees and USD only. The authorized partner may bid on behalf of their principals. In such cases the bidders must provide the details viz. name & address on whom the Supply Order/ Letter of Credit is to be placed/ established with bank/ account details etc. in their commercial bid. The EMD, Security Deposit and Performance Bank Guarantee should be provided by Indian representative in INR. IIT Delhi is exempted from custom duty and central excise duty in terms of Govt. of India notification	Bidder can quote in Indian Rupees and USD only. The EMD, Security Deposit and Performance Bank Guarantee should be provided by Indian representative in INR. IIT Delhi is exempted from Custom Duty (CD) and Central Excise Duty (CED) in terms of Govt. of India notification
New point added. 9A		Liability: Notwithstanding any other penalty condition in tender, the total liability of the bidder is limited to value of the purchase order
11, Sr. No.3	Copies of Last 3 financial Years duly certified, indicating details of Order Value executed.(Enclose Proof)	Copies of Purchase order and installation report as per eligibility criteria

Section IV		
Ref. In Tender	Condition in Tender	Change
Rack Model		Rittal Make DK-PS Enclosure- 42 U Rack (DK-PS Frame, 800W x 2000H x 1200D)
GPU/ Xeon Phi Login Nodes	6 x 600GB 10K RPM SAS Disks, Hardware RAID with support for 0,1 and 5.	2 x 600GB 10K RPM SAS Disks
GPU/ Xeon Phi Login Nodes	Four Gigabit Ethernet ports with PXE boot capability.	Two Gigabit Ethernet ports with PXE boot capability.
GPU/ Xeon Phi Login Nodes	DVD-RW drive	External DVD-RW drive can be quoted
Compute Nodes	nodes with 768 GB RAM	512GB RAM (instead of 768GB) can be quoted
Management/IO nodes		2U or smaller form factor allowed
Storage	Storage Capacity: Total 1PB usable capacity (Hardware RAID6) with 5 GBps/100TB write throughput based	Total 1PB usable capacity (Hardware RAID6 or equivalent) with 5 GBps/100TB write throughput based

Section IV		
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	on OEM supported Lustre or GPFS parallel file system.	on OEM supported Lustre or GPFS parallel file system.
	<p>Storage Capacity & performance: Should be configurable into two appropriately sized partitions/file systems of scratch and home. Exact sizing of home and scratch file system will be done after acceptance. Each file system must be scalable to 5PB usable capacity just by adding disks and enclosures in same configuration</p> <p>Metadata Space: metadata capacity to accommodate 1 Billion files each in home and scratch space. Each file system must be capable of 50000 files create/sec metadata performance. RAID rebuild time < 24 hrs while system is live</p>	<p>Storage Capacity & performance: Should be configurable into two appropriately sized partitions/file systems of scratch and home. Exact sizing of home and scratch file system will be done after acceptance. Each file system must be scalable to 5PB in same configuration</p> <p>Metadata Space: metadata capacity to accommodate 1 Billion files each in home and scratch space. Each file system must be capable of 25000 files create/sec metadata performance. RAID rebuild time < 24 hrs while system is live</p>
	Benchmark: Multiple PFS clients (minimum 16) creating 4KB files in single shared directory demonstrating minimum of 50,000 files create/sec	Benchmark: Multiple PFS clients (minimum 16) creating 4KB files in single shared directory demonstrating minimum of 50,000 files create/min
	Storage solution must not consume more than 2 x 42U racks each with max 12 KW rating. Vendors must provide peak power, cooling and weight for the storage solution.	Storage solution must not consume more than 3 x 42U racks each with max 12 KW rating. Vendors must provide peak power, cooling and weight for the storage solution.
	Quoted storage solution must have at least three installations of 500 TB, with similar throughput, one in India, with non-negative user experience of longer than 1 year	Quoted storage solution must have at least three installations of 100 TB, with non-negative user experience of longer than 1 year
Backup/Archive	1 Petabyte native capacity Tape Library based on LTO6	1 Petabyte (PB) native capacity Single Modular/Chassis Tape Library based on LTO6
	Posix compliant Backup/Archive software and required licenses to take policy based backup of home file-system. It should be quoted for unlimited client licenses.	Posix compliant or equivalent Backup/Archive software and required licenses to take policy based backup of home file-system. It should be quoted for unlimited client licenses.
	Management Feature:	It should scans metadata indexes

Section IV		
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	Automated scheduling for scanning tapes	along with physical scanning of the media cartridges as well, to check the data & Media integrity by comparing the metadata and physical data on cartridges including Data's & Media's lifecycle information e.g. Good/ Suspect / Bad.

Section V		
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Section V	Benchmark results need to be submitted along with the bid.	New application benchmark has been updated on the website (http://web.iitd.ac.in/~subodh/hpcTender/bench). Please refer the same. Benchmarks need not be submitted along with the bid. However bidders must commit to the timing better than mentioned in the benchmark Table A, and this has to be completed and verified on the proposed system after installation. Additionally, for stability test of the installed system, bidders must demonstrate better timings than those given in Benchmarks Table B and this will be part of the acceptance criteria. Input files for GROMACS and WRF has been updated and can be found at the link given above.

Section VII		
Ref. In Tender	Condition in Tender	Change
Section VII	Price/Commercial Bid	New Table is attached. Please fill this updated Price Bid along with the bid. All line items must be filled. Failure to do so will lead to disqualification of bid.
DCIM Software Version		GFS Crane Version 2.5

Section VII: PRICE / COMMERCIAL BID

NO:

Item No.: Supply & Installation of HPC Cluster & Storage at IIT Delhi

Note: Must fill each and every Line Item mentioned along with unit cost and quantity in the below table. **Mandatory Items: Quantity as per Section IV**

Sr. No	Name and Specification of the Item	Unit Cost (Please mention the Currency here _____)	Qty	Total Cost
1	Master Node			
2	Login/Compilation nodes			
a.	CPU Only			
b.	GPU Enabled			
c.	Intel Xeon Phi Enabled			
3	Boot servers for diskless clients along with shared 5TB storage			
4	Compute Nodes			
a.	Only CPU(64GB RAM)			
b	With 512 GB RAM			
c	GPU Enabled(64GB RAM)			
	Node Price without GPU			
	2 * Nvidia K40			
d	GPU Enabled With 512 GB RAM			
	Node Price without GPU			
	2 * Nvidia K40			
e	Intel Xeon Phi Enabled(64GB RAM)			
	Node Price without Xeon Phi			
	2 * Intel Xeon Phi			
f	With 512 GB RAM			
	Node Price without Xeon Phi			

	2 * Intel Xeon Phi			
5.	Management node			
6.	Storage			
7.	Backup/Archive			
8.	Software			
a.	Cluster management tool			
b.	Operating System			
c.	Intel Cluster Studio XE with 25 user floating licenses			
d.	PGI CDK with support for GPU's for 25 user floating licenses			
9.	Primary Communication Network			
a.	Single Chassis switch with backplane configured for 100% non-blocking for all ports without leafs			
b.	18 port leaf with 18 optical 10Mtr. Infiniband cables			
c.	Unified Fabric Manager			
10.	Secondary Communication Network			
11.	Intelligent PDU			
12.	Installation and commissioning charges			
13.	Any additional Items required to complete the solution (provide detailed itemized list)			
14.	AMC for all the above components for 4 th year			
15.	AMC for all the above components for 5 th year			

Additional Items: This cost will not be included in computation of L1. All Additional Items must be quoted. Up to 150 Additional nodes (all with std 64 GB RAM) may be purchased. These must integrate with the base cluster. The unit node cost should include HCA cost, cable cost and amortized per-port cost of the secondary management network and any other required item.

Sr. No	Name and Specification of the Item	Unit Cost (Please mention the Currency here _____)	Qty	Total Cost
1	Workload Manager with 3yr support			
2	AMC for 4 th year for Workload Manager			
3	AMC for 5 th year for Workload Manager			
4	AMC for 6 th year for mandatory items			
5	AMC for 7 th year for mandatory items			
6	Additional unit CPU-node price with 3 year warranty			
7	Additional unit GPU-node price with 3 year warranty			
8	Additional unit GPU-enabled node (without GPU) price with 3 year warranty			
9	Additional unit PHI-node price with 3 year warranty			
10	Additional unit PHI-enabled node (without PHI) price with 3 year warranty			
11	18 port Infiniband Leaf switch with 3 Year Warranty			
12	AMC for 4 th year per CPU node			
13	AMC for 5 th year per CPU node			
14	AMC for 6 th year per CPU node			
15	AMC for 7 th year per CPU node			
16	AMC for 4 th year per GPU node			
17	AMC for 5 th year per GPU node			
18	AMC for 6 th year per GPU node			
19	AMC for 7 th year per GPU node			
20	AMC for 4 th year per PHI node			

21	AMC for 5 th year per PHI node			
22	AMC for 6 th year per PHI node			
23	AMC for 7 th year per PHI node			
24	AMC for 4 th year per Leaf switch			
25	AMC for 5 th year per Leaf Switch			
26	AMC for 6 th year per Leaf Switch			
27	AMC for 7 th year per Leaf Switch			

DUTIES & TAXES (if applicable):

1. Excise : _____ 2. Freight : _____
3. V.A.T. : _____ 4. Octroi : _____
5. Others, (if any): _____

We agree to supply the above items for total (` _____ Amount in figures)
(` _____ Amount in words) within the period specified in the Invitation for Quotations.

Signature of Supplier
(Authorized Signatory)

Stamp