

Tender Enquiry No IITD/SCFBio/PFS Expansion/01

**Indian Institute of Technology Delhi**  
**Hauz Khas, New Delhi - 110 016**

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**Due Date: 27<sup>th</sup> Feb, 2013**

**Subject: Expansion of existing Parallel File Storage System/device (IBM DS3524) at Supercomputing Facility for Bioinformatics & Computational Biology, IIT Delhi**

**1. Background:**

**Supercomputing Facility for Bioinformatics & Computational Biology (SCFBio) IIT Delhi** is intending to scale up/expand its existing GPFS based **IBM System Storage DS3524** (Parallel file storage system) which is currently integrated with the existing HPC Setups. SCFBio is having 3 HPC Clusters on infiniband network (One on DDR IB, another on QDR IB and the third one is on Gigabit).(Technical Specification is mentioned below). The scale up is there in terms of adding more SAS Disks/extra modules of similar capacity in the same GPFS environment. The upgraded storage device has to be integrated with all the three clusters and has to act as a High Performance Parallel File storage device for the clusters.

Sealed tenders (technical & commercial are to be provided separately) are, therefore invited from reputed vendors for the aforesaid purpose as per the details given in the technical specifications. These details are available on the IIT Delhi website [www.iitd.ac.in](http://www.iitd.ac.in) and SCFBio's web site: [www.scfbio-iitd.res.in](http://www.scfbio-iitd.res.in)

**2. Eligibility Criteria of Bidders:**

- i) Bidder should preferably be either an **Original Equipment Manufacturer (OEM)** or should be **Authorized System Integrator Partner** having Direct Purchase and Support Agreement with the OEM. In case the tenderer is a System Integration Partner of the Principal Manufacturer, a Certificate from the Principal Manufacturer clearly stating the relationship with the Partner and authorization to the Partner to quote for this Specific tender Enquiry is to be furnished.
- ii) All **Components** offered in the Bill of Material should be covered under OEM support enabling program so that to get back end support / benefits from Principles / OEM in terms of Free Software Update Support / Maintenance releases, if any, to particular Software Version, Access to 24 x 7 x 365 online support from Technical Assistance Center of OEM for resolution of problems with the help of Online tools and technical database for on-line resolution, advance defective part replacement during warranty period (3 years) within a period of two working days and OEM Login Access. The undertaking from the OEM for the same should be enclosed with the technical bid.
- iii) a). Bidder should have supplied and installed similar type of equipment mentioned in the Technical specification in the last 24 months  
**or**  
b) At least one similar completed work costing not less than the amount equal to 80% of

the estimated cost.

**or**

- c). At least two similar completed works costing not less than the amount equal to 50% of the estimated cost,

**or**

- d) At least three similar completed works costing not less than the amount equal to 40% of the estimated cost,
- e) Copies of work orders for implementation of Parallel file Storage System for MPI applications successfully executed during last three years, out of which at least one order should be of value not less than 80% of estimated cost
- f) Financial standing through latest ITCC, Annual Report (balance sheet and Profit and Loss Account) of last 3 years

### 3. Obtaining Bid Documents:

- i) The bid documents can be downloaded from IIT Delhi website [www.iitd.ac.in](http://www.iitd.ac.in) or SCFBio website [www.scfbio-iitd.res.in](http://www.scfbio-iitd.res.in).

### 4. Submission of Proposals:

- i) The bidder shall go through the entire document and must comply with all the terms and conditions. A Compliance statement in the form of 'Complied' or 'Not Complied' shall be given against each item and specification of the tender documents. The compliance statements should be supported by authentic documentation. **Please note that any deviation from the laid down requirements/specifications shall be duly signed and stamped by the bidder.** Failing to comply with this requirement may result in the bid being rejected.
- ii) The proposals shall be submitted in two parts and should be super-scribed as "**PART-I: COVER FOR TECHNICAL BIDS**" and "**PART-II: COVER FOR COMMERCIAL BIDS**".
- iii) **Part-I** shall be a Technical Offer with full details including description of Hardware / equipments so as to enable technical assessment of the proposal. This shall also include Earnest Deposit Money as per **Para 5**.
- iv) **The Technical bid** must be submitted in an organized and structured manner. No brochures/leaflets etc. should be submitted in loose form. The Technical Offer should consist of the following:
- A letter of authority duly signed by an authorized signatory.
  - Complete Technical Specification along with Make, Model, Manufacturer and Part Number.
  - Technical Documentation [ Product brochures, leaflets, manuals etc.]
  - Delivery and implementation schedule.
  - Compliance of terms with any deviation clearly indicated in remarks.
  - Warranty and AMC (Comprehensive Annual Maintenance) details.
  - Do not fill any column related to commercials.**

- v) **Part – II** should contain **The Commercial Bids** for the entire proposal. The rates should be quoted in Indian Rupees / USD. All prices shall be fixed and shall not be subject to escalation of any description. Also following details should be provided:
- a. A letter of authority duly signed by an authorized signatory.
  - b. All costs should be given in Figures and Words.
  - c. Govt. Levies like Sales Tax, Octroi, Excise Duty, Work Contact Tax (WCT) and Education cess etc., if any, shall be paid at actual rates applicable on the date of delivery. Rates should be quoted accordingly giving the basic price, duties and taxes etc., if any.
  - d. Include information as to Technical offer.
  - e. Itemizes prices for each equipment, cabling, and installation, and total cost.(Prices should be quoted as CIF New Delhi, for items to be imported, inclusive of sales tax / Vat if suppliers are local.
  - f. Terms of Payment.
  - g. Period of validity of Bid.
- vi) **Both the covers should be first sealed separately** and then both the cover should be kept **in a single sealed bigger cover**. This envelope should be duly signed by an authorized signatory and should bear the inscription as given in tender notice.
- vii) **Bids Acceptance:** The bid must reach

**Supercomputing Facility for Bioinformatics & Computational Biology, 3<sup>rd</sup>  
Floor (above Sip n Bite), Synergy Building, IIT Delhi, Hauz Khas, New  
Delhi -110016, Phone +91-11-26596786**

on or before **27<sup>th</sup> Feb, 2013**. Bids received after the due date and time are shall be rejected. In the event of due date being a closed holiday or declared holiday for Central Government offices, the due date for submission of the bid will be the following working day at the appointed time and venue.

viii) **Validity of bids:** Bids should be valid for a minimum period of 90 days after the due date.

#### **5. Earnest Money Deposit:**

- i) Each bid for this augmentation must be accompanied by Earnest Money Deposit of Rs. 1,00,000 in a (sealed envelope)of the quoted price in the form the form of Demand Draft/Pay Order/Bank Guarantee of any Indian Nationalized Bank taken in the name of 'Registrar, IIT Delhi'. Bank Guarantee should be valid for a minimum period of 90 days from due date of the quotation. **Quotations received without Earnest Money Deposit shall be rejected. It should be a part of Technical Bid.**
- ii) Earnest Money shall be forfeited and bid is liable to be rejected, if the bidder withdraws or amends or impairs or derogates from the tender in any respect within the period of validity of the tender.
- iii) The Earnest Money of unsuccessful bidder shall be returned within one week of finalization of purchases.
- iv) The earnest money shall be liable to be forfeited upon non supply of order.
- v) No interest will be payable by IIT Delhi on the Earnest Money Deposit returned to the unsuccessful bidder.

## 6. Rejection of Bids:

- i) IIT Delhi reserves the right to accept or reject any bid or cancel the tender proceedings without assigning any reason whatsoever.
- ii) If a bidder gives wrong information in their bid, IIT Delhi reserves the right to reject such bid at any stage and forfeit the Earnest Money Deposit / Performance Guarantee / Security Deposit and cancel the contract, if awarded.
- iii) Incomplete quotations are liable to be rejected.
- iv) **If the technical offer contains any price information the offer will be summarily rejected.**
- v) Canvassing in any form in connection with the tenders is strictly prohibited and the bids submitted by the bidders who resort to canvassing are liable for rejection.
- vi) IIT Delhi may not pay any costs incurred towards preparation and submission of the bid of any other expenditure in this regard.
- vii) Unsigned tenders, unattested corrections and over writing by bidders are also liable for rejection.

## 7. Evaluation Process:

For the bidders satisfying the Qualifying Criteria and Technical Specifications, the price comparison shall be made over the total cost of the project with three years of comprehensive warranty. The lowest price in terms of cost to performance ratio will be selected.

## 8. Payment Terms:

Payment for this augmentation shall be made in INR/USD with all taxes and levies except custom duty and excise duty since the Institute is exempt from CD & ED. Vendor must indicate their preferred mode of payments in the price bid.

## 9. Clarifications:

In case the bidder requires any clarification regarding the tender documents, they are advised to submit their question in writing to SCFBio, 3<sup>rd</sup> Floor, Synergy Building, IIT Delhi.

## 10. Quantity Variations:

The proposed solution is subject to change depending on requirement.

## 11. Inspection:

IIT Delhi shall have the right to inspect or to test the items after delivery to confirm their conformity to the required specifications. The supplier shall provide all reasonable facilities and assistance to the inspector at no charge to IIT Delhi. In case any inspection of tested service fail to conform the specifications, IIT Delhi may reject them and supplier shall make all alterations necessary to meet specification required free of cost to IIT Delhi.

**12. Performance Bank Guaranty:** A Bank guaranty of 5% of the total amount should be given by the vendor on whom the order is placed. It should be for a period of two months beyond the date of completion of performance obligations under the contract. The amount and the validity period are to be specified in the bidding documents itself.

### 13. Warranty:

- i) **Three Years comprehensive warranty** should be given by the vendor. Warranty shall include free maintenance of the whole equipment supplied including free replacement of part. The defects, if any shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. Free Software Update Support. No separate payment shall be made for the maintenance of equipment / hardware and software during the warranty period.

### 14. Supply and Installation:

- i) This is a time bound and high priority project. It must be understood that the bidder has made the proposal after fully considering all such factors, which may have any bearing on the time schedule. The bidder will be required to supply, install and enable services at all the locations **within 8 and 12 week respectively** from the date of placement of work order in the order of priority as will be decided by IIT Delhi.
- ii) The bidder will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc. at his own cost.
- iii) IIT Delhi will have the right to reject the component /equipments supplied, if it does not comply with the specifications at any point of installation/inspections.

### 15. Liquidated Damages:

If the supplier fails to deliver any or all of the goods or complete the installation within the period specified in the purchase order, IIT Delhi shall without prejudice to its other remedies, deduct as liquidated damage **0.5 percent** of the price of the delayed goods for every week or part thereof while making the initial payment itself.

### 16. Force Majeure:

If there is a delay in performance of schedules of contract due to event of Force Majeure, IIT Delhi may deal with the case differently.

### 17. Arbitration and Laws:

Except where otherwise provided for in the contract, all questions and disputes relating to interpretation and application of the provisions of the contract shall be settled mutually within thirty (30 only) days (or such longer period as may be mutually agreed upon) for the date that either party notifies in writing that such dispute or disagreement exists, under the Rules of India Arbitration and Conciliation Act, 1996. The venue of Arbitration shall be New Delhi, India. The arbitration resolution shall be final and binding upon the parties and judgment may be entered thereon, upon the application of either party, by any court having jurisdiction. The Indian laws shall govern this contract.

## **Terms & Conditions**

1. IIT Delhi is exempted from paying custom duty under notification No.51/96 (partially or fully) and necessary "Custom Duty Exemption Certificate" can be issued after providing following information.
  - a. Shipping details i.e. Master Airway Bill No. and House Airway No. (If exists)
  - b. Forwarder details i.e. Name, Contact No., etc.

Custom Duty Exemption Certificate will be issued to the shipment in the name of the Institute and Bills of Entry should be submitted to IIT Delhi later on.

2. Either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
3. If the bidder is an authorized dealer of any manufacturer, the authorized Indian dealership certificate from the principles should be enclosed. Similarly, proprietary certificate for proprietary items should be provided.

A Valid Agency Ship/Dealership Certificate (Specific to this tender) authorizing the agent to quote to IIT Delhi on behalf of OEM/Principals should be enclosed of a latest date in original along with the technical bid.

4. IIT Delhi is exempted from paying Excise Duty and necessary Excise Duty Exemption Certificate will be provided for which following information is required.
  - a. Quotation with details of Basic Price, Rate & Amount on which ED is applicable.
5. Please quote prices of imported items at FOB (Freight on Board) IIT Delhi inclusive of all taxes, freight, delivery, installation and onsite training charges. The quotation should provide the total price of the system including all taxes and transportation charges. In case of CIF any demurrage charges (if any) imposed by the customs will be solely borne by the bidder.
6. Three years comprehensive warranty be provided and AMC price beyond 3 years should be mentioned separately.
7. Payment Options  
Letter of Credit: 90% payment against shipping documents & balance 10% after satisfactory installation.

Other payments (like support, installation, etc) will be made after successful installation as per IIT Norms.

8. Quotation must indicate a delivery schedule, which in no case should exceed 8 weeks from the date of placement of order.
9. Warranty: at least 3 years onsite warranty should be provided.
10. The quotations must have validity of at least three months.

- 11.** Compliance Chart for the general terms conditions and also for the technical requirement should be clearly attached along with technical bid.
- 12.** The products will be used for educational purposes. Any applicable academic institution discounts should be offered and stated clearly.
- 13.** Authority of IIT Delhi reserves the right to reject any or all quotations without assigning any reasons

**Technical Specification for the expansion of the  
Parallel File Storage System for SCFBio, IITD**

## Technical Specification for the proposed expansion

### I) Existing Compute Setup at SCFBio

1 Sun Fire X4240 Server (Master node) + 40 node Sun Fire X2200 Server (AMD Opteron Processors) (Compute nodes) cluster connected over a DDR IB (MTS-3600R) and also a 1 Sun Fire X4240 Server (Master node) + 35 node Sun Fire X2200 Server (AMD Opteron Processors) (Compute nodes) cluster connected over a QDR IB (MIS-5025Q).

1 SUN Fire X2200 cluster (26 nodes AMD Opteron Processors) over Gigabit switch.

### Existing Storage Setup at SCFBio:

Usable **25 TB** storage for the HPC cluster (10 TB per cluster and 5TB free for to be used by PFS on demand) with atleast 6Gbps SAS-II, 10K RPM Disks or SSD Disks or better and Hardware RAID 5 and maximum 7+1 Raid Group size.

Below is the detailed Bill of Material of IBM Storage System (existing).

1746A4D	IBM System Storage DS3524 Express Dual Controller Storage System	1
68Y8434	2GB Cache Upgrade	2
68Y8432	8Gb FC 4 Port Daughter Card	2
81Y9915	900GB 10,000 rpm 6Gb SAS 2.5" HDD	42
39R6529	IBM 1m SAS Cable	1
39R6529	IBM 1m SAS Cable	1
68Y8436	4 to 8 Partition Upgrade	1
69Y2876	8Gb FC SW SFP Transceivers (Pair)	4
39M5697	Fiber Cable, 5 meter multimode LC-LC	8
1746A4E	IBM System Storage EXP3524 Express Storage Expansion Unit	1
69Y0245	Environmental Services Module (ESM)	1

### Upgrade/Scale up of existing IBM Storage System DS 3524 to full capacity:

- By addition of same capacity and type disk
- Increasing Disk to max capacity by adding 150 additional disks.
- Addition of Storage Expansion units with necessary connection cables
- Configuration of 1 Hot spare disk in each expansion to be retained while upgradation of Storage System.
- Providing the GPFS software, licenses (if required) as a part of the procurement at no extra cost.
- The desired scale up should not disturb the existing set up.
- Any component required for the integration of the additional disks/modules has to be supplied by the vendor.
- Warranty for Disks for IBM System Storage DS3524 should also include the current remaining warranty of existing DS 3524 storage including the support maintenance for the GPFS and other exiting softwares.

**\*(The capacity of the desired number of disks/storage could be increased or decreased slightly depending on the availability of funds).**

## Scope of Work:

<ul style="list-style-type: none"><li>▪ Vendor has to configure the PFS by using existing servers, storage, and GPFS software. Any additional component required should be clearly mentioned in the bid.</li></ul>
<ul style="list-style-type: none"><li>• Vendor has to assure that the storage system after the expansion would be fully compatible with the existing set up and can be easily integrated with servers. In case of any issue the responsibility has to be taken up by the vendor and has to be rectified by the vendor in terms of support for the GPFS software, Operating system, drivers, libraries, Compilers, etc.</li></ul>

## The entire installation must be done by the vendor with following responsibilities

- a) The entire set-up should be ready with middleware for parallel job submission, queuing system, job monitoring.
- b) All peripherals (connecting wires, ties, network cables, etc) required for the setup should be provided by the vendor.
- c) All the components under the procurement should come with comprehensive on-site warranty for a minimum of 3 years.
- d) All the compilers and libraries (like C, C++, Fortran, etc if required) along with the licenses required to run the job in the parallel environment on the proposed machine/architecture should be provided by the vendor.
- e) The performance should be certified on IOR Performance Benchmark.
- f) Any other necessary component which is not mentioned in the document but will be required to fulfill the requirement and the scope of the tender has to be clearly mentioned and should be supplied by the vendor at no extra cost.

## Training:

Training should be given during installation to at least two persons from the Supercomputing Facility for doing System management/administration jobs.

## **Check List**

Please verify the following documents before submission of the tender, to avoid rejection or disqualification of your tender.

- 1) Separate Sealed Envelopes containing the Technical and Commercial Bid. Technical bid should not contain any price information.
- 2) Earnest Money Deposit of Rs. 1,00,000 of the quoted price in the form of Demand Draft/Pay Order/Bank Guarantee of any Indian Nationalized Bank
- 3) Price Schedule with terms and conditions
- 4) Statement on Compliance of the Technical Specifications with deviations, if any
- 5) Three Years Comprehensive Warranty on the Products along with AMC.
- 6) Copies of work orders for Parallel File Storage System implementation executed during last three years
- 7) Income tax clearance certificate issued by the concerned IT circle for the past three years with the seal of the tenderer.
- 8) For the Commercial bid a letter of authority duly signed by an authorized signatory should be attached.
- 9) Delivery and implementation schedule
- 10) The tender document should be submitted on or before the due date.
- 11) The Vendor should make sure that the entire component he is providing for the implementation should be sufficient and compatible with the existing setup.

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