

Tender Enquiry No IITD/SCFBio/Data Centre/Part2

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

(Ph. No. 011-26596786; FAX No. 011-26582037)

Due Date: 23rd Jan, 2009

**Subject: Creation of a Data Center at Supercomputing Facility for
Bioinformatics & Computational Biology, IIT Delhi**

1. Background:

Supercomputing Facility for Bioinformatics & Computational Biology (SCFBio) IIT Delhi intends to create a Data Centre for its computational resources located at 3rd floor, Synergy Building, IIT Delhi. The Data Centre solution requires two 40 KVA UPS for providing uninterrupted supply to the Server, Racks, Switches and all other critical devices placed inside the Data Centre so that they can run continuously (24x7x365) without failure.

Sealed tenders (technical & commercial are to be provided in separate sealed envelopes) 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 and SCFBio's web site: 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 Support / Maintenance, if any, Access to 24 x 7 x 365 online support from Technical Assistance Center of OEM for resolution of problems with the help of their technical team onsite/offsite, 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
 - b) At least one similar completed work costing not less than the amount equal to 80% of the estimated cost.
 - 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 Data Centres 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
- iv) In this bid, the bidder should submit complete technical details of the proposal, including all plans, layout, drawings, makes, models and other relevant details. The bidder should also, as part of the technical bid, submit the company profile, organizational setup, list of plant, machinery & tools in his possession; copies of work orders for power, cooling, and associated works for data centre, successfully executed during last three years, No deviations in respect of Notice Inviting Quotation (NIQ) conditions are acceptable.

3. Obtaining Bid Documents:

The bid documents can be downloaded from IIT Delhi website www.iitd.ac.in or SCFBio website www.scfbio-iitd.res.in.

- i) The bidder for this solution must deposit a non-refundable fee of Rs.200/- in the form of Demand Draft of any scheduled bank payable at New Delhi in favor of "Registrar IIT Delhi" by **23rd Jan 2009**.

4. Submission of Proposals:

- i) The bidder shall go through the entire document and must comply with all the terms and conditions. **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. A letter of authority duly signed by an authorized signatory.
 - b. Complete Technical Specification along with Make, Model, Manufacturer and Part Number.

- c. Technical Documentation [Product brochures, leaflets, manuals etc.]
 - d. Delivery and implementation schedule.
 - e. Compliance of terms with any deviation clearly indicated in remarks.
 - f. Warranty and AMC (Comprehensive Annual Maintenance) details.
 - g. **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, 3rd
Floor (above Sip n Bite), Synergy Building, IIT Delhi, Hauz Khas, New
Delhi -110016, Phone +91-11-26596786**

on or before **23rd Jan 2009 at 3pm**. 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 Purchase must be accompanied by Earnest Money Deposit of 2.5 % (Two and a half percent) of the quoted price in 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 60 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 warrantee. The lowest price in terms of cost to performance ratio will be selected.

8. Payment Terms:

Payment for this Data Centre proposal shall be made in INR/USD including 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, 3rd 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. 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 weeks** 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.

**Technical Specification for the UPS Solution
for the Proposed Data Centre at SCFBio, IITD**

UPS Requirements & Features

UPS System design concept is based on redundancy and availability with true online system. To support the dual bus system configuration three units of UPS should be installed. The Zone A area should have three parallel redundant UPS and other areas like NOC, BMS and Staging Area should have a separate UPS system. Dual redundant UPS systems will take care of following needs –

- Rack mounted Servers and High Performance Cluster .
- Access Control / Fire Detection, suppression / surveillance system

The solution should be automatic with power supply from the transformer as the primary source and automatic switchover to DG set as a secondary source for the data centre. Earthing should be provided from the electrical room control panel to the Earthing pits.

It is recommended to have one set of 2 X 40 KVA UPS working in parallel redundant mode. The UPS system shall be provided for the Server Farm with a capacity to accommodate 6 racks.

UPS Modes of Operation

- The UPS shall operate as an ON LINE reverse transfer system using IGBT /PWM technology.
- The UPS system shall comply to the below mentioned norms –
 1. Inbuilt Isolation Transformer with each UPS unit
 2. 6 pulse Rectifier Passive I/P filter
 3. Input TDS > 0.92 , SNMP/EMS Optional compatibility
 4. Inbuilt provision to configure Parallel Redundant Configuration up to 8 sets for future expansion without want of any extra cubicle/circuitry
- The UPS to function under the below mentioned modes.
 - Normal - The UPS inverter continuously supplies the critical AC load. The rectifier / charger derives power from AC Input source and supplies DC power to the Inverter while simultaneously load charging power reserve battery.
 - Emergency (Failure of AC Input) – Upon failure of AC Input power, the critical AC load will be supplied by the Inverter, which without any switching obtains power from the battery. There shall be no interruption in power to the critical load upon failure or restoration of the AC input source.
 - Recharge – Upon AC power restoration the rectifier / charger shall automatically restart and supply power to the inverter and start charging the batteries.
 - Bypass – A static transfer switch should be provided for performing reverse transfer of the load from the inverter to bypass source with no interruption in the power to the critical AC load. A manually operated maintenance bypass switch should be incorporated with the UPS that will connect the load to AC power source bypassing the rectifier charger inverter and static transfer switch. The battery circuit breaker MCCB shall have O/L and U/V protection.
 - Paralleling Operations: The output of all the three UPS systems should be directly connected at the load distribution panel through individual circuit breakers (part of the distribution panel). The load at the output should be shared equally by all the UPS systems. The paralleling control mechanism should be available with individual UPS. There should not be any single point of failure which can lead to collapse of all the UPS systems.

Battery Requirements

Battery Bank should be designed to provide 30 minutes back up at full load for Server Farm Area. Battery should be sealed and maintenance free type. The plates shall be designed for maximum durability during all service conditions including high rate of discharge and rapid fluctuation of load. The UPS Module should have the battery circuit breaker mounted near to the batteries. When this breaker is opened no battery voltage should be present in the enclosure. The battery breaker should be automatically disconnected when the battery reaches to minimum discharge voltage level or when signaled by other control functions. Remote tripping of Battery circuit breaker facility shall be also incorporated. The batteries should be housed in suitable Racks. Battery installation shall be outside the data center area to avoid fire hazard as recommended by NFPA guidelines.

Power Distribution

- Power cabling inside the STIL shall be of copper. The cables used inside the Data Center shall be of FRLS quality.

Technical Specification

Quantity

40 KVA True On-Line UPS systems Microprocessor based double conversion topology with Online UPS with IGBT based Inverter and features of provision of parallel redundancy with separate battery bank of sealed maintenance free batteries for 30 minutes on 60 KVA computer load along-with battery connecting wires and battery stand	2
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- **The Vendor Should ensure and certify that all the components for the UPS Solution quoted by him is typically designed to handle the server load. Also all the components quoted in the bid should be of reputed and tested quality.**
- **All the installation and commissioning work should be done by the Vendor**
- **Vendor should prepare a summary sheet in tabular form and has to mention all the relevant parameters like**
 - I. **UPS make offered**
 - II. **KVA rating**
 - III. **Capacity of each UPS**
 - IV. **Technology type**
 - V. **Input voltage**
 - VI. **Input power factor**
 - VII. **Rectifier type**
 - VIII. **Charger type**
 - IX. **Max. Charging time**

- X. **Battery type & make**
- XI. **Battery vah**
- XII. **Ah rating**
- XIII. **Output voltage**
- XIV. **Voltage regulation**
- XV. **Output frequency**
- XVI. **Thd(v) at output**
- XVII. **Static bypass switch**
- XVIII. **Manual bypass switch**
- XIX. **Noise leve**
- XX. **Testing standard**
- XXI. **Dimensions(WXD X H)**
- XXII. **Protections**
- XXIII. **Indications / faults**
- XXIV. **Ventilation**
- XXV. **Web-enabed snmp management**

Please Include the following in Technical Bid :

- I. Brand and model number of each equipment along with the product brochure containing detailed technical specifications.
- II. Compliance sheet product-wise detailing compliance with every specification or deviation therefrom.
- III. Duly signed manufacturer authorization certificate with enquiry reference number.
- IV. Proprietary item certificate for the manufacturer, if applicable.
- V. Period of delivery of equipment and period of installation and Commissioning if applicable.
- VI. List of similar projects executed in last two years, especially in and around Delhi.

Please include the following in the Financial bid

- I. 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
- II. Terms of Payment
- III. Warranty Period
- IV. Period of Validity of the Bid
- V. Earnest Money Deposit of 2.5 % (Two and a half percent) of the quoted price in 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 60 days from due date of the quotation

Check List

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

- 1) non-refundable fee of Rs.1000/- in the form of Demand Draft of any scheduled bank payable at New Delhi
- 2) Separate Sealed Envelopes containing the Technical and Commercial Bid. Technical bid should not contain any price information.
- 3) Earnest Money Deposit of 2.5 % (two and a half percent) of the quoted price in the form of Demand Draft/Pay Order/Bank Guarantee of any Indian Nationalized Bank
- 4) Price Schedule with terms and conditions
- 5) Statement on Compliance of the Technical Specifications with deviations, if any
- 6) Three Years Comprehensive Warranty on the Products along with AMC.
- 7) For the Commercial bid a letter of authority duly signed by an authorized signatory should be attached.
- 8) Delivery and implementation schedule
- 9) The tender document should be submitted on or before the due date.

Amendments to tender Enquiry No IITD/SCFBio/Data Centre/Part2 (Tender ID 2008/1846)

Check List

Sl. No. 1 – Should be read as

“Non-refundable fee of Rs. 1000/- in favour of Registrar IIT Delhi in the form of Demand Draft of any scheduled bank payable at New Delhi.”

Sl. No. 3 - Should be read as

“Earnest Money Deposit of 2.5 % (two and a half percent) of the quoted price in the form of Demand Draft/Pay Order/Bank Guarantee of any Indian Nationalized Bank in favour of Registrar IIT Delhi to be given in a separate sealed envelope along with the technical bid.”