# **CORRIGENDUM to Blade Server and Accessories**

Original Enquiry no. NITR/CC/HOD/L/2014/526 Dated 27.06.2014

#### Note: General conditions:

- 1. The hardware and software for the system should be quoted separately (financial bid only).
- 2. Both should appear as separate line items in the financial bid.

SI No.	Page	Clause		
	No.	No.	Existing Clause	Replaced by
1.	12	1.c	Same enclosure should support Intel Xeon, AMD Opteron and RISC/ EPIC processors based blades	Same enclosure should support Intel Xeon, AMD Opteron processors based blades
2.	12	2	Internal KVM switch should be provided in the chassis	Internal/ external/ virtual KVM switch should be provided in the chassis
3.	12	3	Should support simultaneous housing of Ethernet, FC, SAS, iSCSI and infiniband interconnect fabrics offering Hot Pluggable & Redundancy as a feature	Should support simultaneous housing of Ethernet, FC, iSCSI and infiniband interconnect fabrics offering Hot Pluggable & Redundancy as a feature
4.	12	4	The enclosure should be populated with network switches with Minimum 10 gigabit uplink ports to the data	The enclosure should be populated with network switches with Minimum 10 gigabit uplink ports to the data center switch. The module should support converged LAN and SAN for connecting
5.	12	6	Redundant I/O communication path between each of the blades and the chassis modules ensuring no single point of failure	The chassis and backplane should have redundancy for no single point of failure.
6.	13	11	All of blades each with total of 256GB DDR3. Each RDIMM module should be 1600MHZ. Each RDIMM should work at 1600MHz, 1. 35V even after populating all the DIMMs in the channel.	All the blades should be populated with 256GB DDR3 RAM @ 1800MHz. RDIMM should work at 1800MHz, 1. 35V even after populating all the DIMMs in the channel.
7.	13	12	Advanced ECC Memory Online Spare Mode (Rank Spare Mode) Lockstep Mode	Advanced ECC Memory Online Spare Mode (Rank Spare Mode) Lockstep Mode/ chipkill or equivalent
8.	13	13	2 TB Two number of internal Hot swappable SATA HDD (minimum 2 TB) support caution indicator to avoid human errors in replacing failed HDD.	2* 1TB internal hot swappable SATA HDD to be provided. The system should support caution indicator to avoid human errors in replacing failed HDD.
9.	13	15	One SATA Multi-Burner drive in chassis which can be shared by the blades.	Internal or external SATA Multi-Burner drive /One CDROM drive in chassis to be provided which can be shared by all the blades.
10.	13	17	Minimum of 1 * internal USB 2.0 port and 1 * internal SDHC card slot	Minimum of 1 * internal USB 2.0
11.	13	19	Minimum of 2Nos of PCIe 3.0 based mezzanine slots. One PCIe x16 based and one PCIe x8 based supporting Ethernet, FC adapters, Infiniband and SAS based adaptors	Minimum of 2Nos of PCIe 3.0 based mezzanine slots. One PCIe x16 based and one PCIe x8 based supporting Ethernet, FC adapters based adaptors

25/7/14

12.	14	21	Unified Extensible (UEFI) or equivale management moo Supports 64 bit an address 16TB of Must be virtualizati	Firmware Interface ent with integrated dule in the blade. rchitecture and can memory or more. ion enabled.	Supports 64 bit architecture, virtualization enabled
13.	14	23	Support of the foll software: • RHEV 3 • MS Windows S • VMware vSph	owing virtualization Sever 2012 Hyper-V ere 5	<ul> <li>Support of the following virtualization software:</li> <li>Redhat virtualization</li> <li>MS Windows Sever 2012 Hyper-V</li> <li>VMware vSphere 5</li> </ul>
14.	18	45	The Solution shoul & allow secure services, All cloud User portal, Adr Tenant portals & I operated in a secur	d be able to isolate access for cloud services portals – ninistrative portal, Dashboards shall be e manner.	The Solution should be able to isolate & allow secure access for cloud services, All cloud services portals – User portal, Administrative portal, Tenant portals & Dashboards shall be operated in a secure manner. This will ensure safe access to the cloud from public network.
15.	20	83	Products should manufacturer in proper functioni support and seamle	be from same order to ensure ng, compatibility, ess integration.	All hardware and software should from one manufacturer/ OEM
16.	20	86	New Clause		<ul> <li>The offered blade system inclusive of hardware and software will have to be installed by the OEM.</li> <li>Warranty should be provided by the OEM.</li> <li>The hardware and software combination quoted should have minimum two installations in India .Please provide customer contact for reference</li> <li>The OEM should have certified implementation and support personnel within their organization for the software. Please provide relevant employee details.</li> </ul>
17.	Installati	on		The installation will	be done by OEM not by bidder
18.	Price bid for hardware and software The price of hardware and software		dware and software should be quoted		

Technical Bid Opening: 13.08.2014, 5.00 PM Financial Bid opening: On completion of Technical Bid

Venue: Board Room

25

Prof. Ashok Kumar Turuk Head, Computer Centre

(allabor 711 Be 25/2/11 30/7/14 CS.K. Patra) (B.Munski)

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## NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA-769008 (ODISHA)

ROURKELA-769008 (ODISHA) TENDER NOTICE NO:-. NITR/CC/HOD/L/2014/525 (TENDER FOR 500TB SAN STORAGE AND ACCESSORIES ) Quotations are invited for supply and installation of 500TB SAN Storage and accessories at Computer Center, NIT Rourkela. TENDER NOTICE NO:-.NITR/CC/HOD/L/2014/526 (TENDER FOR BLADE SERVER AND ACCESSORIES ) Quotations are invited for supply and installation of blade server and accessories at Computer Center, NIT Rourkela. For details visit the Institute website: http://nitrkl.ac.in/lobs Tenders/9 Equipment/Default.aspx Pre-bid meeting :16.07.2014 Last date of Submission:23.07.2014 at 3.30 P.M Date of Opening:23.07.2014 at 3.30 P.M Contact:Prof. A.K. Turuk, Head, CC,Ph:.0661-2462360, email Id-akturuk@nitrkl.ac.in Prof. B. Subudh.Ex-Head,Computer Centre:Ph:06612462416,email:bidyadhar@nitrkl.ac.in Prof. S.K. Patra Chairman PC, CC; Ph: 0661-2462457 email:skpatra@nitrkl.ac.in 2462457email:skpatra@nitrkl.ac.in

An Institute where everyone strives to attain his potential

Registrar



#### NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA

#### Advertised/Open Tender Enquiry

#### Department: Computer Center Enquiry No: NITR/CC/HOD/L/2014/<u>52</u>6 Date: <u>37-06-14</u>

#### **Important Dates**

	Event	Date	Time
То	Pre-bid conference	16.7.2-14 J P4	J P4
	Last date of Submission of quotation	23. 7.2.14	3 PM
	Quotation Opening date	23. 7. 2014	3.30 PM

#### Dear Sir,

We intend to purchase the commodities specified in enclosed documents and invite quotations in accordance with the terms and conditions detailed in the bid document. Kindly send your offer with prices and complete terms and conditions within the time mentioned above.

Please send your quotation to:

#### Head, Computer Center

Attn.: Prof. B. Subudhi

NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA - 769 008, ODISHA

Yours Sincere

Prof. B. Subudhi Head, Computer Center

#### Encl:

Schedule of requirement, specifications, dates etc.
 Bid document containing detail terms and conditions.

Tender document for "Proposal for Blade Server NIT, Rourkela"

Page 1 of 21

#### 1. Schedule of requirements

Sl. No.	Description of Goods/Service	Quantity
1.	Blade Server and accessories as per detail in	1
	Annexure-A	

2. Specifications and allied Technical Details

As attached in annexure-A

3. Format of Quotation (tick appropriate box)

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It is a single bid; please give all technical specifications and price bid in one envelope. OR



It is a two-part bid with separate techno-commercial and price bids.

4. The bid envelope should be super-scribed with

Bid for Blade Server Accessories vide Enquiry No. NITR/CC/HOD/L/2014/	
Dated	

- 5. Quotations should be valid for a period of **180** days from the closing date of the bid.
- 6. Firms are strongly advised to attend the pre-bid meeting so that their queries elated to specification can be answered.
- 7. Some important dates:

a.	Pre-bid Conference:	Date:	16.07.2014	Time: 3.00 PM
b.	Last date for receipt of			
	quotation:	Date:	23.07.2014	Time: 3.00 PM
c.	Opening of techno-			
	commercial bid:	Date:	23.07.2014	Time: 3.30 PM
		1.0	1	

- d. Opening of Financial bid: After evaluation of techno-commercial bid
- 8. **Warranty** of 5 years for the hardware supplied
- 9. (a) **Excise Duty:** The Institute is exempted from Excise Duty (please refer point no. 2.2. in bid document). Please state applicable excise duty as a separate item.
  - (b) **VAT/CST:** The Institute is not authorized to give C or D form. CST or VAT should be charged according to applicable rates.
  - (c) **Entry Tax:** The State of Odisha charges entry tax on all goods entering the State. Please Include it in your quotation as a separate item. Entry Tax will be reimbursed on production of proof of payment.
  - (d) Institute can provide custom duty exemption certificate if the equipment can be imported.

This option can be considered if there is a price advantage.

- 10. **Bid Security** (See pt. no. 2.6 of instructions): Rs. 2,00,000 (Rupees Two Lakhs only) in form of Account Payee Demand Draft drawn in favour of "Director, NIT Rourkela", payable at Rourkela or Bank Guarantee to "National Institute of Technology, Rourkela" for 6 months.
- 11. **Performance Security** (See pt. no. 2.7 of instructions): Applicable for the party to be placed order.
- 12. Please go through the enclosed "bid document" carefully for other bidding instructions.
- 13(a) Please send your quotations by Registered/Speed Post or by Courier Service to:

Head, Computer Center Attention: Prof. B. Subudhi National Institute of Technology, Rourkela – 769 008 Ph.: 0661-2462416 email: bidyadhar@nitrkl.ac.in Superscribe the envelope

- (b) Drop the quotation in the Tender Box kept in the office of the Department during the normal working hours of the Institute. Please do not hand over the quotation to any person by hand.
- 14. For technical details, you may contact

Prof. B. Subudhi Head, Computer Center National Institute of Technology, Rourkela – 769 008 Phone: 0661 – 2462416 **E-mail: <u>bidyadhar@nitrkl.ac.in</u>** 



#### NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA 769008 (ODISHA)

Proposals (technical and financial) are invited in the shape of two bid system i.e. (Technical & Commercial) from reputed Indian firms for supply of Blade server, Blade chassis and Accessories. Sealed proposal should reach the undersigned by the date mentioned in point no.7 of tender enquiry. The representatives of the firms should be present during the technical presentation.

Kindly frame your proposal in two parts: technical bid and financial bid. Both parts should be clearly marked and individually sealed. The two sealed proposals along with statutory documents (in separate envelop) should be sealed in a larger envelope. The outer envelope should be superscripted with *"Tender for Blade Sever and Accessories"* and sent to *"Head, Computer Center, NIT, Rourkela, Odisha, Pin- 769 008"*. The quotation should be sent by speed post or hand delivered in the office of the Computer center before the time of tender opening. Important information related to venues and dates are mentioned at point no. 7 of tender enquiry.

# **BID DOCUMENT**

#### **1.** Instructions to the bidders

1.1 Sealed bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela – 769 008, Odisha, from the intending bidders for supply of the blade server and accessories for the Institute as detailed in the enquiry letter.

#### 1.2 **Eligibility of Bidders:**

- a) Blade server manufacturer (OEM)/ their exclusive system integrator should quote. The manufacturer should authorize the system integrator for the tender specifically. Each manufacturer is expected to authorize only one bidder to quote on their behalf.
- b) The OEM should have their office sales/ service support in Eastern India (Kolkata/ Bhubaneswar/ Raipur/ Ranchi/ Jamshedpur) or any other place and should be able to provide the service in 12 hours. Evidence to this effect to be enclosed.
- c) The product quoted should have been supplied to at least 3 organizations in India in the last two financial year combined. i.e., FY 2012-13 and 2013-14 (Sales in FY 2014-15 will be considered as a part of 2013-14)
- 1.3 Firms are advised to study all technical and commercial aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information required in the Tender Document in every respect will be at the firm's risk and may result in the rejection of the bid. The bidder should enclose a signature copy of bid document (each page to be signed)
- 1.4 The bidders should quote their offer/rates in clear terms without ambiguity.

- 1.5 All damaged or unapproved goods shall be returned at the firm's risk and the cost of incidental expenditure thereupon shall be recovered from the concerned party.
- 1.6 Printed conditions of the firm sent along with the quotation, if any, shall not be binding on us.
- 1.7 The rates should be quoted both in figures and words and legibly written without any overwritings. In case of any correction, the same must be attested by the bidder with full signature. However, no over-writing is permissible. Manufacture's price-list, where applicable, should be submitted along with the bid.

Any discrepancy between quoted prices in figures and that in words, if noted, will be sorted out in the following manner:-

- a. If there is a discrepancy between the unit price and the total price the unit price shall prevail and the total price will be corrected accordingly.
- b. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
- c. If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to above.
- 1.8 The last date for receipt of the bid is marked in the enquiry. In case the above date is declared a holiday for NIT, Rourkela, then the bids will be received up to the appointed time on the next working day.
- 1.9 There will be a pre-bid conference in the office of the Computer Center as per the schedule given at the top of the document. For clarifying issues if any, about the specification and other allied technical details regarding Blade Server and accessories in bid document, firms may contact to the Head, Computer Center. The prospecting bidders should attend this pre-bid conference at the appointed date, time and place.
- 1.10 The bids may be sent by registered or speed post or by courier service, so as to reach the concerned department before the last date of receipt, or alternatively, be dropped in the tender box kept at the Computer Center.
- 1.11 The bidder may modify the bid before the last date appointed for receipt of the bids by sending an amendment to the bid. No bid shall be modified after the deadline for receipt of the bids.
- 1.12 If a prospective bidder requires any clarification related to the bidding documents, he may make a request to Head, Computer Center at least 15 days before the deadline for receipt of bids.
- 1.13 Bids received after the deadline indicated in point no.7 in tender enquiry, shall not be taken in to consideration.
- 1.14 Each OEM shall submit only one bid either directly or through its system integrator. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
- 1.15 The bids should be submitted in two parts, (i) technical bid and (ii) financial bid. The above two bids may be sealed by the bidder in separate cover duly super-scribed and both these

sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed.

1.16 <u>Clarification regarding tender document:</u> A prospective firm requiring any clarification of the tender document may do so through email or in person during pre-bid meeting. No clarification will be issued after the pre-bid meeting.

### 1.17 Amendment of Tender Document:

- a. At any time prior to the last date for receipt of bids, the client may modify the tender document by an amendment for any reason, whether at its own initiative or in response to a clarification required by a prospective firm.
- b. The amendment will be notified in writing by email to all prospective firms who have received the tender documents and will be binding on them.
- c. The client may, at its discretion, extend the last date for the receipt of the bids if required.
- 1.18 The cover containing the bid must be sealed and super-scribed "Bid for *Tender for Blade Server & accessories*" No. NITR/CC/HOD/L/2014/\_\_\_\_ dated \_\_\_\_\_" as given under item 4 of the enquiry.
- 1.19 The bids shall be opened in the Computer Center at the date and time given on the top of the document. The bidders may send their authorized representatives to attend the bid opening, if they so desire. In the event of the above bid opening date being declared holiday for the NIT, Rourkela, the bids will be opened at the appointed time and place on the next working day.
- 1.20 **<u>Tender Opening</u>**: The authorized personnel from the company may be present at the tender technical bid opening with the valid authorization letter. The technically qualified bidders will be informed after which Commercial Bid opening will be done and finalized on same day.

All the services/ items to be supplied should be new, of latest technology, good quality and standard and as per specifications mentioned. The selected vendor shall be responsible for total system integration and management wherever applicable.

## 1.21 Submission of offer

- a. The firm shall bear all costs associated with the preparation and submission of its Bid, including the cost of presentation for the purpose of clarification of the bid, if so desired by the client and the client will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.
- b. All prices and other information like discounts etc. having a bearing on the price shall be written both in figures and words in the form. Where there is a difference between amounts quoted in words and figures, the amounts quoted in words shall prevail. The Excise Duty, Sales Tax, VAT, Service Tax etc. as applicable on educational institutions which are not meant for profit should be quoted separately, failing which, the Institute shall have no liability to pay these charges and the liability shall be that of the firm.
- c. Each page of the offer shall be numbered and bear the signature of the firm at the bottom. All offers shall be either typewritten or written neatly in indelible ink. Any corrections should be properly authenticated.

- d. The offers should be addressed to the **Head**, **Computer Center**, **Attention**: **Prof. B. Subudhi, Computer Center, NIT, Rourkela-769008** giving indication that it contains the tender under sealed cover.
- e. The first cover shall be superscripted "*Tender for Technical Bid for Blade Server and accessories*". The followings may be looked into while preparing the first cover.

# **Envelop- A** Envelop should be superscribed "Statutory documents for Bid". General Criteria Documents.

- Bidders must produce valid tender specific authorization certificate from the OEM.
- The list of client (at least three) with contact details of a person (phone/ mob no. with email ids) where the bidder had supplied specific Blade Server hardware. The Blade Server should be same series proposed here.
- Organizational details are to be enclosed in Covering Letter from Bidder (from all the collaborating consortium partners, as applicable).
- The bidder should enclose a copy of quality certificate from a recognized institution for their manufacturing/ assembly/ system integration facilities anywhere located in India or abroad. This certification should be from any globally recognized Institution
- Bidders must enclose details of their infrastructure with reference to locations and technical manpower, availability of inventory spares etc.
- Any eligibility Documents.
- Copy of Certificates/ P.O. with proof of having executed such similar projects.
- Bidder should submit valid documentary proof like Sales Tax/VAT, Service Tax registration number, the details of income tax registration (PAN), Copy of Income Tax Returns/ Clearance Certificate for last three years.
- Bidders must submit a declaration on their letter head that they are not black listed in any Govt. body, undertaking, PSU or autonomous bodies. If found the declaration is false their offer will be out rightly rejected and their EMD amount will be forfeited.
- Bid security: As stated in pt. no. 10 in enquiry.

# **Envelop- B** Envelop should be superscribed "Technical Bid". Technical Criteria Documents.

- Details of Hardware/ software included in offer.
- Details of Technical Specification and other specifications so as to enable technical assessment of the proposal.
- It should include technical compliance of the spec, and OEM available brochures with all technical details.
- Unpriced bid document exactly same as the price bid with full break up without the costs mentioned.
- All other relevant documents of this tender (excluding commercial part) should be included in this envelope.

# **Envelop- C** Envelop should be superscribed "Financial Bid".

# **Commercial Criteria Documents.**

- The second cover shall be superscripted, "Tender for Commercial Bid for Blade Server & accessories: Financial Bid".
- The commercial bid should essentially contain covering letter from the bidder.
- f. Both technical and commercial bid documents should be submitted in an organized and structured manner. No loose brochures/leaflets etc. should be submitted. All the three covers should be sealed separately and put in an outer cover, which is also sealed and addressed to the Head of the Department, Computer Center, NIT, Rourkela-769008 indication that it contains the Tender for purchase of Blade Server.

# 1.22 Evaluation of offer

- a. First, the technical bids will be opened by a committee appointed by the Director. At time of Technical Bid evaluation, the shortlisted vendors may be called for detailed discussions at a specified date, time and venue, if required. They may be asked to give demonstration of their product/services, if needed. Financial evaluation will be done for those bidders who will successfully qualify in the technical evaluation.
- b. The financial bids of the bidders found to be unsuitable in technical evaluation will not be opened for commercial evaluation.
- c. Firms whose financial bids are considered unworkable in view of prevailing market condition will be rejected. L1 will be awarded after financial comparative analysis of technically qualified bidders.
- d. If the Institute feels necessary, it may ask for revised bids from the shortlisted vendors which should be submitted within two days of intimation to this effect in sealed envelopes on specified date and time. The revised bids shall not be for amounts more than one quoted earlier for an item, unless the specification is of higher configuration than the earlier ones, by the respective vendor. Any vendor quoting higher rates for the same item quoted earlier in their revised Commercial bid shall be disqualified for further consideration.
- e. The Institute reserves the right to select the vendor on the basis of best possible specifications/ features quoted. The decision of the Institute shall be final and representation of any kind shall not be entertained on the above.
- f. Any attempt by any vendor to bring influence or pressure of any kind may disqualify the vendor for the present tender and the vendor may be liable to be debarred from bidding.
- g. The Institute shall have no obligation to convey reason for rejection of any bid. It shall be open for the Institute to reject even the lowest bidder in the interest of the Institute and no reasons need be given therefore.
- 1.23 **Technical Evaluation Parameters:** The vendor shall provide the following information with the bid to provide background information on vendor to Tender Committee. Weightage will be given to the vendors on point basis for the following details.
  - a. The list of clients (contact details of a person phone/ mob no. with email ids should be attached) where the bidder had supplied the similar type of materials (as mentioned in schedule of requirements) with successful installation in last three years.
  - b. Quality certificate from a recognized institution for their manufacturing/ assembly/ system integration facilities anywhere located in India or abroad.
  - c. Delivery period from the date of placement of the Purchase Order.
  - d. Customer support strength by the vendor.
  - e. Possible quicker availability of the vendor when problem occurs.

- f. Mode of handling complains (whether by fault ticket/ complain given by email or by phone etc.).
- g. Validity period of cost of equipment.
- h. *Necessary documents* as mentioned in point 1.21 (e) of the bid document.
- i. Training agenda covering details for three days training.
- j. Any other points may deemed fit by the committee at time of technical evaluation of bid documents.

# 2. Commercial or Legal Conditions of the bid

- 2.1 The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or ad valorem rate must be specified. Packing, forwarding, freight, entry tax etc., when quotes separately are reimbursable at actual. If external agencies are employed, their receipts must be enclosed with the invoice.
- 2.2 Duties and Taxes are to be quoted separately. Ad valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules. Entry Tax, if any paid, shall be reimbursed on production of proof. Entry Tax should be shown as a separate component.

It may be noted that the Institute is exempted from paying Excise Duty vide Government Notification No. 10/97 dated 01.03.1997 [Registration No.: TU/V/RG-CD (227)/2001, dated 10.12.2001]. The Institute is not authorized to issue C or D forms. CST and VAT may be charged at applicable rates.

- 2.3 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.4 The goods offered should strictly conform to the specification and technical details mentioned in *annexure-A*.
- 2.5 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.6 The bid is to be accompanied with "Bid Security" for an amount stated in the pt. no. 10 in enquiry.
- 2.7 **<u>Performance Security</u>**: The successful bidder has to furnish "Performance Security" as per Institute norms. Alternatively, fixed percentage of the cost of the stores as stated in the enquiry may be retained by the Institute in its Maintenance Fund towards performance security, which will be released six months after the completion of warranty period.
- 2.8 <u>Penalty for delay in commissioning:</u> The schedule to be given for testing and acceptance and/or delivery and installation at site is to be strictly adhered to in view of the strict time schedule for implementation of various projects of the Institute as time is essence of the contract. Any unjustified and unacceptable delay in delivery beyond the delivery schedule as per Purchase order (which shall not be less than 30days from the date of issue of purchase order) shall render the vendor liable for liquidated damages by way of penalty at the rate of 1.5% (one and one half percent) per week subject to a maximum of TEN weeks and thereafter the Institute holds the option for cancellation of the order of pending supply and procure the same from any other vendor and invoke the Bank Guarantee of the vendor. The Institute may deduct such sum from any moneys in their hands due or to become due to vendor. The payment or deduction of such sums shall not relieve the vendor from his

obligations to complete the process of commissioning or from his other obligations and liabilities under the contract.

- 2.9 Payment (100 percent) will be made by Account Payee Cheque/ Bank Draft, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, where applicable, whichever is later/ latest subject to conditions mentioned in point no. 2.12 under bid document. If the payment is not made by the Institute within this stipulated date, the vendor may claim compensation at rates fixed by the Institute.
- 2.10 If bid is foreign exchange with import price will be calculated based on exchange rate + 10% for custom duty and CIF. Exchange rate on bid opening day will be considered for evaluation of bids.
- 2.11 **Training:** The training will be executed in following order:-Three days training on "Chassis & Blade server Administration with Troubleshooting" will be executed by OEM (not by vendor) at NIT, Rourkela with live demonstration of equipment supplied in first phase of post-delivery period. Training agenda must be attached in technical bid.

#### 2.12 Payment

- a. The payment will be made in two parts. On delivery and after successful completion of training, installation, configuration, testing, implementation with existing infrastructure and proper verification of equipment's, 100% of **part-I** (Supply and Installation of blade server) payment will be made. No part of the contract price shall become due or payable until the vendor has delivered and installed the items and provided service to the complete satisfaction of the Institute. Payment shall be made subject to recoveries, if any. If required, NIT can open LC for procurement of the materials against foreign exchange.
- b. A pre-receipted bill shall be submitted in duplicate in the name of NIT, Rourkela at the location mentioned in the purchase order. It shall be done soon after the delivery and installation of the items along with a copy of the duly received delivery challan and original excise duty gate pass, if any.
- c. In case there is a price reduction in service components during the contract period, then the vendor will pass on all such benefits to NIT, Rourkela without claiming by the Institute.
- d. Packing list must be put in all packets during time of delivery.
- 2.14 **<u>Right to award the contract:</u>** The institute reserves the right to award the contract to any of the bidders irrespective of not being lowest or to change any of the terms taking into consideration of interest of the Institute and in this respect, the decision of the Institute shall be final. The bid document/resultant contract will be interpreted under Indian Laws.

#### 2.15 Effect and validity of offer

- a. The offer shall be kept valid for acceptance for a minimum period of 180 days from the date fixed for opening of tenders.
- b. In the event, the vendor's company or concerned division of the company is taken over/merged into another company, all the obligations under the agreement with the Institute shall be passed on to the new company/ division for compliance by the new company on the negotiations.

- c. If the name of the product is changed for describing substantially the same product in a renamed form, then all techno- financial benefits agreed, with respect to the original product shall be passed on to the Institute and the obligations of the vendor towards the Institute in respect to the product with old name shall be passed on to the product so renamed.
- d. In case the Institute sees that the market rates have come down from the time when rates were finalized in the rate contract/ order or there is a need for selection of new system configuration based on market trends, the Institute, may ask the technically short listed vendors to requote the prices and the vendor shall be selected on the basis of procedure given earlier.
- e. The Institute reserves the right to award the contract to any of the bidders irrespective of not being lowest, taking into consideration of the interest of the Institute and in this respect, the decision of the Institute shall be final.
- 2.16 <u>Acceptance of tender:</u> The tender shall be processed as per standard procedures. The Institute, however, reserves the right to reject any tender without disclosing any reason. The Institute would not be under obligation to give any clarifications to those vendors whose tenders have been rejected, unless otherwise decided or covered under the provision of the Right to Information Act, 2005.
- 2.17 **<u>Right to modify the requirement:</u>** The categories of items and quantity will be as per requirements. NIT, Rourkela reserves the right to increase or decrease the quantity or delete some or all of the items depending on the needs of the Institute without assigning any reasons.
- 2.18 **Arbitration:** In the event of any question, dispute or difference arising under these conditions 'Instructions' or in connection with this contract the same shall be referred to the arbitration of a sole arbitrator, to be appointed by Director, NIT, Rourkela or his nominee. The award of the arbitrator shall be final and binding on the parties to this contract. The arbitration shall be held at the NIT, Rourkela. The proceedings of arbitration shall be held in accordance with the provisions of the Arbitration and Conciliation Act, 1996 or any statutory amendments thereto, and both the parties to this contract shall bear the cost of arbitration equally. If differences persist even after arbitration and there are compelling reasons to go to the court, it will be decided in the court of Rourkela only.
- 2.19 **<u>Right to award the contract</u>**: The Institute reserves the right to award the contract to any of the bidders irrespective of not being lowest or to change any of the terms taking into consideration of interest of the Institute and in this respect, the decision of the Institute shall be final.

Prof. B. Subudhi Head, Computer Centre NIT, Rourkela

Tender document approved

Director, NIT, Rourkela Date: 00<sup>th</sup> May, 2014

# **IMPORTANT SPECIFICATION FOR PURCHASE OF BLADE SERVERS**

Sl.	Items	Descriptions
NO.	Enclosure (Quantity	01)
Diaue	Blade Chassis	- 01)
1.	Blade Chassis	<ul> <li>a. Solution to house the required number of blade servers in smallest number of enclosures. Industry standard suitable for housing in Standard Server Racks. The blade enclosure should offer at least 50% more higher server density per square-foot when compared to the dense 1U Rack servers. Should have support for full height and half height blades in the same enclosure, occupying a max of 10U rack height.</li> <li>b. The server to be maintained in existing 42U rack.</li> <li>c. Same enclosure should support Intel Xeon, AMD Opteron and RISC/ EPIC processors based blades.</li> <li>d. Should support Hot Pluggable &amp; Redundant Management Modules with onboard KVM functionality.</li> <li>e. Should provide a highly reliable and high performance mid-plane/ back-plane design in the blade enclosure. Should provide detailed technical information.</li> <li>f. Should be able to accommodate the blade servers of specifications mentioned in the proposed blade enclosures. The proposals must offer the densest packaging possible for the blade servers in the enclosure and maximum headroom for future expansion in the offered enclosures.</li> <li>g. There should have minimum 5 installations in Eastern India in academic Institutions.</li> <li>h. Support simultaneous remote access for different servers in the enclosure.</li> </ul>
2.	KVM Support	Internal KVM switch should be provided in the chassis
3.	Interconnect	Should support simultaneous housing of Ethernet, FC, SAS, iSCSI and infiniband interconnect fabrics offering Hot Pluggable & Redundancy as a feature
4.	Blade Server	The enclosure should be populated with network switches with
	Interconnect from Chassis to Server Blade	Minimum 10 gigabit uplink ports to the data center switch.
5.	Power Supply Podundant	<ul> <li>a. The enclosure should be populated with power supplies of the capacity available with the vendor. Power supplies should support N+N as well redundancy configuration.</li> <li>b. The power supply provided should be capable of serving fully loaded Chassis.</li> <li>c. Should offer a single phase power subsystem enabled with technologies for lower power consumption and offering high energy efficiency levels. Vendors should provide documents certifying the claims.</li> </ul>
0.	keuunaant backplane/midplane	chassis modules ensuring no single point of failure

Sl.	Items	Descriptions
7.	Cooling	Each blade enclosure should have a cooling subsystem consisting of
	cooning	redundant hot pluggable fans or blowers enabled with technologies for
		improved power consumption and acoustics
8.	System Software	Management/ controlling software's have to be from the same OEM as the
0.	System Soltware	hardware (3 <sup>rd</sup> party software not acceptable)
9.	Remote	a Must provide a remote management functionality to operate the
	Management	server in both in-band and out-of-band. Must be part of the server
		without the need to install any additional hardware or software.
		b. Must have a real time Virtual KVM functionality and be able to
		perform a remote Power sequence. Must provide both Java & Java-
		free browsing options.
		c. Must have the ability to map the remote media to the server and
		ability to transfer files from the user's desktop/laptop folders to the
		remote server with only the network connectivity.
		d. Must have the ability to capture the video sequence of the last failure
		and the boot sequence and also playback the video capture or
		equivalent technology.
		e. Must have the ability for multiple administrators across remote
		locations to collaborate on the remote session in a server with a
C		maximum of 4 sessions even in server powered OFF mode.
Serve	r Blades (Quantity - 1	2)
10.	Processor	Latest generation 64 Bit processor, dual socket, dual processor with 2 x
		Core E3-2040v2 processor (ivy Bridge), based on liner Cool series chipset, offering 20MB shared L3 cache. Server should provide an intelligent socket
		that would ease the installation of CPU to avoid errors caused by mis-
		inserting processors during install or upgrade
11	Memory	All of blades each with total of 256GB DDR3 Fach RDIMM module
11.	Wiemory	should be 1600MHZ Each RDIMM should work at 1600MHz 1, 35V even
		after populating all the DIMMs in the channel.
12.	Memory Protection	Advanced ECC
	C C	Memory Online Spare Mode (Rank Spare Mode)
		Lockstep Mode
13.	Hard disk drive	2 TB Two number of internal Hot swappable SATA HDD (minimum 2
	with carrier	TB) support caution indicator to avoid human errors in replacing failed
		HDD.
14.	Storage Controller	Integrated PCIe 3.0 based SAS Raid Controller with RAID 0, 1 with 512MB
		of Flash backed write cache onboard.
15	CATA M 14	
15.	SAIA Multi-	One SATA Multi-Burner drive in chassis which can be shared by the blades.
16	Durner	Dual Dart 10GhE Converged Network Adenter which supports partitioning
10.	features	up to at least 3* Ethernet and $1* EC/iSCSL HBA ports per 10Gbps port$
	icatures	when using with appropriate Blade interconnect
17.	Interfaces	Minimum of 1 * internal USB 2.0 port and 1 * internal SDHC card slot
18.	Blade Server	Should be capable of supporting a 8Gbps Dual port Fiber Channel HBA
	Connectivity to	internal to the Server Blade.
	SAN	
19.	Bus Slots	Minimum of 2Nos of PCIe 3.0 based mezzanine slots. One PCIe x16 based
		and one PCIe x8 based supporting Ethernet, FC adapters, Infiniband and
		SAS based adaptors
20.	Graphics	Integrated G200

Sl. No.	Items	Descriptions
21.	BIOS	Unified Extensible Firmware Interface (UEFI) or equivalent with integrated
		management module in the blade. Supports 64 bit architecture and can
		address 16TB of memory or more.
22	OS supported	Must be virtualization enabled.
22.	OS supported	Support of following OS: Win Server 2012 B2 (64 bit)
		RedHad Enterprise Linux 6 x (64 bit)
		Suse Enterprise Linux v11
23.	Virtualization	Support of the following virtualization software:
	Supported	RHEV 3
		MS Windows Sever 2012 Hyper-V
		VMware vSphere 5
24.	Industry Standard	ACPI 2.0 Microsoft® Logo cortifications
	Compnance	USB 2.0 Support
		IPMI 2.0
		Secure Digital 2.0
		TPM 1.2 Support
		IEEE (specific IEEE standards depending on Ethernet adapter card(s)
		installed)
		Advanced Encryption Standard (AES)
		SNMP
		SSU20
		DMTF Systems Management Architecture for Server Hardware Command
		Line Protocol (SMASH CLP)
		Active Directory v1.0
		PCIe 3.0
25.	Provisioning	Essential tools, drivers, agents to setup, deploy and maintain the server
		should be embedded inside the server. There should be a built -in Update
26	Remote	a System remote management should support browser based graphical
20.	Management	remote console along with virtual power button, remote boot using
	8	USB/ CD/ DVD Drive. It should be capable of offering upgrade of
		software and patches from a remote client using media/ image/ folder. It
		should support server power capping and historical reporting and
		should have support for multifactor authentication.
		b. Out of band remote management port should be provided and it should have at least 4GB of NAND Flash to download the firmware from the
		website directly or from internal system Server should support
		automated firmware update.
		c. Server should support agentless management using the out-of-band
		remote management port.
		d. The server should support Active Health System which monitors and
		records changes in the server hardware and system configuration. It
		assists in diagnosing problems and delivering rapid resolution when system failures occur
		e Applications to access the server remotely using popular handheld
		devices based on Android or Apple IOS should be available.
		f. Should support remote console sharing upto 6 users simultaneously
		during pre-OS and OS runtime operation, Console Replay that captures

Sl.	Items	Descriptions
No.		
		<ul> <li>and stores and supports replay of the console video during a server's last major fault or boot sequence, Microsoft Terminal Services Integration, 128 bit SSL encryption and Secure Shell Version 2 support.</li> <li>g. Should provide support for AES and 3DES on browser. Should provide remote firmware update functionality. Should provide support for Java free graphical remote console.</li> </ul>
27. Serv	ver	a. The Systems Management software should provide Role-based
Mar	agement	security.
		<ul> <li>b. Should help provide proactive notification of actual or impending component failure alerts on critical components like CPU, Memory and HDD. Should support automatic event handling that allows configuring policies to notify failures via e-mail, pager, or SMS gateway or automatic execution of scripts.</li> <li>c. Should provide an online portal that can be accessible from anywhere. The portal should provide one stop, online access to the product, support information and provide information to track warranties, support contracts and status. The Portal should also provide a personalized dashboard to monitor device heath, hardware events, contract and warranty status. Should provide a visual status of individual devices and device groups. The Portal should be accessible on premise (at customer location - console based) or off premise (using internet).</li> <li>d. Should support scheduled execution of OS commands, batch files, scripts, and command line apps on remote nodes</li> <li>e. Should be able to perform comprehensive system data collection and enable users to quickly produce detailed inventory reports for managed devices. Should support the reports to be saved in HTML, CSV or XML format.</li> <li>f. Should help to proactively identify out-of-date BIOS, drivers, and Server Management agents and enable the remote update of system software/ firmware components.</li> </ul>
		g. The Server Management Software should be of the same brand. as
		of the server supplier.
Feature		
28. Das	hboard	<ul> <li>a. Software should support dashboard view to quickly scan the managed resources to assess the overall health of the data center. It should provide an at-a-glance visual health summary of the resources user is authorized to view.</li> <li>b. The Dashboard minimum should display a health summary of the following: <ul> <li>Server Profiles</li> <li>Server Profiles</li> <li>Server Hardware</li> <li>Enclosures</li> <li>Logical Interconnects</li> <li>Appliance alerts</li> </ul> </li> <li>c. The status of each resource should be indicated by a color: like,</li> </ul>

Sl. No.	Items	Descriptions
29.	Map View	Software should support feature to visualize the relationships between datacenter devices, up to the highest levels of datacenter infrastructure
30.	Activities	Software should provide Activity screen with log of health and status notifications. The software should verify the current activity of resources in the environment, and post alerts to the Activity screen and to the associated resource screens for user to review.
31.	Search	Software should support search for resource-specific information such as specific instances of resource names, serial numbers, WWNs, IP and MAC addresses to help manage infrastructure better
32.	Profile	<ul> <li>a. Software should have capability to create server profile which comprising firmware levels, BIOS settings, network connectivity, boot order configuration, iLO settings, and unique IDs. This will standardize and simplify server provisioning.</li> <li>b. Must support creating groups, which helps to provision hundreds of servers quickly and consistently without requiring that experts take action for every server deployed.</li> </ul>
33.	Firmware management	<ul> <li>a. Software should support firmware management for the managed devices centrally by offering baseline firmware version to keep the systems on supported version of firmware.</li> <li>b. Software should maintain firmware repository to download firmware from website and update on managed nodes when required.</li> </ul>
34.	Remote Management	<ul> <li>a. Software should support embedded hardware Graphical Remote Console capabilities of the servers that can turn a supported browser into a virtual desktop, giving the user full control over the display, keyboard, and mouse of the host server.</li> <li>b. Should support integration with enterprise-class directory services like Microsoft Active Directory and Novell eDirectory to provide secure, scalable, and cost effective user management.</li> <li>c. Should support integration with Microsoft Terminal Services to provide a high-performance graphical remote console by automatically or manually switching to Microsoft Terminal Services when the operating system is fully loaded and available on the host system.</li> <li>d. Must have a real time Virtual KVM functionality and be able to perform a remote Power sequence. Must provide both Java &amp; Javafree browsing options.</li> <li>e. Must be able to connect using popular mobile devices like Apple IOS and Android based devices.</li> <li>f. Must support management of core system components out-of-band without involving SNMP or WBEM on operating system.</li> <li>g. Must have the ability to map the remote media to the server. Also must have the ability to capture the video sequence of the last failure and the boot sequence and also playback the video capture.</li> <li>i. Must have the ability for multiple administrators across remote locations to collaborate on the remote session even in a server lights-out mode (with a maximum of 6 sessions)</li> </ul>

S1.	Items	Descriptions/ Functionality/ Requirement
No.		
35.	Power Management	<ul><li>a. Should allow to view the thermal status of entire data center at a glance. Thermal data should be collected from the managed resources in each data center rack and should be presented graphically, allowing easy identification of hot spots in a particular rack.</li><li>b. Must be able to show the actual power usage and actual thermal</li></ul>
		<ul><li>measurements data of the servers. Must also show a historical trend of power and temperature and generate comprehensive power reports.</li><li>c. Must be able to support power discovery of servers and blades to</li></ul>
		help visualize datacenter thermals.
36.	Performance Management & Alerting	<ul> <li>a. Should be able to collect and maintain CPU utilization information for all of the servers it manages.</li> <li>b. Should also collect port-level statistics for networking, including transmit, receive and error counters.</li> <li>c. Must display all of this data using rich UIs and make the data available through the REST APIs</li> </ul>
37.	Deployment	<ul> <li>a. Must have the capability of deploying Operating Systems on multiple servers simultaneously and also be able to schedule deployment as and when needed.</li> <li>b. Must have the capability to perform scripted installation of Windows, Linux, Hyper-V and ESX Operations Systems to reduce the time required in deployment.</li> <li>c. Must have the capability of capturing and deploying OS images.</li> <li>d. Must have the capability of configuring the hardware and changing system settings such as RAID level before the deployment of the Operating System. Must also have the capability of capturing it across servers.</li> </ul>
38.	Integration with Enterprise Management software	Must have the ability to use a single, consistent resource model embodied in a fast, modern, and scalable HTML5 user interface and industry- standard REST APIs for mobile, secure access and open integration with other management software.
Priva	te Cloud Platform soft	tware
39.		The solution must provide a comprehensive framework to setup a cloud platform that could deliver various cloud services IaaS, PaaS & SaaS. The proposed solution should deliver out of the box IaaS & the same platform should be extensible to deliver PaaS & SaaS capabilities
40.		The Platform should have capability to deliver Infrastructure services from x86, RISC/ EPIC & Virtual Resource pools(multiple hypervisors)
41.		The proposed Cloud platform must support multiple Hypervisors (VMware, Microsoft, RedHat KVM), Heterogeneous compute (HP, IBM, Dell etc.), Heterogeneous Storage (HP, IBM, EMC, NetApp etc.) & Heterogeneous Network (HP, Cisco, Juniper) the Cloud Management software should seamlessly manage & deliver Cloud Services across heterogeneous hypervisor, Compute, Storage & Network
42.		The Solution should be able to abstract Infrastructure elements (compute, network, and storage) from the application templates/images regardless of hypervisor, server, network and storage hardware.

Sl.	Items	Functionality/ Requirement
1NO. 43		Cloud platform must provide Unified Infrastructure management
		capabilities that can manage both physical as well as virtual resources with inventory management; it should allow monitoring of systems, manage health & performance proactively, event management & and automated notifications with email alerts
44.		The Cloud Solution should provide ready to use application templates/ packages with sizing, workflows & configurations which can be deployed quickly e.g: Microsoft SharePoint, Oracle E-Biz Suite, SAP Business objects
45.		The Solution should be able to isolate & allow secure access for cloud services, All cloud services portals – User portal, Administrative portal, Tenant portals & Dashboards shall be operated in a secure manner.
46.		The Solution should provide comprehensive service catalog with capabilities for service design and lifecycle management, a web-based self-service portal for users to order and manage services
47.		The Solution should automate service provisioning & should provide an option to customize the service attributes at service creation time to offer a fixed or customizable services to the user/ subscriber the change to the service should not impact the definition of referenced template
48.		Multi-tenancy: The solution shall provide comprehensive user management functions including tenant-specific user grouping and admin/ user rights within the scope of a tenant. The tenant-admin user is considered distinct from the overall cloud solution administrator. The tenant-admin shall be able to manage own profile, tenant preferences, as well as users within the tenant/ group scope. Individual users shall be able to manage their own profile and individual
49.		The Solution should provide a Dashboard that captures all cloud information on one screen giving snapshot of number of Physical servers, Virtual Machines, Storage Capacity, Memory & IP addresses available & consumed.
50.		Top Cloud services requested & their status, top users/ consumers etc.
51.		Cloud Platform should provide service measurement (Chargeback/ Showback) with the capabilities to assign cost to different compute elements & measure the cost on a monthly/ weekly/ daily/ hourly basis
52.		The proposed solution must support Hybrid Cloud mode as defined by NIST where cloud services could be extended to a 3rd party cloud with open APIs & Workflows, The solution should atleast offer cloud bursting to one public cloud vendor
53.		The proposed solution must support Hybrid Cloud mode where cloud services could be extended into a public or partner cloud without the need of provisioning separate tools
54.		The Solution should be capable of location independent resource pooling where a resource pool could be extended, provisioned & consumed through the same portal
55.		The proposed Cloud platform should support Multi-Datacenter Operation & Scalability; Management Software Should provide single management window to manage multi-datacenter resources
56.		The Solution Should support Open standards & should be interoperable with Open Stack technologies

S1.	Items	Functionality/Requirement
No.		
57.		The solution must provide Role based Access Control by integrating with
		LDAP based identity store.
58.		Cloud Platform Software & Hardware should be provided by single OEM
		with end to end ownership
59.		Proposed Solution should offer lifecycle management of the services by
0,1		defining a lease period which can be changed as per user & process
		requirements
60.		The Cloud Software must provide a mean to design & document various
00.		infrastructure services (e.g. SAP Email Servers File Servers 3-tier
		architecture etc.) Also there must be workflow automation in deploying
		these infrastructure services
61		Proposed Solution should provide an abstraction of infrastructure resources
01.		(Physical servers virtual machines storage single network connection or
		multiple network connection) & visually design infrastructure services
		(e.g. SAP 3 tier web/ app/ DB solution Exchange email solution etc.)
		using these resources Solution should be canable of validating the
		infrastructure design
62		To make the system & process more efficient Service templates should be
02.		repeatable in nature & which could be saved as Infrastructure templates
		and publish them as a service catalog for consistent automated deployment
		and publish them as a service catalog for consistent, automated deproyment and documentation
63		Service Definition should offer an option to specify the minimum &
0.5.		maximum resource limits & service could be extended to maximum
		resource limit & the changes made to the service should reflected in the
		system in real time
64		The solution should offer the capability to define the hybrid delivery for a
0-11		particular service & subsequently users can provision the service in a
		hybrid cloud
65.		Solution must provide for a workflow automation tool that supports:
		Request/Approval/Reject the deployment of templates. Email notification
		of template deployments. Ability to integrate to
		ticketing system & chargeback software
66.		The solution should offer access controlled web based Self-Service portal
		for consumers to order the cloud services that may include Compute.
		Storage, Network, Operating System & Software resources through a
		Service Catalog
67.		The Self-Service Portal must provide the list of available services, the
		number of services been subscribed & their status along with the
		configuration details, cost associated with the service & capability to
		define a lease period for the service
<b>68.</b>		The solution should offer flexibility to users to choose various types of
		services & change the attributes of the subscribed service ( change
		configuration, delete the service, change the lease period etc.)
<b>69.</b>		The solution should offer the capability to increase the CPU, Memory &
		also augment storage on demand by adding disks from different tiers (FC/
		iSCSI/ NFS) to an instantiated service as per the workload demand &
		accordingly the total cost to the services should change in the show back/
		chargeback system
70.		The solution should allow the users to schedule a service creation
71.		Request in a future date/ time; the solution should check if a request
		scheduled for a future time can be fulfilled and reject the request in

Sl. No.	Items	Functionality/Requirement
		case of projected resources shortage or accept the request and reserve the resources for that request
72.		The Service consumer (self-service user) should have same process & user
		experience irrespective of the source of the service (Private or Public Cloud)
73.		The management software must collect utilization data at a rate of at least
		5-minute intervals. It must be able to provide workload placement advice
74		based on analysis of actual performance data.
74.		Memory, Disk, I/O & Power. The management software must show these 5 utilization data types and provide trending analysis based on Daily/Weekly/Monthly/Quarterly/Half/Yearly Intervals.
75.		The management software must have the ability to continuously provide on-going capacity analysis for server consolidation planning purposes, based on the collected utilization data.
76.		The Solution should offer to generate a capacity planning report at any
77.		The solution should provide a simulation & what-if scenarios canability to
		forecast future infrastructure requirements & consolidation of existing
		workloads based on trend analysis
78.		Solution should provide analytics tools that can analyze the traces &
		to scientifically analyze the utilization traces & flags potential problems
		based on the queries, e.g. It should show at least top 5 virtual machines
		which are low on memory/CPU utilization, top 5 virtual machines with
0		highest memory/CPU utilization
Gene	ral Requirements	Equipped with predictive failure englysis to detect component failure
13.	rault 101erant	(processors, memory, disk drives) before the failure occurs to maximize availability.
80.	Enhanced	Pre-failure alerts Predictive failure analysis on processors, memory, HDD.
	predictive Failure	
01	Analysis Duanan Diagnagia	Drener discussific method to identify failing components inside the system
01.	methods	without interrupting system operation
		Proper analysis method to detect components or hard drives operating
		outside of set thresholds.
		Light path diagnostics or equivalent (should work even in the event of
		the system on items like CPU memory Power supplies etc
82.	Field Proven with	Offered Blade chassis should have been in operation for more than 1 year
	Installed base	worldwide.
83.	Same OEM for all	Products should be from same manufacturer in order to ensure proper
	Products	functioning, compatibility, support and seamless integration.
84.	Warranty	5 years comprehensive warranty inclusive of parts and labor. Bidder must
07		attend to service request within 12 hours from placing of complain.
85.	Delivery Schedule	0 weeks maximum
00.	IAXES	Companies can quote for FE purchase through I C opening/High sea sales
		NIT is eligible for custom duty exemption.

S1.	Items	Descriptions
No.		
		For evaluation of bid with FE quote, price of custom duty @5% will be
		added cost of freight and insurance will also be added to the bid value.
		Exchange rate on the date of financial bid opening will be considered.
87.	Installation &	These blades must be interoperable with existing storage infrastructure
	Configuration	consisting of HP EVA P6500 and SAN Switches (two numbers).
	_	They must be Installed and configured by authorized engineer from the
		manufacturer (not from the vendor).
88.	Training	At least three days training on "Chassis & Blade server Administration with
		Troubleshooting" at NIT, Rourkela will be provided by OEM before Server
		Installation ii) Configuration, iii) Testing, iv) Implementation with existing
		infrastructure and v) Verification.
		Training agenda details must be attached in technical bid.

Note: Any specification terms found to be vendor specific, may be quoted with equivalent technical specification.

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