CENTRAL COALFIELDS LIMITED
*A Miniratna Category I Company*
(A Subsidiary of Coal India Limited)
**MATERIALS MANAGEMENT DEPARTMENT**
DARBHANGA HOUSE: RANCHI 834 001 (JHARKHAND) INDIA
(PBX) 2360726, 2360687 CGM (MM) - 2360716
FAX (91) 0651-2360257 EMAIL: HODMM@CCL.GOV.IN

**SUPPLY ORDER**  
No . 155 01 11 14- 371  
To,

**BY REGD. POST**  
Dated : 28.03.2014

M/s Orange Business Services India Technology Services Pvt. Ltd,  
15th Floor, Vishwaroop IT park, Sector 30-A, Vashi,     E-mail- aftab.alam@orange.com  
Navi Mumbai, India – 40070

Sub:- **Formal order Supply, installation, commissioning and maintenance of RISC/EPIC Servers along with allied accessories on rental basis for 5 years**  
Ref:- 01) Our tender no.- CM(MM)(P-III)/13-14/SERVER/155  Opened on 20.06.13  
      02) Your offer no.- Orange'/CCL'/DC'/2013-14'/10 dated 14th June 2013  
      03) Our different letters last one being Dt.19.11.13  
      04) Your different letters last one being Dt.11.03.14

Dear Sirs,  
We are pleased to notify our acceptance of your above referred offer for placement  of formal order Supply, installation, commissioning and maintenance of RISC/EPIC Servers along with allied accessories on rental basis for 5 years with  following  terms &  conditions:-

1.      **Scope of Supply:**

| Sl. No. | | Description | Unit | Qty | Unit rate total(MR+OTC) without Tax | Unit rate total(MR+OTC) with Tax | Extended value with Tax |
|---------|---|-------------|------|-----|------------------------------------|----------------------------------|-------------------------|
| 1 | A | Database and Application Servers for HCC | Nos | 2.00 | 2,506,134.34 | 2,624,423.88 | 5,248,847.76 |
| 2 | A | Common console for server management for all servers in the data centre for HCC : Bidder to propose either KVM based console ( KVM switch + Flat Panel TFT Monitor for all RISC and existing Xeon servers (5 Nos.) | Nos | 1.00 | 415,491.94 | 435,103.16 | 435,103.16 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | A | Database and Application Servers with External Backup Drive for RCCs ( MRS, JDH & NK ) / ACCs (Argada, Kuju, Rajrappa, Hazaribag, Dhori, and B&K Areas) and Backup at CCL Sales Office Kolkata. | Nos | 10.00 | 1,538,876.43 | 1,611,511.40 | 16,115,113.97 |
| 4 | A | Common SAN Storage System ( Connected to Database , Application Servers and 5 nos of Linux/Windows server. Provision should be made for connectivity for additional servers with the SAN switches) | Nos | 2.00 | 5,185,853.81 | 5,430,626.11 | 10,861,252.22 |
| | B | Backup Software for HCC | | 1.00 | 2,892,119.59 | 3,028,627.63 | 3,028,627.63 |
| | C | External Tape Library for HCC | Nos | 1.00 | 1,039,212.73 | 1,088,263.57 | 1,088,263.57 |
| 5 | A | SAN Switch for HCC | Nos | 2.00 | 897,562.90 | 939,927.87 | 1,879,855.74 |
| 6 | A | P.C. Client / Node for 3 RCCs (12 each) / 6 ACCs (8 each) and 1 for Barkasayal | Nos | 85.00 | 70,835.31 | 74,178.74 | 6,305,192.61 |
| 7 | A | 1500 Line Matrix Printer-Quietized Cabinet Model for HCC (2 Nos.) & 3 RCCs (1 each) | Nos | 5.00 | 387,733.49 | 406,034.51 | 2,030,172.55 |
| | B | 1000 Line Matrix Printer-Pedestal Model for HCC (1 No. for Road Sale Centre), RCC (1 No. for Barkasayal) & 6 ACCs (1 each) | Nos | 8.00 | 574,136.65 | 601,235.90 | 4,809,887.20 |
| | C | Laser Printer or Latest of equivalent / higher Specs (2 each for RCC/ACC) | Nos | 18.00 | 52,304.49 | 54,773.26 | 985,918.71 |
| 8 | A | On line UPS 5 KVA with 4 hrs backup | Nos | 10.00 | 623,536.82 | 652,967.76 | 6,529,677.58 |
| | B | 1 KVA off line /Line Interactive UPS | Nos | 85.00 | 19,572.85 | 20,496.69 | 1,742,218.52 |
| 9 | A | Switch with allied accessories for client integration | Nos | 10.00 | 59,475.14 | 62,282.37 | 622,823.67 |

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| 10 | A | 42 U server racks to be supplied with all accessories for mounting servers, LTO Library, SAN Storage, SAN Switch and KVM based console at HCC | Nos | 1.00 | 98,748.72 | 103,409.66 | 103,409.66 |
|---|---|---|---|---|---|---|---|
| | B | 24 U server racks to be supplied with all accessories at RCCs & ACCs | Nos | 10.00 | 49,349.16 | 51,678.44 | 516,784.40 |
| | | | | Total | | | 62,303,148.97 |

(Total Contractual value will be Rs. Six Crores, Twenty Three Lacs, Three Thousand, One Hundred Forty Eight and Paise Ninety seven only.)

**The break up of product cost & service cost of OTC & MR Charges is mentioned in Annexure-A**

**Other terms & conditions are as follows;**

1. **Price** : Firm & FOR Destination Basis.

2. **P&F and F&I Charges** : NIL.

3. **Excise Duty** : Not Applicable.

4. **CST & Service Tax** : CST@2% on product cost and Service Tax@12.36% on Service Charges will be payable on the break up of product cost & service charges as mentioned in Annexure-A.

5. **Delivery, Installation, Commissioning & Integration:**

   (i)The supply, installation, commissioning and Integration of entire Turnkey Project must be completed within eight weeks from the date of placement of work/supply/purchase order.

   (ii)Penalty: If execution of the project (supply, installation ,commissioning& integration ) is delayed, LD will be imposed as indicated under LD clause. LD will be calculated as per clause (13).

   (iii)Deliverables: One copy of all User manuals (hard & [OR] soft copy) will be supplied for all software along with any other technical literatures/leaflets for all items. Step by step Configuration procedure of Risc/Epic Servers, SAN storage, SAN Switch, LTO Tape Library & Line printer etc. is to be submitted.

6. **Consignee Particulars**

| For CCL (HQ) | For NK &Piparwar Area group (Group B): |
|---|---|
| The GM (Systems), | CMM (Stores), |
| Central Coalfields Ltd, | NK Regional Store, |
| Darbhanga House, | Dakra |
| Ranchi-834 001 | |
| | |
| For Argada, Barkasayal, CRS/CS, Rajrappa, Kuju & Hazaribagh Area group (Group D): | For Dhori, Kathara and B & K Area group (Group C): |
| CMM (Stores), | CMM (Stores), |
| Barkakana Central Store, | Kathara Regional Store, |
| Barkakana | Jarangdih |
| | |
| For Backup Server & SAN Storage | |
| Computer Incharge | |
| CCL Sales Office, | |

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| 15,Park Street, Apeejay HouseKolkata. | |
|---|---|

## 7. General Terms and Conditions

7.1 The Turnkey Project for Supply, installation, commissioning and maintenance of RISC/EPIC Servers along with allied accessories in CCL has been divided into 4 groups as follows:-

        Group    A:    HCC [Headquarter Computer Centre] (CCL HQ)

        Group    B:    NK [North Karanpura] RCC [Regional Computer Centre] (Dakra)

        Group    C:    JDH [Jarangdih] RCC (Jarangdih), ACCs [Area Computer Center] (Dhori, B&K)

        Group    D:    MRS [Mine Rescue Station] RCC (Naisarai) ACCs (Argada, Hazaribagh, kuju&Rajrappa)

7.2 Posting of one engineer at CCL (HQ) Ranchi for Group A, one engineer at Dakra for Group B, one engineer at Jarangdih for Group C and one engineer at MRS Naisarai for Group D of Turnkey Project for Supply, installation, commissioning and maintenance of RISC/EPIC Servers along with allied accessories in CCL.(i.e. four engineers) would be **mandatory** on all working days to look after preventive and corrective maintenance exclusively for CCL. The qualification & experience requirement for engineer to be posted at above said places should be as follows:

- Degree/Diploma in engineering or equivalent.
- Experience certificate of handling such projects at least for one year
- He should be able to sort out both hardware & software related problems / breakdowns of the Project.

7.3 No Rewording of any part / clause of the NIT will be allowed. It would be accepted as it is.

7.4 *The essence of the* **Turnkey Project for Supply, installation,** commissioning and maintenance of RISC/EPIC Servers along with allied accessories in CCL *is the successful implementation of the said project in time and the project implementer should give utmost importance to this aspect throughout the project life cycle.*

7.5 Dependency on availability criteria for any item / part / clause of NIT would not be entertained.

7.6 You will be called "Project Implementer".

7.7 Project Implementer's responsibility for maintenance shall be for the entire Turnkey Project (including each & every item).

## 8   JURISDICTION:

      The Court at Ranchi in Jharkhand State only will have the jurisdiction to deal with and

      decide any legal matter or dispute whatsoever arising out of our contract.

## 7.  **PAYING AUTHORITY:**GM (FINANCE) , CCL, DARBHANGA HOUSE , RANCHI

## 8. Payment Terms:-

a. 80% of one time charge (OTC) will be made within 21 days from the date of submission of clear and acceptable bills /invoices (in triplicate) after delivery of all items of each group [details of group given] of Turnkey Project for Supply, installation, commissioning and maintenance of RISC/EPIC Servers along with allied accessories in CCL .

b. The challan (in triplicate) of items [as stated in (a) above] for each group should be duly signed by the designated computer centre In charge of HCC/RCCs/ACCs of each group.

c. Balance 20% payment for one time charge (OTC) will be made within 21 days from the date of submission of clear & acceptable bills/invoices (in triplicate) after successful commissioning of the project as stated in first (i) clause **of Delivery, Installation, Commissioning & Integration** duly certified by the computer centre In charge of HCC/RCCs/ACCs of each group [details of group given] and further certified by the Chief Project Coordinators located at CCL HQ.

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d. The monthly rental (MR) of the said Turnkey project as whole can only be started after final commissioning of entire turnkey project and Bank Guarantee submission as per CCL terms and conditions.

e. The monthly rental bill in triplicate shall be raised after the end of each month and the same shall be paid within 21 days of receipt and acceptance thereof. The said payment will be made on the basis of Performance Certificate (in duplicate) duly certified by the designated computer centre In charge **of HCC/RCCs/ACCs** of each group [details of group given] and further certified by the designated Chief Project Coordinators located at CCL HQ.

f. One time charge (OTC) should not be more than 3 months rental charge and this limit is applicable only for items covered under both OTC and MR (Monthly Rental). This limit of 3 months rental charge is not applicable to the Project as a whole.

g. **Price Fall Clause:** Till the completion of delivery, if the suppliers supply the items of identical description as that of CCL to any customer, the OTC and rental charges in such occasion(s) should not be lower than those of the items supplied/to be supplied to CCL.

h. If at any time, till the completion of delivery, there is reduction in price/rental charges due to any reason whatsoever, the benefit (of such reduction) is to be passed on to CCL.

i. After the expiry of rental period, project implementer will be entitled to take back all the items except those items covered solely under OTC (one time charge).

j. After the expiry of rental period, CCL would have the option to extend the contract on mutually agreed terms & conditions. For such extension(s) intimation would be given by CCL 3 months in advance.

k. After the expiry of rental period, CCL will have option to take the ownership of all components of Turnkey Project by paying one-month monthly rental charge.

l. Future requirement within contract period, if any, will be charged as per the item rate defined in the Work Order and would be applicable for the entire contract period i.e. 5 year.

9. **INSPECTION, TESTING & COMMISSIONING**

   (i) Inspection will be carried out by the designated computer centre In charge of **HCC/RCCs/ACCs** of each group and final clearance would be given by the Chief Project coordinators located at CCL HQ.

   (ii) The Servers, Clients, Switches etc. are to be installed in consultation with the designated computer centre In charge of **HCC/RCCs/ACCs** of each group. In the case of any difference of opinion/ambiguity, the final opinion/decision of the Chief Project Coordinator, CCL HQ shall prevail.

   (iii) All the clients will be connected to Servers and the same will be tested in the presence of the designated Chief Project Coordinator / computer centre In charge of **HCC/RCCs/ACCs** of each group by logging into the server & connecting from Server to the client (user) and vice versa.

   (iv) The Turnkey Project for Supply, installation, commissioning and maintenance of RISC/EPIC Servers along with allied accessories in CCL will be deemed to be commissioned after testing/executing the system software/programs satisfactorily and login to new servers/clients and also integration of these new servers with existing servers for one week.

10. **PERFORMANCE BANK GUARANTEE (PBG)** :

    10% of the contract amount i.e. **Rs. 62,35,000.00 ( Rs. Sixty Two Lacs Thirty Five Thousand, only)** should be submitted within 15 days of installation & commissioning of entire project by the successful bidder in any of the form given below:

    - a bank guarantee in the form given in the bid document as per format at Annexure – P.
    - Demand Draft drawn in favour of Central Coalfields Limited on any scheduled bank payable at its branch at Ranchi. The performance security deposited in the form of Bank

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Guarantee shall be duly discharged and returned to the contractor on successful completion/conclusion of the contract. The performance security deposit in the form of Demand Draft will be refunded at the time of completion / termination of the contract. If the performance security is provided by the successful bidder in the form of Bank Guarantee, same shall be issued by any Nationalised Bank. The said Performance guarantee shall be valid for entire project life cycle i.e. tenure of five years & three months which will be valid till the conclusion of the contract.

The Performance Bank Guarantee shall be released after expiry of validity period if no claim is pending.

## 11. Maintenance & Regulation of Rentals

a. Project Implementer assures a minimum availability (Uptime) of 99% for each HCC/RCCs/ACCs of the said Turnkey project. The uptime/downtime will be estimated separately for each HCC/RCCs/ACCs.

b. Turnkey Project downtime will be reckoned round the clock (24 X 7). Maximum Grace Period to attend the call will be 4 hours. For e.g. if the down time starts at 12.00 hours on a day and extends up to 11.00 hours the following working day, the downtime would be calculated as below:

First day: from 12.00 hrs to 12.00 hrs (i.e. 12.00 hrs).

Second day: from 12.00 hrs to 11.00 hrs (i.e. 11.00 hrs).

Total downtime: (23 – 4) hours = 19 hrs

c. Turnkey Project Availability in % =

$$\frac{(\text{No of working days in the month} \times 24) - (\text{Downtime hours during the month})}{(\text{No of working days in the month} \times 24)} \times 100$$

Note: 1. Availability shall be calculated on monthly basis.
2. Preventive maintenance is to be carried out on mutually agreed time.
3. No of working days in the month will be calculated as per the no. of working days in a calendar month.
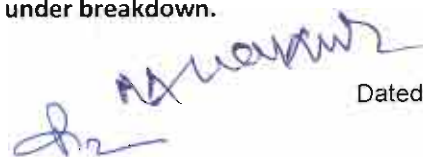
d. In case availability of Turnkey Project for falls below 99%, the monthly rental charges payable by CCL will be reduced by ONE percent for each One percent reduction in availability, e.g. 4% reduction for 95% availability. However, no monthly rental will be payable for availability below 80%.

If the availability goes below 80% continuously for 3 months, an amount equal to monthly rental charge will be deducted as penalty in 4$^{th}$ month from Project Implementer's Performance Security.

If the availability still goes below 80% in 4$^{th}$, 5$^{th}$& 6$^{th}$ month, the deduction of an amount equal to monthly rental charge from Project Implementer's Performance Security as penalty will continue till 6$^{th}$ month.

Again if the availability further goes below 80% in 7thmonth, CCL is free to forfeit remaining Project Implementer's Performance Security and the rental contract will be terminated.

e. **Uptime will be for the entire components of Turnkey Project for each HCC/RCCs/ACCs i.e. in case, any of the components of each HCC/RCCs/ACCs is out of order then the affected HCC/RCCs/ACCs will be considered to be under breakdown.**

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f. No bonus or additional sums shall be payable if the availability is more than 99%.

g. It shall be the responsibility of the Project Implementer to make necessary adjustments and / or repairs to keep the systems as per specification in good working condition.

h. If the machine down time is anticipated to continue over to the next 5 working days, the defective System / Components shall be replaced by a suitable System / Components of the same or higher configuration.

i. CCL shall be responsible for ensuring proper use of the system, its management and supervision by qualified trained personnel.

j. The monthly rental quoted should be firm without escalation during the entire project life cycle, which is in no case less than 5 years. During the rental period, adjustments towards change in statutory taxes and duties like Service tax etc may be made by CCL subject to production of documentary evidence regarding such changes.

k. Any equipment found broken, defective, mal-functioning; under-functioning will have to be repaired/replaced by the Project Implementer at no extra cost to CCL during the entire project life cycle.

l. It shall be the responsibility of the project implementer to make necessary adjustments and/or repairs/maintenance to keep the Turnkey Project for Supply, installation, commissioning and maintenance of RISC/EPIC Servers along with allied accessories on rental basis in CCL as per specification / requirement in proper and satisfactory working condition.

m. The Project Implementer & CCL will decide the periodicity of maintenance and it should not be less than once in a month.

n. The Project Implementer should assure that all breakdown calls be attended at the earliest but not more than 12 hours and will endeavor to keep all the components of Turnkey Project for Supply, installation ,commissioning and maintenance of RISC/EPIC Servers along with allied accessories on rental basis in CCL in fully operational condition.

o. By components of the Turnkey Project means all the items listed In Technical Specification Parameter.

p. Project Implementer's responsibility for maintenance shall be the maintenance / replacement of each and every spares / components including Battery in case of UPS, for entire rental period (i.e. 5 years or 60 months).

**12)SECURITY DEPOSIT :- You will** have to furnish the security deposit amount in the form of Demand Draft or Bank Guarantee of any scheduled bank for 10% ( ten percent ) value of the awarded contract ( landed value ) i.e for **Rs. 62,35,000.00 ( Rs. Sixty Two Lacs Thirty Five Thousand, only)** without having any ceiling within 15 days time from the date of supply order. Security deposit money will be refunded to the firm within 30 days from the date of satisfactory execution of the contract. For unsatisfactory performance and / or contractual failure, the security money shall be forfeited.

13) **Liquidated Damages** :
@ 0.5% of the entire project cost per week or part thereof as stated in first (i) clause **of Delivery, Installation, Commissioning & Integration** subject to a maximum limit of 10% of the entire project cost.

14. **FORCE MAJEURE CLAUSE :**
Project Implementer shall not be liable for damages for failure to perform maintenance obligations if the failure results from Force majeure situations like natural calamities viz Floods, Earthquakes & General Strikes, Riots, Civil Commotions and also refusal of Government/Statutary bodies to grant permission necessary to carry out any portion of the work. CCL will bear the actual compensation to the extent of repair / maintenance / replacement only.
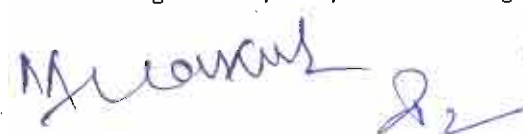
15.**Price Certificate:**

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Please certify on the body of each and every bill that the prices charged are same as applicable to all other Govt. Deptt./Undertakings including DGS&D.

## 16. Technical Terms

a. It is proposed to have 2 Risc/Epic Servers of higher configuration with SAN storage & allied accessories at HCC (Headquarter Computer Centre) and 1 Risc/Epic Server with SAN storage & allied accessories as Backup server at CCL Kolkata Sales Office.

b. It is also proposed to have 1 Risc/Epic Server with allied accessories each at 3 RCCs (Regional Computer Centers – NK RCC(Dakra) for NK &Piparwar, JDH RCC (Jarangdih) for Kathara and MRS RCC(Naisarai) for Barkasayal& CRS/CS) and 6 ACCs (Area Computer Centers for Argada, Hazaribagh, Kuju, Rajrappa, Dhori and B & K). These RCCs/ ACCs Servers will also be used for the development of local application programs as when required.

c. ALL the users across CCL will hook to HCC server first and in case of failure hook to their respective RCC/ACC Servers.

d. So it is designed one way as WAN dependent and another way as WAN independent architecture.

e. Finalization of the configuration of the Servers has been done using the technology compatible with the upcoming WAN Systems to be installed / commissioned across CCL.

f. The detailed specifications with of server hardware are listed Technical Specification Parameter.

g. Each Component / allied accessories of the Systems must be compatible with each other. There shall not be any compromise on the specification.

h. Supporting technical brochures / literatures / catalogues indicating each feature in respect of offered model and make must be submitted along with the offer. The technical brochures / literatures / catalogues submitted by the supplier should satisfy the technical criteria for which the supplier has indicated his compliance in response to the bid. If in any case submitted technical brochures / literatures / catalogues do not satisfy all the technicalities specifically, a confirmation from OEM on its letter head is **MUST**. In absence of which the offer is liable to be rejected / ignored.

i. Clear -cut mention of Make, Model and Technical Compliance of each and every item / detailed features of technical specifications as furnished at Technical Specification Parameter (Technical Specifications/Details) is **MUST**.
   - Documents / brochures in support of make and model offered are must / mandatory.
   - Documents / brochures in support of Technical Compliance of each and every feature of NIT are must / mandatory (supporting portion of Technical Compliance in the documents / brochures must be highlighted).
   - Without the above said proofs it is supposed to be technically unsuitable.

j. If in any case latest or higher model of asked items is quoted, comparative technical as well as commercial documentary proof for both is must / mandatory. Supporting portion of Technical Compliance in the documents / brochures must be highlighted.

k. The vendor shall also take the responsibility of Data Migration and Application Porting from existing servers to New Servers. Although LD Clause is not applicable for this work.

l. CCL reserves the right of asking none or any further technical clarification from the bidders / tenderers.

m. **Transportation of goods** from Consignee's office to individual ACCs/RCCs/HCC locations is the responsibility of Project Implementer and he will have to bear the cost involved. However the computer centre In charge of **HCC/RCCs/ACCs** of each group will coordinate

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for smooth execution/installation/Implementation/Integration of the turnkey project of their areas.

n. **Mode of Dispatch:** The materials should be dispatched through a bonafide Road Transporter. Necessary Road permit will be issued if required, from this office for immediate dispatch of materials on your request. You should apply to this office well in advance for this .,if required

o. **Packing and Forwarding** : Please note that the materials should be dispatched properly packed and protected so that these are received in good condition being free from loss, injury or damage on arrival at destination.

The tenderer should obtain a clear receipt from the transport authorities specifying the complete list of goods dispatched. You should not book any consignment on a "SAID TO BE CONTENT" basis. If you do so, it would be your responsibility.

p. **Insurance:** The dispatch of materials should be covered under insurance at the cost and risk of tenderer itself.

q. Other active/passive hardwares not mentioned but required will be considered under scope of supply.

r. The equipments/components being quoted should be brand new. No refurbished/old equipments shall be used for quoting.

## 17.Training

### You will provide the following trainings
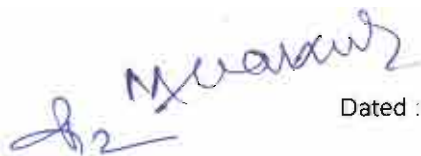
a. The tenderer shall arrange for training to CCL's personnel at CCL's premises. The training shall be for 4 working days and include training materials sufficient for 10 participants each in each and every HCC/RCCs/ACCs of each group.The training shall cover all aspects of proposed Risc/Epic servers, operating system,SAN Storage, and Backup server. The details shall be discussed mutually and agreed upon.

b. Training on Advance Server management with Risc/Epic servers,SAN storage,operating system,Backup server & LTO Tape Driver shall be arranged by the tenderer at Tenderer's premises/tenderer's designated place or at the respective OEM designated place (In India or in abroad) for 4-personnel of CCL for 5 working days incase at the tenderer premises/tenderer's designated place or 2 days at each of the OEM designated place. All the travel, lodging & boarding expenses for the training at Tenderer's premises/tenderer's designated place or at the respective OEM designated place (In India or in abroad) will be borne by the tenderer/ OEM.

c. The tenderer should offer the cost of the training accordingly in their offer.

## 18.Duration of Contract

a. The contract shall come into force from the date of commissioning and shall remain in force upto 60 months.

b. Rental quoted should be firm without escalation.

c. On expiry of the aforesaid period as per clause a, the contract terminates unless it is renewed upon by the customer's request in writing for such further period and on such terms and conditions as are mutually agreed upon. A prior written notice of 3 months shall be given by the customer of his intension to renew the contract.

## 19.Tax Clause

1. Tax Deduction at source (TDS): Income tax TDS shall be applicable under relevant provisions of Income Tax Act 1961 on payment of One Time Charge (OTC) as well as Monthly rent.

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2. The Bill /Invoice raised for One Time Charge (OTC) as well as Monthly rent payable should contain all the information as required under Rule 4A of Service Tax Rule 1994. The invoice must be serially numbered and must contain the following information:-
    - The name, address and the registration number of service provider.
    - The name and address of the person receiving the taxable service (i.e. CCL)
    - Description, classification and value of taxable service provided or to be provided.
    - The service tax payable thereon.

**20.Limitation Of Liability**

a.  Notwithstanding anything to the Contrary in the Agreement or any other document, the aggregate liability of the vendor for any damage shall be limited to the Contract Price

b.  In no event, neither party shall be liable to the other party for any indirect, special, punitive, consequential or incidental damages including without limitation, loss of revenue, profits, business, goodwill, anticipated savings or data or third party claims.

c.  NO Director or official or employee of Owner or Vendor shall in any way be personally bound or liable for the acts or obligations of the Owner or Vendor under the Agreement or answerable for any default or omission in the observance or performance of the acts, matters or things which are herein contained.

d.  The Vendor shall not be entitled to any increase on the scheduled rates or any other rights or claims whatsoever by reason of any representation, explanation, statement or alleged understanding, promise or guarantees given or to have been given to him by any person.

21.  **Order Acceptance:**
Two copies of the order are being enclosed. One copy of the order may please be returned duly stamped and signed within 07 days from the date of supply order as a token of acknowledgement and acceptance of the contract

All terms & conditions are as per NIT since the same has been accepted by the firm and as per Annexure 'V' enclosed.
**Enclosure: (i ) Annexure-A : Detail Price Break Up**
**(ii) Annexure-B- Detailed Technical Specification .**
**(ii) Performance Bank Guarantee FORMAT.**
**(iii) Terms & conditions - Annexure 'V'.**

**Yours faithfully,**
**for & on behalf of CENTRAL COALFIELDS LIMITED**

**(R.K.Pandey)**  
**Sr.MANAGER (PUR.)**

**(A.K.Thakur)**  
**General Manager (Pur)**

**Copy forwarded to :-**
1. The General Manager (System), CCL.
2. The General Manager (S&IC),CCL.
3. The GM(Fin.), CCL, HQ, Ranchi.
4. The Dy. General Manager (MM), Central Stores, Barkakana ,
5. MIS Cell .
6. The ES to GM (MM), CCL, Ranchi.
7. Indent Registration No. 155 dtd. 20/12/2012.

This is issued with the approval of competent authority and fund certified for Rs. 62,25,000.00 Lakhs vide No.CF/CCL/989/13-14, Budget Head Computer Charges dated 24/03/2014.

**(R.K.Pandey)**  
**Sr.MANAGER (PUR.)**

**(A.K.Thakur)**  
**General Manager (Pur)**

No . 155 01 11 14- 371

Dated : 28.03.2014

Price Break Up

## Supply Order No.155 01 11 14- 371 Dt.28.03.2014

| Sl.No. | | Description | Unit (UoM) | Qty | Unit OTC | Unit MR (Inclusive) | Unit Total | Total | Tax % | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | a | b | d | f=b+d*60 | j=f*a | | m |
| 1 | A | Database and Application Servers for HCC | Nos | 2.00 | 119,339.74 | 39,779.91 | 2,506,134.34 | 5,012,268.68 | 4.72 | 5,248,847.76 |
| | | Product cost for Item 1.A | | 2.00 | 88,007.30 | 29,335.77 | 1,848,153.50 | 3,696,307.00 | 2.00 | 3,870,772.69 |
| | | Services cost for item 1.A | | 2.00 | 31,332.44 | 10,444.14 | 657,980.84 | 1,315,961.68 | 12.36 | 1,378,075.07 |
| | | | | | | | 2,506,134.34 | Total of Product 1.A & Services 1.A with taxes: | | 5,248,847.76 |
| 2 | A | Common console for server management for all servers in the data centre for HCC : Bidder to propose either KVM based console ( KVM switch + Flat Panel TFT Monitor for all RISC and existing Xeon servers (5 Nos.) | Nos | 1.00 | 19,785.34 | 6,595.11 | 415,491.94 | 415,491.94 | 4.72 | 435,103.16 |
| | | Product cost for Item 2.A | | 1.00 | 14,590.70 | 4,863.58 | 306,405.50 | 306,405.50 | 2.00 | 320,867.84 |
| | | Services cost for item 2.A | | 1.00 | 5,194.64 | 1,731.53 | 109,086.44 | 109,086.44 | 12.36 | 114,235.32 |
| | | | | | | | 415,491.94 | Total of Product 2.A & Services 2.A with taxes | | 435,103.16 |
| 3 | A | Database and Application Servers with External Backup Drive for RCCs ( MRS, JDH & NK ) / ACCs (Argada, Kuju, Rajrappa, Hazaribag, Dhori, and B&K Areas) and Backup at CCL Sales Office Kolkata. | Nos | 10.00 | 73,279.83 | 24,426.61 | 1,538,876.43 | 15,388,764.30 | 4.72 | 16,115,113.97 |
| | | Product cost for Item 3.A | | 10.00 | 54,040.34 | 18,013.45 | 1,134,847.34 | 11,348,473.40 | 2.00 | 11,884,121.34 |
| | | Services cost for item 3.A | | 10.00 | 19,239.49 | 6,413.16 | 404,029.09 | 4,040,290.90 | 12.36 | 4,230,992.63 |
| | | | | | | | 1,538,876.43 | Total of Product 3.A & Services 3.A with taxes | | 16,115,113.97 |
| 4 | A | Common SAN Storage System ( Connected to Database , Application Servers and 5 nos of Linux/Windows server. Provision should be made for connectivity for additional servers with the SAN swicthes) | Nos | 2.00 | 246,945.41 | 82,315.14 | 5,185,853.81 | 10,371,707.62 | 4.72 | 10,861,252.22 |
| | | Product cost for Item 4.A | | 2.00 | 182,110.32 | 60,703.44 | 3,824,316.72 | 7,648,633.44 | 2.00 | 8,009,648.94 |
| | | Services cost for item 4.A | | 2.00 | 64,835.09 | 21,611.70 | 1,361,537.09 | 2,723,074.18 | 12.36 | 2,851,603.28 |

| # | | Description | | Qty | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 5,185,853.81 | Total of Product 4.A & Services 4.A with taxes | | 10,861,252.22 |
| | B | Backup Software for HCC | | 1.00 | 137,719.99 | 45,906.66 | 2,892,119.59 | 2,892,119.59 | 4.72 | 3,028,627.63 |
| | | Product cost for Item 4.B | | 1.00 | 101,561.84 | 33,853.95 | 2,132,798.84 | 2,132,798.84 | 2.00 | 2,233,466.95 |
| | | Services cost for item 4.B | | 1.00 | 36,158.15 | 12,052.71 | 759,320.75 | 759,320.75 | 12.36 | 795,160.69 |
| | | | | | | | 2,892,119.59 | Total of Product 4.B & Services 4.B with taxes | | 3,028,627.63 |
| | C | External Tape Library for HCC | Nos | 1.00 | 49,486.33 | 16,495.44 | 1,039,212.73 | 1,039,212.73 | 4.72 | 1,088,263.57 |
| | | Product cost for Item 4.C | | 1.00 | 36,493.78 | 12,164.59 | 766,369.18 | 766,369.18 | 2.00 | 802,541.81 |
| | | Services cost for item 4.C | | 1.00 | 12,992.55 | 4,330.85 | 272,843.55 | 272,843.55 | 12.36 | 285,721.77 |
| | | | | | | | 1,039,212.73 | Total of Product 4.C & Services 4.C with taxes | | 1,088,263.57 |
| 5 | A | SAN Switch for HCC | Nos | 2.00 | 42,741.10 | 14,247.03 | 897,562.90 | 1,795,125.80 | 4.72 | 1,879,855.74 |
| | | Product cost for Item 5.A | | 2.00 | 31,519.50 | 10,506.50 | 661,909.50 | 1,323,819.00 | 2.00 | 1,386,303.26 |
| | | Services cost for item 5.A | | 2.00 | 11,221.60 | 3,740.53 | 235,653.40 | 471,306.80 | 12.36 | 493,552.48 |
| | | | | | | | 897,562.90 | Total of Product 5.A & Services 5.A with taxes | | 1,879,855.74 |
| 6 | A | P.C. Client / Node for 3 RCCs (12 each) / 6 ACCs (8 each) and 1 for Barkasayal | Nos | 85.00 | 3,373.11 | 1,124.37 | 70,835.31 | 6,021,001.35 | 4.72 | 6,305,192.61 |
| | | Product cost for Item 6.A | | 85.00 | 2,487.50 | 829.17 | 52,237.70 | 4,440,204.50 | 2.00 | 4,649,782.15 |
| | | Services cost for item 6.A | | 85.00 | 885.61 | 295.20 | 18,597.61 | 1,580,796.85 | 12.36 | 1,655,410.46 |
| | | | | | | | 70,835.31 | Total of Product 6.A & Services 6.A with taxes | | 6,305,192.61 |
| 7 | A | 1500 Line Matrix Printer-Quietized Cabinet Model for HCC (2 Nos.) & 3 RCCs (1 each) | Nos | 5.00 | 18,463.49 | 6,154.50 | 387,733.49 | 1,938,667.45 | 4.72 | 2,030,172.55 |
| | | Product cost for Item 7.A | | 5.00 | 13,615.93 | 4,538.64 | 285,934.33 | 1,429,671.65 | 2.00 | 1,497,152.15 |
| | | Services cost for item 7.A | | 5.00 | 4,847.56 | 1,615.86 | 101,799.16 | 508,995.80 | 12.36 | 533,020.40 |
| | | | | | | | 387,733.49 | Total of Product 7.A & Services 7.A with taxes | | 2,030,172.55 |
| | B | 1000 Line Matrix Printer-Pedestal Model for HCC (1 No. for Road Sale Centre), RCC (1 No. for Barkasayal) & 6 ACCs (1 each) | Nos | 8.00 | 27,339.85 | 9,113.28 | 574,136.65 | 4,593,093.20 | 4.72 | 4,809,887.20 |
| | | Product cost for Item 7.B | | 8.00 | 20,161.82 | 6,720.61 | 423,398.42 | 3,387,187.36 | 2.00 | 3,547,062.60 |
| | | Services cost for item 7.B | | 8.00 | 7,178.03 | 2,392.67 | 150,738.23 | 1,205,905.84 | 12.36 | 1,262,824.60 |
| | | | | | | | 574,136.65 | Total of Product 7.B & Services 7.B with taxes | | 4,809,887.20 |
| | C | Laser Printer or Latest of equivalent / higher Specs (2 each for RCC/ACC) | Nos | 18.00 | 2,490.69 | 830.23 | 52,304.49 | 941,480.82 | 4.72 | 985,918.71 |
| | | Product cost for Item 7.C | | 18.00 | 1,836.76 | 612.25 | 38,571.76 | 694,291.68 | 2.00 | 727,062.25 |
| | | Services cost for item 7.C | | 18.00 | 653.93 | 217.98 | 13,732.73 | 247,189.14 | 12.36 | 258,856.47 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 52,304.49 | Total of Product 7.C & Services 7.C with taxes | | 985,918.71 |
| 8 | A | On line UPS 5 KVA with 4 hrs backup | Nos | 10.00 | 29,692.22 | 9,897.41 | 623,536.82 | 6,235,368.20 | 4.72 | 6,529,677.58 |
| | | Product cost for Item 8.A | | 10.00 | 21,896.58 | 7,298.86 | 459,828.18 | 4,598,281.80 | 2.00 | 4,815,320.70 |
| | | Services cost for item 8.A | | 10.00 | 7,795.64 | 2,598.55 | 163,708.64 | 1,637,086.40 | 12.36 | 1,714,356.88 |
| | | | | | | | 623,536.82 | Total of Product 8.A & Services 8.A with taxes | | 6,529,677.58 |
| | B | 1 KVA off line /Line Interactive UPS | Nos | 85.00 | 932.05 | 310.68 | 19,572.85 | 1,663,692.25 | 4.72 | 1,742,218.52 |
| | | Product cost for Item 8.B | | 85.00 | 687.34 | 229.11 | 14,433.94 | 1,226,884.90 | 2.00 | 1,284,793.87 |
| | | Services cost for item 8.B | | 85.00 | 244.71 | 81.57 | 5,138.91 | 436,807.35 | 12.36 | 457,424.66 |
| | | | | | | | 19,572.85 | Total of Product 8.B & Services 8.B with taxes | | 1,742,218.52 |
| 9 | A | Switch with allied accessories for client integration | Nos | 10.00 | 2,832.14 | 944.05 | 59,475.14 | 594,751.40 | 4.72 | 622,823.67 |
| | | Product cost for Item 9.A | | 10.00 | 2,088.57 | 696.19 | 43,859.97 | 438,599.70 | 2.00 | 459,301.61 |
| | | Services cost for item 9.A | | 10.00 | 743.57 | 247.86 | 15,615.17 | 156,151.70 | 12.36 | 163,522.06 |
| | | | | | | | 59,475.14 | Total of Product 9.A & Services 9.A with taxes | | 622,823.67 |
| 10 | A | 42 U server racks to be supplied with all accessories for mounting servers, LTO Library, SAN Storage, SAN Switch and KVM based console at HCC | Nos | 1.00 | 4,702.32 | 1,567.44 | 98,748.72 | 98,748.72 | 4.72 | 103,409.66 |
| | | Product cost for Item 10.A | | 1.00 | 3,467.73 | 1,155.91 | 72,822.33 | 72,822.33 | 2.00 | 76,259.54 |
| | | Services cost for item 10.A | | 1.00 | 1,234.59 | 411.53 | 25,926.39 | 25,926.39 | 12.36 | 27,150.12 |
| | | | | | | | 98,748.72 | Total of Product 10.A & Services 10.A with taxes | | 103,409.66 |
| | B | 24 U server racks to be supplied with all accessories at RCCs & ACCs | Nos | 10.00 | 2,349.96 | 783.32 | 49,349.16 | 493,491.60 | 4.72 | 516,784.40 |
| | | Product cost for Item 10.B | | 10.00 | 1,732.98 | 577.66 | 36,392.58 | 363,925.80 | 2.00 | 381,103.10 |
| | | Services cost for item 10.B | | 10.00 | 616.98 | 205.66 | 12,956.58 | 129,565.80 | 12.36 | 135,681.31 |
| | | | | | | | 49,349.16 | Total of Product 10.B & Services 10.B with taxes | | 516,784.40 |
| | | | | | | | | | TOTAL | 62,303,148.97 |

| Name of Work: Turnkey Project for Supply, installation, commissioning and maintenance of RISC/EPIC Servers along with allied accessories on rental basis for 5 years in CCL | | | | Annexure-B |
|---|---|---|---|---|

| Tender Ref no: CM(MM)(P-III)/13-14/SERVER/155; Adv. No. 06/2013-14; Sl. No. 011 | | | | |
|---|---|---|---|---|

| Bidder Name: | M/s Orange Business Services India Technology Services Pvt. Ltd | | | |
|---|---|---|---|---|

## TECHNICAL  Specification of Supply Order No.-155 01 11 14- 371 Dt.28.03.14

| S. No * | Item Code * | Description of Item * | Specification Parameter * | MAKE & MODEL |
|---|---|---|---|---|
| 1 | item1 | Database and Application Servers for HCC | Processor Type : 64 Bit RISC/EPIC Latest Generation Processor from OEM (Declaration for same from OEM) | |
| | | | No of Processors / Cores2 : processors each with minimum 3 cores/processor  (scalable upto 4 cores/processor) for Database server software / Application server software either in Active-Active Cluster or Active-Passive Cluster. Cores should be made available using OEM's own virtualization technology | |
| | | | Processor Clock Speed Minimum 1.7 GHz or higher | |
| | | | Processor Cache. Cache should be minimum 2 MB per Core or 10 MB or higher per processor | |
| | | | Memory 64 GB Memory Scalable up to 256 GB Memory. Memory should be DDR3 or Higher | |
| | | | Internal RAID Internal RAID with RAID 1,0 | |
| | | | Network Interface Ports Minimum 4 * 1 Gigabit Ethernet Ports | HP Integrity rx2800i4 |
| | | | FC Ports for Storage Connectivity 1 X Dual port FC HBA | |
| | | | I/O Slots Each physical servers shall be configured with minimum 5 PCI Slots | |
| | | | Internal HDD Minimum 2 * 300 GB SAS SFF HDD or higher | |
| | | | Power Supply Minimum 2 Power supplies for Redundancy | |
| | | | OS 64 Bit OEM Enterprise Unix with 32 Bit Compatibility | |
| | | | Clustering tool OS Clustering tool should be offered for the proposed OS. The clustering tool should be provided with high availability agents for Oracle database and Oracle Real Application Cluster | |
| | | | Compilers C, C++ Compilers should be provided on the offered OS | |
| | | | Form Factor Rack / Blade | |
| 2 | item2 | Common console for server management for all servers in the data centre for HCC | Common console for server management for all servers in the data centre for HCC : Bidder to propose either KVM based console ( KVM switch + Flat Panel TFT Monitor for all RISC and existing Xeon servers (5 Nos.) | ATEN-CS1308/ HP TFT7600 G2 KVMConsole & Monitor |
| 3 | item3 | Database and Application Servers with External Backup Drive for RCCs ( MRS, JDH & NK ) / ACCs (Argada, Kuju, Rajrappa, Hazaribag, Dhori, and B&K Areas) and Backup at CCL Sales Office Kolkata. | Processor Type 64 Bit RISC/EPIC Latest Generation Processor from OEM (Declaration for same from OEM) | |

| | | | | |
|---|---|---|---|---|
| | | | No of Cores<br>Minimum Quad core processor to be offered and out of the 4 cores, 2 cores to be used for Database server software either in Active-Active Cluster or Active-Passive Cluster and 2 cores to be used for Application server software either in Active-Active Cluster or Active-Passive Cluster. Cores should be made available using OEM's own virtualization technology | |
| | | | Processor Clock Speed<br>Minimum 1 6 GHz or higher | |
| | | | Processor Cache<br>Cache as per the offered processor. Vendor should specify the amount of cache provided | HP Integrity rx2800i4 |
| | | | Memory<br>32 GB Memory Scalable up to 128 GB Memory. Memory should be DDR3 or Higher or as per offered product | |
| | | | Internal RAID<br>Internal RAID with RAID 1,0, 5 | |
| | | | Display Device<br>Minimum 17" TFT monitor | |
| | | | Network Interface Ports<br>Minimum 2 * 1 Gigabit Ethernet Ports | |
| | | | FC Ports for Storage Connectivity<br>1 X Dual port FC HBA | |
| | | | SAS Port<br>1 * External SAS Port for Tape Drive Connectivity | |
| | | | I/O Slots<br>Minimum 4 PCI-Express Slots | |
| | | | Internal HDD<br>4 * 600GB SAS SFF HDD or higher | |
| | | | OS<br>64 Bit OEM Enterprise Unix with 32 Bit Compatibility | |
| | | | Compilers<br>C, C++ Compilers should be provided on the offered OS | |
| | | | LTO Drive`<br>1 * LTO5 Drive with SAS Connectivity along with 6 * LTO5 Data Cartridges and 1 * Cleaning Cartridge | |
| | | | Form Factor<br>Rack | |
| 4 | item4 | External SAN Storage System for HCC & with Backup server at CCL Sales Office Kolkata. | | |
| 4A | item4A | Common SAN Storage System ( Connected to Database , Application Servers and 5 nos of Linux/Windows server. Provision should be made for connectivity for additional servers with the SAN switches) | Controllers<br>The proposed SAN array shall be configured with dual controllers for redundancy with Minimum 4 GB cache or memory and 4 * 8 Gb/s host ports per controller. Storage System should be provided with Fibre Channel Interface (HBA). iSCSI/SAS should be provided as additional features. | |
| | | | Offered Capacity<br>The proposed SAN array shall be configured with minimum 10 TB Usable Storage Space using 300/450GB or higher using 15K RPM 4Gb/s FC or 10K RPM 6Gb/s SAS Disks and configured under RAID-1 and should have scalable up to 20 TB. The storage should support online LUN expansion feature with no downtime to the host system. | HP, p6350 SAN Array |
| | | | RAID Levels<br>The Proposed SAN Array should support RAID Levels (0, 1, 10, 5 & 6) or (10/DP/6, 4/5) | |
| | | | Thin Provisioning or Virtual Provisioning<br>Thin Provisioning or Virtual provisioning must be supported and licenses for the same should be provided | |
| | | | Snapshots & Volume Clones<br>Offered Storage should support snapshots & volume clones and the licenses for the same should be provided | |

| | | | Management<br>Support a browser based built in management with dedicated Ethernet/Management port for management. Data traffic and management traffic should not be from the same port. | |
|---|---|---|---|---|
| 4B | item4B | OEM Backup software with online backup agent for Oracle Database for HCC | The proposed backup solution shall be offered with unlimited client and Media (Both Cluster and standalone) or at least 10 Client and Media license (Both Cluster and standalone) for SAN based backup and LAN based backup. | |
| | | | The proposed backup solution shall be offered with licenses for Unix and Linux system backup | |
| | | | The proposed backup solution shall be offered with licenses for online backup of Oracle Database | |
| | | | The proposed Backup Solution Software has inbuilt Java / Web based GUI for centralized management of backup domain | |
| | | | Ability to backup data from one server platform and restore it from another server platform to eliminate dependence on a particular OS machine and for disaster recovery purposes. | |
| | | | Backup Software shall support encryption and all encryption keys shall be stored on to backup server for effective management | |
| | | | The proposed solution also supports advanced Disk staging | |
| | | | The proposed Backup Solution has in-built media management and supports cross platform Device & Media sharing in SAN environment. It provides a centralized scratched pool thus ensuring backups never fail for media | HP Data Protector 7.0 |
| | | | Backup Software shall support Synthetic backup so that Full backup can be constructed directly from the disk based incremental backups | |
| | | | Backup Software is able to rebuild the Backup Database/Catalog from tapes in the event of catalog loss/corruption. | |
| | | | The proposed Backup Software shall offer OPEN File Support for windows | |
| | | | The proposed Backup Solution has certified "Hot-Online" backup solution for different type of Databases such as Oracle, MS SQL, Sybase etc | |
| | | | Backup software must support Robotic/automated Tape library, the licensing of such library should be on the number of slots and not on the drive counts so as to avoid buying new licenses when additional drives are added to improve performance. | |
| | | | The Proposed backup solution shall provide granularity of single file restore | |
| | | | The Proposed backup solution shall be designed in such a fashion so that every client/server in a SAN can share the robotic | |
| | | | Backup Solution shall be able to copy data across firewall | |
| | | | Backup Solution shall support automatic skipping of backup during holidays | |
| 4C | Item4C | External Tape Library for HCC | Drive Type<br>LTO5 | |
| | | | No of Drives<br>2 | |
| | | | No of Slots<br>Minimum 40 | HP/ Model - HP MSL4048 |
| | | | Power Supplies<br>Redundant Power Supplies | |
| | | | Media Supply<br>20 * Barcoded data cartridges & 2 * Cleaning Cartridges | |
| | | | Form factor<br>Rack-mount | |
| 5 | Item5 | SAN Switch for HCC | Performance<br>8 Gbps Fibre Channel | |
| | | | Ports<br>24 Fibre Channel ports to be provided | |
| | | | Aggregate Switch Bandwidth<br>100 Gbps or Higher | HP/ Model-B-Series 8/24 |
| | | | Protocol Support<br>All protocols including Fibre Channel | |
| | | | Management<br>Required Management software for the switch to be provided | |
| | | | Form Factor<br>Rack-mount | |

| | | | | |
|---|---|---|---|---|
| 6 | Item6 | P.C. Client / Node for 3 RCCs (12 each) / 6 ACCs (8 each) and 1 for Barkasayal | **Processor** Dual Core or above Processor with min 3.3 GHz frequency or higher, Spec_CPU_rate_base 2006 min. 75 (60% of Spec_CPU _rate_base 2006 plus 40% Spec fp rate base 2006) with 4GB Memory | |
| | | | **Motherboard** Intel /OEM Motherboard | |
| | | | **Cache** Total Cache of 3MB or Higher | |
| | | | **Chipset** Intel Q67/AMD 880 G or higher Chipset | |
| | | | **RAM** 4GB DDR3 1333-MHz(2*2GB), total 4 DIMMs expandable upto 32 GB | |
| | | | **Hard Disk** 320-GB SATA 7200 RPM | |
| | | | **Optical Drive** SATA DVD Writer Optical Drive | |
| | | | **Graphic** Integrated HD Graphics | |
| | | | **Keyboard** USB Type Windows Mechanical Keyboard. Keyboard should be of same color as the base PC | |
| | | | **Display** 18.5" color TFT Monitor with Internal Speakers (Optional). Monitor should be of same make and color as the base PC. | |
| | | | **Bays** Minimum 3 Bays , Minimum 4 PCI / PCI Express Slots | |
| | | | **Network Support** 10/100/1000 Ethernet Card | Lenovo / M93p |
| | | | **Mouse** USB 2 button optical scroll mouse should be of same make and color as the base PC | |
| | | | **Power Supply** 85% Energy Efficient Power Supply with surge protection, ROHS compliant. | |
| | | | **Ports** Rear I/O: (4) USB 2.0, (1) standard serial port, (1) RJ-45, (1) VGA, audio in/out , (1) DVI-D Port / (1) Display Port Front I/O: (2) USB 2.0, headphone and microphone | |
| | | | **Operating System** Preinstalled Windows 7 Professional edition or latest (OEM License) with recovery media. | |
| | | | **Certification** Windows (Latest) & LINUX Certification | |
| | | | **Accessories** Necessary accessories like Power cord etc. Operating documentation / Manuals | |
| | | | **Monitoring Software** Software which gives the following function: 1.Asset Management 2.System Health Management 3 Remote Monitoring 4.OEM's Diagnostic tool for hardware diagnostics | |
| | | | **Other Certification** FCC/UL/ERTL, Win 7 and Linux Certification. ROHS Compliance for PC , TCO 05 for Monitor, Energy Star compliance for both Desktop and Monitor. | |
| | | | **Special Feature(s)** TPM 1.2 chip, Hood / chassis Sensor, Alert to be shown on the console in case of any memory change. | |
| 7 | item7 | Printer | | |
| 7A | Item7A | 1500 Line Matrix Printer-Quietized Cabinet Model for HCC (2 Nos.) & 3 RCCs (1 each) | **Printing Technology** Line Impact Dot Matrix | |
| | | | **Speed** 1500 LPM | |
| | | | **Character Pitch** 15 CPI or More | |
| | | | **Line Pitch** 10 LPI or more | Lipi/6615 |
| | | | **Paper Handling** Bottom Feed, Continuous, Fan folded, Edge perforation, | |
| | | | **No. of Copies** Upto 5 parts or more | |

| | | | | |
|---|---|---|---|---|
| | | | Interface<br>Parallel, Serial,network(optional) | |
| | | | Ribbon<br>Cartridge Type ribbon | |
| | | | Pedestal<br>With closed cabinet | |
| 7B | Item7B | 1000 Line Matrix Printer-Pedestal Model for HCC (1 No. for Road Sale Centre), RCC (1 No. for Barkasayal) & 6 ACCs (1 each) | Printing Technology<br>Line Impact Dot Matrix | |
| | | | Speed<br>1000 LPM | |
| | | | Character Pitch<br>15 CPI or More | |
| | | | Line Pitch<br>10 LPI or more | Lipi/6610 |
| | | | Paper Handling<br>Bottom Feed, Continuous, Fan folded, Edge perforation | |
| | | | No. of Copies<br>Upto 5 parts or more | |
| | | | Interface<br>Parallel, Serial,network(optional) | |
| | | | Ribbon<br>Cartridge type ribbon | |
| | | | Pedestal<br>with Closed Cabinet | |
| 7C | ITEM7C | Laser Printer or Latest of equivalent / higher Specs (2 each for RCC/ACC) | Technology<br>Electrophotographic monochrome laser printer | |
| | | | Print speed<br>A4 Up to 25ppm (pages per minute) or higher | |
| | | | Duplex<br>Automatic | |
| | | | Resolution<br>1200 X 1200 DPI | |
| | | | Processor<br>300 Mhz or higher | Canon LBP 6680X |
| | | | Memory<br>32 MB or higher | |
| | | | Interface<br>Hi-Speed USB 2.0 or higher | |
| | | | OS compatibility<br>Windows XP / Vista / 7 or higher | |
| | | | Paper input<br>250 sheet standard paper tray or higher | |
| | | | Priority feed slot<br>10-sheet priority feed slot or higher | |
| | | | Network<br>Built-in 10/100 Ethernet networking | |
| 8 | item8 | UPS | | |
| 8A | Item8A | On line UPS 5 KVA with 4 hrs backup | 1. VA Rating : 5 KVA | |
| | | | a) Inverter technology: IGBT BASED PWM TECHNOLOGY. | |
| | | | (b) Noise level: Less than 45 dB. | |
| | | | c) Operating Temperature : 0° to 40° C | |
| | | | d) Humidity : 10% - 90% Non condensing | |
| | | | (e) Harmonic Distortion: Less than < 3% for linear load & Less than < 5% for non linear load. | |
| | | | (f) Output Waveform : Sinusoidal | |
| | | | (g) Cold Start Feature : Should be provided | |
| | | | (h) Generator compatibility : Should be provided even with genset having distorted wave form & frequency fluctuations (more than 45 Hz) | |
| | | | (i) Default Software : UNIX Bundled;<br>Optional S/w: Windows XP | |
| | | | (j) RS 232 Port (SNMP): 1 No. | |
| | | | (k) Product compliance to CE, ISO 9000/9001 and IEC 62040-1 | |

| | | | 2. UPS INPUT : | |
|---|---|---|---|---|
| | | | (a) Input Voltage : 160V AC to 280V AC | |
| | | | (b) Input Frequency Range : 50 Hz ± 10 % | |
| | | | (c) Input over voltage protection : Should be provided | |
| | | | (d) Input under voltage protection : Should be provided | |
| | | | 3. UPS OUTPUT : <br> (a) Output Voltage : 230 V AC single phase | |
| | | | (b) Regulation : 230V AC ± 2% | |
| | | | (c) Output frequency : 50.0Hz ± 0.2Hz DSP controlled | |
| | | | (d) Transient response : ± 10% with 100% load of P.F 0.8% | |
| | | | (e) Load Power Factor : 0.7 Lagging | TINY TRITON- <br> TT-5K |
| | | | (f) Short circuit protection : should be provided. | |
| | | | (g) Output over voltage protection : should be provided. | |
| | | | (h) Output under voltage protection : should be provided. | |
| | | | (I) Efficiency : Better than 85%. | |
| | | | (j) Battery low : UPS should shut down. | |
| | | | (k) Over load : UPS should shut down . | |
| | | | (l) Manual by pass switch : should be provided. | |
| | | | (m) Indicators : I) Mains On <br> II) Battery Charging <br> III) Battery Low <br> IV) Invertor On <br> V) Output Low & High Voltage <br> VI) UPS overload <br> VII) UPS on by pass | |
| | | | (n) Digital Metering : <br> a) AC Input/Output Voltage <br> b) AC Input/Output Current <br> c) Battery Charge/Discharge Current or Battery Capacity <br> d) Battery Charging Voltage <br> e) Frequency Input/Output | |
| | | | (o) Alarms (Audible) : <br> Mains failure <br> Battery low <br> Overload | |
| | | | (p) Sealed Maintenance Free (SMF) Battery : <br> I) 12 V - 75 AH X 20 X 2 Nos. or equivalent / higher VAH for 5 KVA <br> II) Placed on Battery rack made of Mild Steel | |
| 8B | Item8B | 1 KVA off line /Line Interactive UPS | Input Voltage 140 to 300 V | |
| | | | Input Frequency 50 Hz +/- 5% | |
| | | | Output Voltage 230 V +/- 5% | |
| | | | Output Frequency 50 Hz +/- 0.5% ( Battery mode ) | Make -'TINY TRITON/ Model: TL-1K |
| | | | Output Wave form Modified Sine wave / Quasi Sine wave | |
| | | | Transfer Time < 5 milli seconds | |
| | | | AVR Voltage 190 V – 250 V | |
| | | | Battery Inbuilt SMF | |
| | | | 12 V - 7 AH or higher X 4 Nos. | |
| | 9 | Item9 | Switch with allied accessories for client integration | 24 x 10/100/1000 Base T Interfaces with 4 x 1000 Base X Interfaces, Rack Mountable Layer 2 Switch (1 each for HCC/RCC/ACC) | HP 2530 switch |
| | 10 | item10 | Racks | | |
| 10A | Item10A | 42U Racks | 42 U server racks to be supplied with all accessories for mounting servers, LTO Library, SAN Storage, SAN Switch and KVM based console at HCC | Valrack |
| 10B | Item10B | 24U Racks | 24 U server racks to be supplied with all accessories at RCCs & ACCs | Valrack |