



BHARAT COKING COAL LIMITED
(A Subsidiary of Coal India Limited)
Office of the Chief General Manager(MM)
Materials Management Department
Commercial Block L-III , Koyla Bhawan : Koyla Nagar
Dhanbad : 826005(Fax No- 0326-2230183)

ORDER NO. BCCL/ PUR/ 112014/COMP HW-SW-SERVER/12-13/211

Dt- 08.02.2013

To

M/s Webel Technology Limited,

(Vendor Code: 1/12/M/P/006)

Plot-5, Block BP, Sector-5,

BY REGD POST

Salt Lake, Kolkatta-700091

Fax: 033 2367 9418

SUB: Supply, Installation and Commissioning and maintenance of Servers, related computer hardware/software and other peripherals on rental basis for a period of 60 months to BCCL

REF:

i)Our E-Tender No. BCCL/PUR/12014/COMPTER HW/SW/12-13/17 DATE- 02-06-12,COVER-1 OPENED ON 13.07.12 and on 14.07.12(Online) and Cover-II(Price bid) on 20.12.12 for Supply, Installation and Commissioning and maintenance of Servers, related computer hardware/software and other peripherals on rental basis for a period of 60 months to BCCL

ii)Your offer no. WTL/BCCL/2012-13/001 dated 12.07.12 and subsequent correspondence.

iii)Our letter no. BCCL/ PUR/ 112014/COMP HW-SW/12-13/clarifications/17/2984 Dt- 02.11.2012

iv)Your letter no. WTL/BCCL/16 NOV/001 dated 16.11.12

v) Our letter no. BCCL/ PUR/ 112014/COMP HW-SW/12-13/clarifications/17/ 3466 Dt- 19.12.2012 for price bid opening

vi)Our letter no. BCCL/ PUR/ 112014/COMP HW-SW/12-13/clarifications/17/ 3499 Dt- 21.12.2012 for price justification

vii) Your letter no. nil dated 22.12.12 & letter no.WTL/BCCL/16 NOV/002 dated 24.12.12 confirming price justification

viii)Your letter no.WTL/BCCL/16 NOV/003 dated 07.01.13

ix) Our Letter Of Intent vide no. BCCL/ PUR/ 112014/COMP HW-SW/SERVER/12-13/3920-23 Dt-24.01.2013

Dear Sirs,

With reference to the above, we are pleased to place an order on you for Supply, Installation and Commissioning and maintenance of Servers, related computer hardware/software and

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other peripherals on rental basis for a period of 60 months to BCCL at the rates indicated in Annexure-I enclosed, as per the special terms and conditions, scope of supply and technical specification specified in the Annexure-II enclosed, as per the terms and conditions given hereunder along with general terms and conditions of NIT.

1.SCOPE OF WORK: You shall Supply, install and commission and maintain new Servers and related hardware / software devices specified in the Bill of Materials (BOM) at Main Data Centre (MDC) i.e. Central Site located at BCCL HQ, Koyla Nagar, Dhanbad (Jharkhand) and Near Data Centre (NDC) site at BCCL Kolkata office located at 6 Lyons Range, Kolkata (W.B.), as per terms and conditions given under as per our NIT and as per Other details as per Annexure-I & Annexure-II enclosed.

2.TOTAL VALUE OF THE CONTRACT: Rs **15,46,63,534.00** (RUPEES FIFTEEN CRORES FORTY SIX LAKHS SIXTY THREE THOUSAND FIVE HUNDRED AND THIRTY FOUR ONLY). The break up of the total value of the contract showing item/equipment wise OTC (one time charge) and Rental (monthly and total during the contract period) payable as per the scope of contract is as per Annexure-I enclosed. However, the actual payment of OTC and rental shall be based on the actual qty of installation for items/equipments at sl.no.1 to 15 of Annexure-I within the scope of contract.

3.FIRM RATES: The rates at sl.no.1 to 15 of Annexure-I shall remain firm during the currency of contract.

4.TAXES AND DUTIES: The System is on monthly rental basis, which includes maintenance for a period of sixty months. Rental shall be uniform for the entire rental period of sixty months and inclusive of all taxes, levies, duties.

5.DELIVERY PERIOD: Delivery of the items at sl.no.1 to 15 of Annexure-I as per technical specification given in the order shall be completed within 8 weeks from the 10th day of the date of issue of this order. The materials are to be delivered at user locations located within 60 KMs radius of Dhanbad and at BCCL-Kolkata Office.

5 A. PERIOD OF CONTRACT AND TIME PERIOD FOR INSTALLATION: Period of contract is Five years (60 months) from successful installation and commissioning of all the equipment specified in the Bill of Materials as per Annexure-II. You are required to complete all activities related with supplies, installation and commissioning work inclusive of migration of application software and data from old systems to the new set-up, where applicable, within 8 (eight) weeks from the date of delivery of the systems. The period of contract (i.e. Rental period) will start only after successful completion of the activities related with supplies, installation and commissioning work inclusive of migration of application software and data from old servers to the new set-up.

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6.PAYMENT TERMS:

- a) OTC,if applicable,shall be paid only against timely completion of successful installation and commissioning of supplied equipment and/or systems as specified in the work order and submission of certificate to this effect issued by the General Manager (Systems), BCCL or his authorised representative.
- b) The Monthly Charges shall be paid on quarterly basis against the bills/invoices raised quarterly at the beginning of each quarter which will be paid within 30 (thirty) days on receipt of the same except the quarterly charges bill for the last quarter.
- c) The bills for the first quarterly charges shall be raised on successful installation, and commissioning of all the items supplied within the stipulated completion period and shall be paid within 30 days on receipt of the same. Penalty charges, if any, during a quarter will be recovered from the bill of the next quarter.
- d) Bill for the last quarter will be raised on completion of the last quarter and shall be paid after deducting all outstanding penalty charges, if any, and current penalty charges for the last quarter .

However,the actual payment of OTC and rental shall be based on the actual qty of installation for items/equipments at sl.no.1to 15 of Annexure-I within the scope of contract.

The payment will be made through Electronic System(EFT) as per the Bank Details in the format provided by you alongwith the tender.

7.CONSIGNEE:General Manager (Systems) or his authorised representative, Bharat Coking Coal Limited, Koyla Bhavan, Koyla Nagar, Dhanbad (Jharkhand) 826005, for materials to be installed at BCCL-HQ, Dhnabad.

For other equipments concerned Area GMs or his authorised representative/ I-C BCCL-Kolkata Office, Kolkata.

The details location of installation/consignee item wise shall be furnished by GM(System),BCCL directly to you under intimation to this office.

8. SUBMISSION OF DOCUMENTS FOR PAYMENT: You will submit the following documents along with the quarterly bill to the paying authority:

A) **For Payment of first quarterly bill:**

- a) Pre-receipted and stamped invoice in triplicate
- b) Receipted challan.
- c) Inspection / Acceptance Certificate.
- d) Manufacturer's Test and Inspection Certificate.
- e) Guaranty / Warranty Certificate
- f) Undertaking of Authenticity as indicated in Annexure-II of the order
- g) Performance Bank Guarantee as indicated elsewhere in the order

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B) For Payment of subsequent quarterly bills:

- a) Pre-receipted and stamped invoice in triplicate for the applicable Quarter.
- b) Satisfactory Performance Certificate indicating break-down details, if any, during the previous quarter. The performance certificate is to be obtained by you from the General Manager (Systems) BCCL for the equipment and services for MDC and NDC.

9.WARRANTY/GUARRANTY: You shall guarantee that the material / equipment, which include Computer Hardware, Software, UPS, etc supplied under this contract, shall be in accordance with the contract specifications and shall have no defects arising out of design, materials or workmanship and shall carry respective manufacturer's standard warranty.

You will be responsible for smooth functioning of the material / equipment, which include Computer Hardware, Software, UPS, etc supplied under this contract, for the entire period of the contract, i.e. 60 months from the date of successful installation and commissioning. You must ensure that no major breakdown occurs due to manufacturing / design / material / workmanship defect during the contract period. In case of any failure / malfunctioning of the material / equipment, which include Computer Hardware, Software, UPS, etc supplied under this contract, repair or replacement of the same will be arranged by you free of cost.

10.GUARANTEED AVAILABILITY & PENALTY CLAUSE:As indicated in Annexure-II of the order.

11.PAYING AUTHORITY: Chief Manager (Finance)/In-Charge, Pay Office, BCCL HQ, Dhanbad.

12.SECURITY DEPOSIT: Exempted being Govt of WB undertaking.

13.PERFORMANCE BANK GUARANTEE (PBG)- PBG (in the prescribed format as per copy enclosed) on non-judicial stamp paper from a schedule/Nationalized Bank in India valid for three months beyond the expiry of Guarantee/Warranty period of the contract (ie valid for 63 months from the date of successful installation/commissioning of the system) for 10% value of the contract ie for Rs1,54,66,354.00 (Rupees One crore Fifty four Lakhs Sixty six Thousand Three hundred and fifty four only) for satisfactory performance of the contract shall have to be submitted to MM Division, BCCL, Koyla Bhawan on or before commencement of supply/ installation/commissioning.

The original Bank Guarantee should be sent to the beneficiary directly by the issuing bank under registered post with A.D. The Bank Guarantee shall be released after expiry of the contract period on completion of the supplier's performance obligations under the contract, including any warranty / guarantee/ maintenance obligations.

The PBG will be en-cashed and the proceeds shall be utilised by the purchaser as compensation for any loss resulting from the supplier's failure to complete its obligations

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under the contract. For this purpose, the purchaser shall notify the supplier in writing of its invocation of its right to receive such compensation within 7 days indicating the contractual obligation(s) for which the supplier is in default. In case you fail to submit the required bank guarantee along with the bills or the confirmation of the issue of the bank guarantee by the issuing bank is pending, then the equivalent amount shall be deducted from your bills in lieu of bank guarantee and balance amount shall be released.

In case the contractor wants to convert their "Bank Guarantee for Security Deposit" into Performance Bank Guarantee, the validity of Bank Guarantee for Security Deposit should cover the required performance period. Also, the amount of Bank Guarantee should be equal to the required amount of Performance Bank Guarantee. In such case, no separate Performance Bank Guarantee shall be required to be submitted.

14.Liquidated Damage(LD) Clause:

In the event of failure to deliver the equipment/stores within the stipulated date/period to effect supply in accordance with the terms and conditions and the specifications mentioned in the supply order and in the event of breach of any of the terms and conditions mentioned in the supply order, Bharat Coking Coal Ltd., shall be entitled at its option either to enforce the following:

- a) To recover from you as agreed liquidated damages, a sum of 0.5%(Half Percent) of the price of any stores which you have not been able to supply as aforesaid for each week or part of a week during which the delivery of such stores may be in arrears limited to **10% (Ten Percent)** and where felt necessary by BCCL it may be increased up to 15 %..
- b) To cancel the supply order or a portion thereof, and if so desired to purchase the stores at the risk and expenses of the defaulting supplier and also/or
- c) To purchase elsewhere after notice to you ie defaulting supplier on the account and at the risk of the defaulting supplier, the equipment/stores not supplied or others of similar description without canceling the supply order in respect of the consignment not yet due for supply/or
- d) To extend the period of delivery with or without liquidated damages as may be considered fit and proper. The liquidated damages if imposed, shall not be more than the agreed liquidated damages referred to in Clause (a) above except in case of force majeure condition.
- e) Whenever under this contract any sum of money is recoverable from and payable by the supplier, Bharat Coking Coal Ltd., shall be entitled to recover such sum by appropriating in part or in whole by deducting any sum or which at any time thereafter may become due to the successful tenderer in this or any other contract, should this sum be not sufficient to recover the full amount recoverable. The successful tenderer shall pay to Bharat Coking Coal Ltd., the balance amount on demand of the remaining balance. The supplier shall not be entitled for any gain on any such purchase.
- f) To forfeit the security deposit fully or in part

15.Force Majeure Conditions - If the execution of the Contract / Supply Order is delayed beyond the period stipulated in the Contract / Supply Order as a result of hostilities, declaration of embargo or blockade or flood, acts of nature or any other contingency beyond

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the supplier's control due to act of God, then BCCL may allow such additional time by extending the delivery period as is considered justified by the circumstances of the case and its decision shall be final. In case additional time is granted by BCCL for execution of the

Contract / Supply Order, the Contract / Supply Order shall be read and understood as if it had contained from its inception the delivery date as extended.

a) The contractor will advise, in the event of his having to resort to this clause, by a registered letter, duly certified by the local chamber of commerce, or statutory authorities, the beginning and end of the causes of the delay, within 15 days of the occurrence and cession of such force majeure conditions. In the event of delay lasting out of force majeure, BCCL will reserve the right to cancel the contract, and provisions governing termination of contract as stated in the bid documents will apply.

b) For delay arising out of Force majeure, the contractor will not claim the extension in completion date for a period exceeding the period of delay attributable to the causes of force majeure and neither BCCL nor the contractor shall be liable to pay extra cost provided it is mutually established that the force majeure conditions did actually exist.

c) If any of the force majeure conditions exist in the place of operation of contractor even in the time of submission of bid, he will categorically specify them in his bid, and state whether they have been taken in to consideration in their quotation.

16.PRICE FALL CLAUSE - The price charged for the Stores / Equipment supplied against the order, shall in no event exceed the lowest price at which the contractor shall sell or offer to sell the Stores / Equipment of identical description to its any other customer during the pendency of the Contract / Supply Order. If the contractor at any time during the pendency of the Contract / Supply Order sells or offers to sell such stores to any customer, at a price lower than the price stipulated in the Contract / Supply Order placed by BCCL, the contractor shall forthwith notify to BCCL such reduction in sale price of stores / equipment supplied after such reduction coming into force shall stand correspondingly reduced.

17. SUSPENSION,CANCELLATION & FORECLOSURE OF RENTAL CONTRACT:

17.1 BCCL shall, in addition to other remedial steps to be taken as provided in the conditions of rental contract be entitled to cancel the rental contract in full or in part, if the supplier :

a)Commits default/breach in complying with any of the terms & conditions of the rental contract and does not remedy it or fails to take effective steps for the remedy to the satisfaction of the officer-in-charge nominated by the consignee for this purpose,

OR

shall offer or give or agree to give to any person in service of the company or to any other person on his behalf any gift or consideration of any kind as an inducement or reward to act or acts of favour in relation to the obtaining or execution of his contract for the company,

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OR obtain a contract with company as a result of ring tendering or other non-bonafide methods of competitive tendering or transfers, subjects, assigns the entire work or any portion thereof without the prior approval in writing from BCCL or its authorised representative.

b) Notwithstanding anything contained hereinbefore, if the successful bidder/supplier fails to perform its contractual obligation and/or make breach of the contract in any form and/or make delay in progress and if BCCL is of the opinion that the successful bidder/supplier is not in a position to complete the work within schedule time or within a reasonable extended period, in such case BCCL shall be entitled without prejudice to its right to fulfilment, to engage other at the risk and cost of the successful bidder/supplier and to claim the difference in price and adjust/recovery thereof from the dues of security deposit or the performance bank guarantee or to recover/adjust from the dues of the successful bidder/supplier from BCCL or from other subsidiary company of Coal India Limited, Kolkata.

17.2. The rental contract shall stand terminated under the following circumstances:

a) If the contractor is under liquidation either by a resolution passed by the company or by an order of court, not being a voluntary liquidation proceedings for the purpose of amalgamation or re-organisation, or a receiver or manager is appointed by the court on the application by the debenture holders of the company, if any.

b) On cancellation of the rental contract or on termination of the rental contract, for reasons as specified above, BCCL or its authorised representative will have the powers :

i. To determine the amount to be recovered from the bidder for completing the remaining installation work or in the event of the remaining work is not to be completed the loss/damage suffered, thereof, if any, by the company, after giving credit for the value of the work executed by the supplier up to the time of cancellation less on a/c payments made till that date and value of contractor's materials etc. taken possession by BCCL after cancellation of the contract.

ii. To recover the amount determined as above, if any, from any money due to the supplier on any account or under any other contract and in the event of any shortfall, the bidder shall be called upon to pay the same on demand.

18. TERMINATION OF RENTAL CONTRACT:

a) The rental contract awarded expires on completion of 60 months rental period from the date of commencement of rental period for the respective job unless it is renewed upon by mutual consent in writing for such further period and on such terms and conditions as are agreed upon.

b) If the BCCL wishes to terminate the contract after completion of 48 months from the date of start of the rental period, for reasons other than unsatisfactory performance of the service provider, BCCL will pay the compensation @ 30% of the Net Present Value (NPV) of the balance period out of a total 60 months rental period. NPV will be calculated on the basis of prevalent PLR on scheduled balance cash out-flows as on the date of termination of the rental contract.

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Enclosure:

Annexure-I- item/equipment wise OTC(one time charge) and Rental(monthly and total during the contract period) payable as per the scope of contract.

Annexure-II- Special terms and conditions,scope of supply and Bill of materials and Technical specification.

Format for Security deposit in the form of BG

Format for Performance BG

Bank details for EFT Payment as furnished alongwith the offer.

Yours faithfully,

(C R Samantray)

Chief Manager(MM)

For & on behalf of Bharat Coking Coal Ltd.

INDENT REFERENCE

Indent reference	Budget Certification no. & dt., & FC No.& dt.
Requirement vide note vide no. EDP/3497 Dated 09.01.12 Approved by CMD vide diary no.197/F Dated 16.03.2012,supplemented with Indent no. BCCL/HQ/SYS/2012-13/001 Dated 13.04.12	Advance budget For Value Rs 17,00,21,900/- given by HOD(C&B) for 2012 to 2017-18 ,communicated vide letter no.BCCL/FIN(C&B)/12/D/336 DATED 20.03.2012 & Additional advance budget For Value Rs 9,17,50,044/- given by Chief Manager(F)Cost & Budget Dept,BCCL for 2013-14 to 2018-19,communicated vide letter no vide NO. BCCL/FIN(C&B)/13/D/340 DATED 21.01.2013
MMD IR Regn no.112014/12-13 Dated 17.04.12	FC given by Chief Manager(F)Pay I/C,BCCL vide no.BCCL/REV/CM(FIN)Pay.I/C/FC/13-14 To 18-19/EDP/Hire Charges of New Server/01Dated 07.02.2013 for Rs 23,45,39,344.00

This issues with the approval of the Board of Directors of BCCL as per extract of minutes of 291st meeting held on 05.01.2013,circulated by GM(Company secy),BCCL vide his letter no.BCCL:CS:F-1(A):50 Dated 25.01.13

COPY:

1. GM(SYSTEM),Koyla Bhawan
2. GM(F),MM,Koyla Bhawan.
3. CHIEF MANAGER(FINANCE)/In-Charge,Pay Office,/ Chief Manager(F)Cost & Budget
Dept BCCL HQ, Dhanbad.
- 4.IEM: Justice Ashok Kumar Chakraborty (Retd),BB-69, Sector I Salt Lake, Kolkata – 700 064
- 5.GM(MM)CIL/CCL/SECL/ECL/NCL/WCL/MCL/NECL
- 6..MM(Tech Cell), MM Div, Koyla Bhawan
- 7.MF/Office Copy.

Chief Manager(MM)

For & on behalf of Bharat Coking Coal Ltd.

ANNEXURE—I(TWO PAGES)

ITEM/EQUIPMENT WISE OTC(ONE TIME CHARGE) AND RENTAL CHARGES AS PER SCOPE OF CONTRACT

Sl. No	Item Description in brief (Tech. Specs. as given in the Annexure-II)	U O M	Requ ired Qty.					
				OTC per Unit	Total OTC for the Item (4)x(5)	Monthl y Rent per Unit	60 months Rent for required quantity (4)x(7)x 60	Total Charge payable for 60 months rental period (6)+(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DB / Application Server	Set	4	77700.00	310800.00	38750.00	9300000.00	9610800.00
2	SAN Storage	Set	2	163750.00	327500.00	81860.00	9823200.00	10150700.00
3	SAN Switch	Set	3	51690.00	155070.00	25790.00	4642200.00	4797270.00
4	External LTO Tape library	Set	2	77090.00	154180.00	38525.00	4623000.00	4777180.00
5	Backup Server & Backup S/W	Set	1	216000.00	216000.00	108000.00	6480000.00	6696000.00
6	Modular cooling rack for servers	Set	2	171365.00	342730.00	85640.00	10276800.00	10619530.00
7	Unified Threat Mgt. System	Set	4	27860.00	111440.00	13593.00	3262320.00	3373760.00
8	Network Switch	Set	6	12420.00	74520.00	6210.00	2235600.00	2310120.00
9	On-line UPS	Set	4	21200.00	84800.00	10530.00	2527200.00	2612000.00
10	Administrative Console	Set	1	12600.00	12600.00	6300.00	378000.00	390600.00
11	Line Matrix Printer	Set	3	25950.00	77850.00	12600.00	2268000.00	2345850.00
12	MF Cobol runtime	Set	2	389300.00	778600.00	194700.00	23364000.00	24142600.00

Sl. No	Item Description in brief (Tech. Specs. as given in the Annexure-II)	UOM	Required Qty.	OTC per Unit	Total OTC for the Item (4)x(5)	Monthly Rent per Unit	60 months Rent for required quantity (4)x(7)x 60	Total Charge payable for 60 months rental period (6)+(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13	ORACLE Database software	Set	2	1080882.00	2161764.00	540950.00	64914000.00	67075764.00
14	Server infra & DB Mon SW	Set	2	36000.00	72000.00	18086.00	2170320.00	2242320.00
15	Other accessories	L.S.		154000.00	154000.00	56084.00	3365040.00	3519040.00
	Total for JOB				50,33,854.00		14,96,29,680.00	15,46,63,534.00

Chief Manager(MM)

For & on behalf of Bharat Coking Coal Ltd.

ANNEXURE—II (TOTAL 18 PAGES)**SPECIAL TERMS & CONDITIONS , SCOPE OF WORK BILL OF MATERIALS AND TECHNICAL REQUIREMENT AND SPECIFICATIONS****1.Scope of Work :**

- i. Supply, installation and commissioning of new Servers and related hardware / software devices specified in the Bill of Materials for the Job (BOM) at Main Data Centre (MDC) i.e. Central Site located at BCCL HQ, Koyla Nagar, Dhanbad (Jharkhand) and Near Data Centre (NDC) site at BCCL Kolkata office located at 6 Lyons Range, Kolkata (W.B.).
- ii. Procurement of required number of licenses in the name of Bharat Coking Coal Limited for all software items included in BOM.
- iii. Migration of existing operational modules of the CoalNet Application software package with associated database from the existing servers to the new servers. CoalNet Application package, which is presently running at different locations of BCCL, is developed as a three-tier application with (i) Oracle Database 9i database at Back End, (ii) Oracle Application Server 9i using Java, JSP, Report server (IDS) at Middle Tier and (iii) Internet Browser in Front End.
- iv. Migration of existing COBOL / ProCOBOL based application programs and associated data files to the new environment and to make them operational.
- v. Backing up of source files and associated databases / data files including historical data in respect of the existing applications presently running on the existing servers on to suitable devices and formats to ensure that same are transportable to the new environment and accessible by the new set of servers and devices as and when required.
- vi. To prepare operation and maintenance documentation for the above activities.
- vii. Deployment / posting of suitably qualified and experienced technical personnel at BCCL to accomplish the HW/SW installation and migration of Application Software within the scheduled completion date as per the requirement of this Project.
- viii. On-site comprehensive maintenance and updating of all software devices and licences through ATS and/or similar such facility for all software products supplied and installed during the period of contract.
- ix. On-site comprehensive maintenance of all hardware devices included in BOM during the period of contract i.e. 60 months from the date of successful installation and commissioning of all hardware devices included in BOM
- x. Two competent hardware engineers, one for MDC and one for NDC, to be posted at MDC and NDC as resident engineer, throughout the contract period, to manage all components of the supplied hardware (for Server, Storage & Storage Network) and software to provide on-site break fix support. Services of the engineers posted at MDC and NDC should be always available on-site during office hours from 9AM to 6 PM from Monday thru Saturday i.e. six days a week. For rest of the period of the day, the manpower can either be available on-site or contacted on telephone. During non-office hours the manpower should reach site within two hours. Minimum spares are to be kept by the successful bidder at BCCL site.
- xi. After installation of all hardware, software and networking components and migration of application software, the system should ensure that servers, operating systems, storage, tape libraries and other equipments' performance and responses are according to the definition as per scope of work and shall have expected minimum availability / uptime of 99% on monthly basis.

xii. For running the Coal Net application package and other application programs, the Vendor shall design, install and commission the hardware infrastructure including but not limited to the following.

- **The hardware shall be designed to meet the user workload and performance requirements and all servers workload instances shall be consolidated. The partition shall be created if required, with their own OS Kernel at BCCL HQ data centre and near data centre.**

- Servers for Coal Net and other Software like DNS (external & Internal), IPSec for VPN Support and Oracle 11g installation and database creation.

- SAN with SAN switches and required cabling

- Administrative Tools

- Tape Library

- Racks and other Peripherals

You shall provide the detailed solution architecture of the hardware infrastructure, and hardware sizing documents.

The factors / considerations required for solution architecture and hardware sizing are as under:

- All servers shall be optimally sized in a manner that they are able to meet the performance. Each physical server should be configured with 10% additional resources (CPU & Memory) over and above the requirement mentioned in the technical specification tables.
- The desired Recovery Time Objective shall be of maximum 420 Minutes.
- The desired Recovery Point Objective shall be of maximum 60 Minutes, prior day's backup may be considered.
- You shall provide in text and schematic diagrams the high availability configuration and explain the same in detail.
- Quality Assurance (QA) / Training Infrastructure will be needed for conducting tests and trainings during and post implementation.
- The concept of required server architecture is given hereunder for guidance only. The offered systems are required to be designed keeping in the mind the state of art of technology based on MPLS-VPN technology to enhance the computing, storage power and in reducing the single-point-of-failure. The systems have to be under high availability (cluster mode like Active-Active / Active-Passive) for database servers, application servers and also by creating Main Data Centre (MDC) and Near Data Centre (NDC) with duplication of SAN/Oracle Data and its application server.

A. Main Data Centre at Central Site (MDC)

The central site will be located at the BCCL Headquarter at Dhanbad and all users across BCCL HQ and all Areas/Units will access Coal Net application software through local or MPLS-VPN network. Central site will be designed for highest level of Performance & Availability. The central site will have 2 nos. mission critical RISC/EPIC Unix servers and the same will be designed in an N+1 Architecture. The N+1 Cluster will be formed using the OS clustering tools and associated high availability agents/scripts. One of the two servers will run the database instance and other one will run Application Instance thus maintaining 100% application availability and throughput in the event of any of the servers going down.

The central site will be powered with SAN Disk array configured in no single point of failure along with SAN Switches, a SAN connected Tape Library and backup software for online backup.

To reduce dependency on the data centre cooling system, a modular cooling rack shall be used in the central site for housing all servers & storage equipments including core switches, web & mail servers.

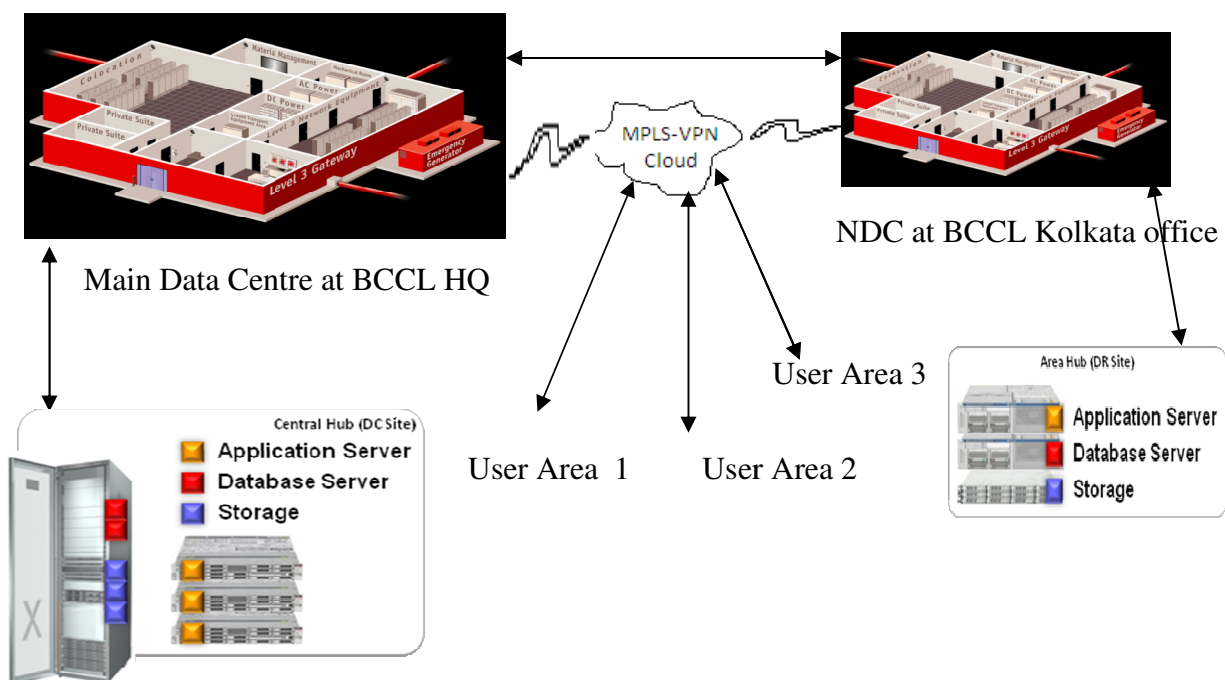
The database of the Main Data Centre at central site (MDC) will be replicated with the databases of the Near Data Centre site (NDC) to ensure continuous data availability even in the case of failure of the central site.

B. Near Data Center (NDC)

The NDC site will be at BCCL Kolkata office. The IT resources to be installed at NDC though this tender shall have to be in synchronization with the MDC at central site using Oracle Data Guard technology and in case the central site is not available for any hardware or network failure, the NDC site should be able to cater to the users' requirement. The application tier will also be synchronized either by system administration or using some automated tools.

Near Data Centre (NDC) site will have two numbers of RISC/EPIC Unix Servers which will act as Database & Application Server. There will be SAN storage also with LTO backup facility.

All the area offices will be connected to the MDC / NDC using MPLS-VPN.



WAN connectivity using MPLS-VPN cloud shown above shall be provided by BCCL.

- Webel should plan keeping in mind the following design criteria:

1. Scalability
2. Solution flexibility
3. Performance
4. Redundancy
5. Business Continuity
6. Investment protection

Webel must ensure that all arrangements for loading/unloading, movement of the equipment etc. shall be done by Webel. All equipment shall be designed and constructed to the highest standards as well as utilize the most recent and proven technology regarding reliability, ease of maintenance, safety of Supply.

Each module of the equipment shall be clearly labelled in English, according to its function. Each module shall include a serial number for identification purposes. All plugs, sockets and cabling shall be labelled in such a way that it eliminates any ambiguity in locating the matching connectors.

Webel shall be responsible for end-to-end implementation of connectivity of all the locations under this contract on turnkey basis and shall provide / supply any item(s) of latest make and model not included in the bill of materials, but required for successful implementation and commissioning of the system as well as its management. For such item(s), which are not quoted by Webel in the bid, but are required for successful completion of the project, the cost of any such additional items required will be borne by Webel.

ANNEXURE—II (Continued)**2.BILL OF MATERIALS FOR THE JOB (BOM)**

Item No.	Item Description in brief	Make and Model	As per Tech. Specifications indicated under Table No.	U.O.M	Required Quantity for MDC	Required Quantity for NDC
1	DB Server	Oracle/NetraT4-1(SPARC)	TS-1	Set	1	1
2	Application Server	Oracle/NetraT4-1(SPARC)	TS-1	Set	1	1
3	SAN storage*	EMC/VNX 5100 or Oracle/ST7320	TS-2	Set	1	1
4	SAN switch*	Brocade/Brocade 300 or EMC/EMC Connectrix DS 5100B	TS-3	Set	2	1
5	External LTO Tape library	For MDC- Oracle/SL48, For NDC-Oracle/SL24	TS-4 & TS-5	Set	1	1
6	Modular cooling rack for servers *	APC President/42U Cyber Rack with RDHX or APC President/42U Cyber Rack with PAC	TS-6, TS-6(A)	Set	1	1
7	Unified Threat Mgt. System	Elitecore Make Cyberoam CR 500ia	TS-7	Set	2	2
8	Backup server	Oracle/X4170 M3	TS-8	Set	1	-
9	Backup software	Oracle/Oracle Secure Backup	TS-9	Set	1	-
10	Administrative Console with KBD and mouse	Samsung Console with Logitech Keyboard and Logitech Mouse	-	Set	1	-
11	On-line UPS (10KVA with min. 3Hr backup)	Epoch/Amicomp10K VA	TS-11	Set	2	2
12	Line Matrix Printer	Wep/P7C 1500 Series	TS-10	Set	2	1

Item No.	Item Description in brief	Make and Model	As per Tech. Specifications indicated under Table No.	U.O.M	Required Quantity for MDC	Required Quantity for NDC
13	Network Switch - Cisco 24 port L3 managed switch	Cisco/C3560X-24T-S	TS-12	Set	4	2
14	MF Cobol runtime for the offered Server and O.S	Microfocus/Server Express+Server for Cobol(Runtime)Version 5.1WS6.	-	Set	1	1
15	Oracle Database Enterprise edition 11g - Processor / Core Perpetual	Oracle Database Enterprise edition-Processor Perpetual	-	Set	1	1
16	Real Application Cluster - processor Perpetual	Oracle Real Application Cluster-Processor Perpetual	-	Set	1	1
17	Diagnostic pack - processor perpetual	Oracle Diagnostic pack - processor perpetual	-	Set	1	1
18	Tunning Pack - Processor Perpetual	Oracle Tuning Pack-processor perpetual	-	Set	1	1
19	Web Logic Suite - Processor Perpetual	Oracle Web Logic Suite - Processor Perpetual	-	Set	1	1
20	Server infrastructure & Database Monitoring Software	Oracle/Oracle Enterprise Manager with OPS centre	TS-13	Set	1	1

*Either of the alternative make and model shall be supplied for the full quantity of the same make and model as indicated above.

Annexure-II Continued in next page

ANNEXURE—II (Continued)

3.TECHNICAL SPECIFICATIONS (MIN.) FROM TS-1 TO TS-13

TS-1 : Specification for Database, Application Servers for MDC & NDC	
Processor Type	64 Bit RISC/EPIC Latest Generation Processor from OEM and having minimum 150000tpc rating
No of Processors	Processors/Sockets should be populated appropriately for achieving required tpc performance as mentioned above. In case of the offered product is based on Cores, cores should be made available using OEM’s own virtualization technology
Processor Clock Speed	Minimum 1.6 GHz or higher
Processor Cache	2MB Cache/Core or higher or as per offered product
Memory	32 GB Memory Scalable up to 256GB Memory. Memory should be DDR3 or Equivalent
PCI-Express Slots	Minimum 2 PCI-Express Slots
Network Interface Ports with IPV6 Support	Minimum 4 * 10 Gigabit Ethernet Ports
FC-HBA Ports	2 * FC HBA Ports
Internal RAID	Internal RAID with RAID 1,0
Internal HDD	2 * 300GB SAS SFF HDD or higher
OS	64 Bit OEM Unix/Linux 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
Compilers	C, C++ Compilers should be provided on the offered OS
Form Factor	Blade/Rack

TS-2 : Specification For SAN Disk Storage	
Parameter	Specification
Controllers	The proposed SAN array shall be configured with dual controllers for redundancy with Minimum 2GB Cache or higher and 4 * 8 GB/s host ports per array
Offered Capacity	For Central Site - (BCCL-HQ) The proposed SAN array shall be configured with minimum 8 TB RAW Storage Space using 300/450GB or higher using 4GB/s FC or 6GB/s SAS Disks and configured under RAID-1 and should have scalable up to 28TB For Near Data Centre Site - The proposed SAN array shall be configured with minimum 2 TB RAW Storage Space using 300/450GB or higher using 4GB/s FC or 6GB/s SAS Disks and configured under RAID-1 and should have scalable up to 10TB
Maximum Usable Capacity	The storage system should be scalable up to minimum 10 TB of usable capacity under RAID-1 using 4GB/s FC or 6GB/s SAS Disks.
RAID Levels	The Proposed SAN Array should support RAID Levels 0, 1, 1/0, 5 & 6
Snapshots & Volume Clones	Offered Storage should support snapshots & volume clones

TS-3 : Specification For SAN Switch	
Parameter	Specification
Performance	8 GBPS Fibre Channel
Ports	24 Fibre Channel Range, depending on model
Aggregate Switch Bandwidth	100 GBPS or Higher
Protocol Support	All protocols including Fibre Channel
Availability	No single point of failure. Ports on demand with no downtime
Media Types	No single point of failure. Ports on demand with no downtime
Management	SAN Network Advisor or Equivalent.
Models Available	Full Fabric
Required Software	Advanced Fabric OS, Advanced Zoning, Web Tools
Form Factor	1U

TS-4 : Specification for Tape Library (for Main Data Centre at HQ)	
Parameter	Specification
Drive Type	LTO5 or higher and should be connected to SAN
No of Drives	2
No of Slots	Minimum 40
Power Supplies	Redundant Power Supplies
Media Supply	40 * Bar-coded data cartridges & 2 * Cleaning Cartridges and 40 data cartridges extra
Form factor	Rack-mount

TS-5 : Specification for External Tape Library (For Near Data Centre)	
Parameter	Specification
Drive Type	LTO5 or equivalent and should be connected to SAN
No. Of Drives	1 or higher
Drive Interface	SAS
Media Supply	20 * Bar-coded data cartridges & 2 * Cleaning Cartridges
Form factor	Rack-mount

TS-6 : Specification for Modular Cooling Rack	
Parameter	Specification
Rack Height	42U
Cooling Capacity	Up to 30KW
Heat Exchanger	High air flow heat exchanger with bi-directional air distribution
Management & Monitoring	Environmental Monitor with SNMP integration
Power Source	Power Input Redundancy for dual power source
Site Preparation	Bidder has to prepare site for mounting the Cool Rack (Server Room Shall be provided by BCCL with UPS and General/Generator Power Supply)

S-6 (A) : Specification for Blade Enclosure (if offered product is blades)		
Parameter		Specification
Blade/Rack Chassis		Solution to house the required number of Blade servers in smallest number of enclosures, occupying a max of 10U rack height per enclosure or as per OEM specifications.
		Same enclosure should support Intel Xeon, AMD Opteron and RISC/EPIC Blade. Enclosure should also support Unix, Linux and Windows Operating environment.
		Should support Hot Pluggable & Redundant Management Modules.
		Should provide a highly reliable and high performance mid-plane/back-plane design in the Blade enclosure. Should provide detailed technical information.
		Should be able to accommodate the Blade servers mentioned in the sections below in the proposed Blade enclosures.
		Support simultaneous remote access for different servers in the enclosure.
LAN Interconnect Switch with IPV6 Support		Two or more network ports from each of the servers in the enclosure should be available on 10 Gigabit LAN switch blade module. Each switch shall have minimum 2 * 10GBE uplink ports for external connectivity
SAN Interconnect Switch		Two numbers of 8GB/s SAN Switches blade modules. Each switch should have minimum 4 * 8GB/s ports for Blade Server Connectivity and 4 * 8GB/s ports for External Storage Connectivity
MAC Address & WWN Management		Blade Enclosure should preferably support management & deployment of MAC Addresses of NIC Adapters and WWN No of FC adapters at the chassis level so that replacement of a server blade does not involve Network & SAN configuration effort at the blade level
Power Supply		The enclosure should be populated fully with power supplies of the highest capacity & energy efficiency available with the vendor. Power supplies should support N+N as well as N+1 redundancy configuration, where N is greater than 1. Guaranteeing complete availability even on failure of any 2 power supplies across the enclosure.
Cooling		Each blade enclosure should have a cooling subsystem consisting of redundant hot pluggable fans or blowers enabled with technologies for improved power consumption and acoustics.
Redundancy		Mechanical Devices such as Hard Disks, Fans and Power supplies should be completely Hot Swappable and Redundant to ensure High Availability.
System Software		Management/controlling software have to be from the same OEM.
Remote Management		Must provide a remote management functionality to operate the 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.
		Must have Real-time Virtual KVM functionality and be able to perform a remote Power sequence. Must provide both Java & Java-free browsing options.
Power Management		Must be able to show the actual power usage and actual thermal measurement data of the servers.

TS-7 : Specification of Unified Threat Management with 19” wall mounted Rack.	
Parameter	Specification
Interfaces	6: 10/100/1000 and 1:10/100
DMZs	2
Application Proxies	HTTP, HTTPS, SMTP, FTP, DNS, TCP, POP3, SIP, H.323, TFTP
Intrusion Prevention	DOS, DDOS, PAD, port scanning, spoofing attacks, address space probes, etc.
Firewall Throughput	1.0 GBPS or higher
VPN Throughput	300MBPS or higher
Branch Office VPN with optional IPsec	50 or higher
VPN Authentication	YES
User Authentication	Local database, LDAP server, Radius, Active Directory
NAT	Static, dynamic, one to one NAT
WAN Failover	Yes
High Availability	Active/Active or Active/Passive
Traffic Management/QOS	Yes
VoIP (SIP and H.323)	Yes
Spam Blocker with virus outbreak detection	Yes
Gateway Antivirus/IPS	Yes
Web Blocker with HTTPS URL filtering	Yes
Application Control/Security	Yes
Subscription for Gateway Level Antivirus and Appliance	Shall be at for 6 Years
IPV6 Support	Yes

TS-8 : Specification for Backup Server	
Parameter	Specification
Processor	2 x Intel Xeon Quad core @ 2.4 GHz
Memory	32 GB RAM
SAS Card	External SAS Controller to connect External Back up Drive
Hard Drive	4*300 GB SAS HDD
Optical Drive	Internal DVD-RW
Ethernet Card	4*10/100/1000 NIC
Power Supply	Redundant Power Supply
OS	Compatible OS as per the offered product of Backup Software

TS-9 : Specification for BACKUP SOFTWARE	
I	The proposed backup solution shall be offered with <u>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.</u>
II	The proposed backup solution shall be offered with licenses for Unix, Linux and windows system backup along with IPV6 Support
III	The proposed backup solution shall be offered with licenses for online backup of Oracle Database
IV	The proposed Backup Solution Software shall support inbuilt Java / Web based GUI for centralized management of backup domain
V	Backup Software shall support encryption and all encryption keys shall be stored on to backup server for effective management
VI	Supports advanced Disk staging
VII	The proposed Backup Solution shall support in-built media management and support cross platform Device & Media sharing in SAN environment. It shall provide a centralized scratched pool to ensuring backups never fail for media.
VIII	Backup Software shall support Synthetic backup so that Full backup can be constructed directly from the disk based incremental backups
IX	Backup Software shall support to rebuild the Backup Database/Catalog from tapes in the event of catalog loss/corruption.
X	The proposed Backup Software shall offer OPEN File Support for windows
XI	The proposed Backup Solution has certified “Hot-Online” backup solution for different type of Databases such as Oracle, MS SQL, Sybase etc
XII	The Proposed backup solution shall provide granularity of single file restore
XIII	The Proposed backup solution shall be designed in such a fashion so that every client/server in a SAN can share the robotic
XIV	Backup Solution shall be able to copy data across firewall
XV	Backup Solution shall support automatic skipping of backup during holidays

TS-10 : Specification for Line Matrix Printer	
Description	Specification
Line Printer	With Stand and Paper Trays
Printing Technology	Line Impact Dot Matrix
Speed	1500 LPM or more (Text)
Character Pitch	15 CPI or more
Line Pitch	10 LPI or more
Paper Handling	Bottom Feed, Continuous, Fan folded, Edge perforation, Variable width from 4” to 16” or better
No. of copies	Up to 5 Parts or more
Drivers	Microsoft Windows XP Professional, Vista Business, Windows 7 professional, All flavours of Unix / Linux
Interface	Parallel , Ethernet 10/100 Base T or higher
Cables	Required cables for connecting to PC or LAN point, power cables
Consumables	Min. 2 sets of ribbon spools / cartridges

TS-11: Specification for 10.0 KVA UPS with 3 Hours Battery Backup	
Description	Specification
Input	Normal AC Input Voltage Single Phase 230VAC+ Neutral + Earth
Frequency Range	50/60-Hz 46-54HZ
Line Low/High Transfer	160 V AC – 270 V AC
Output(Inverter)	220VAC / 230VAC / 240VAC
Voltage Regulation	±1%
Frequency	50Hz/60Hz ±0.1%
Output Waveform	Pure Sine Wave
Harmonic Distortion (THD)	<= 2% (linear load) / <= 5% (Non linear load)
Power Factor	0.7
Bypass	Static Bypass
Battery	
DC Volts	48VDC-144VDC
Charging Current	10-20Amps
Battery Type	Sealed Maintenance Free
Communication Interface	RS 232 Port for software interface or USB
Display	LCD with Back Light
Standard	AC Input Voltage, AC Input Frequency, Battery Voltage, AC Output Voltage, AC Output Frequency, AC Output Load %, Temperature
	UPS Status (Mains Fail, Individual Phase Fail, Battery Low, DC high, Overload with Shut-Down Time, Output Low, Output High, Over Temperature), Battery Charging
Operating Temperature	0 to 45 Deg C
Humidity	Up to 95% RH Non Condensing
Noise level	<60 DB
Indication	Mains ON, Inverter ON / OFF / Faulty, Battery Level, Static Bypass ON, Load Level, Over Temperature
Audible Alarm	Main Failure Alarm, Low Battery Alarm, DC High, Inverter Fault, Overload and Load on Bypass
Protection	Advanced Electronic protection for device safety backed with MCBs / Soft start feature for rectifier and inverter, built in overload protection output short circuit protection, inverter over temperature
Auto Restart	Yes

TS-12 : Specification of CISCO Network L3 Switches	
Parameter	Specification
Model	CISCO-3560-E or higher of same make
Port Speed	10/100/1000
No of Ports	24 and SFP ports
Fiber Uplinks	1 or 2
IPV6	IPv6 features such as address auto configuration, embedded IP Security (IPSec), routing optimized for mobile devices, and Duplicate Address Detection
SSHV2/SNMP	Secure Shell Protocol Version 2 (SSHv2) and Simple Network Management Protocol Version 3 (SNMPv3) to provide network security by encrypting administrator
Access Control List	Access control lists (ACLs) to restrict access to sensitive portions of the network by denying packets based on source and destination MAC addresses, IP addresses, or TCP/UDP ports.

TS-13 : Specification for SERVER INFRASTRUCTURE & DATABASE monitoring SOFTWARE	
I	EMS must support the high availability concept, which enables switching management responsibility from one management centre to another in case of system failure. This eliminates single points of failure in the management system.
II	Should provide in-built correlation to reduce the number of messages presented to the operators and to determine the root cause.
III	The System Should have automated service discovery, policy deployment and actions to enable busy IT personnel to focus on more strategic initiatives and manage business-critical application services from the end-user perspective, and to be immediately aware of the business impact of lower level component failures or performance degradations.
IV	The discovered services should be displayed in service dependency maps automatically for consolidating different IT management views into a single work-bench, which ensures the health of end-to-end IT services across IT infrastructure and domains.
V	Centralized view for agent-based and agent-less monitoring managed from one central console. EMS must have its native database and capability to use external database like MS-SQL, Oracle etc.
VI	The system should have context-based analysis and forecasting based on performance data with automated policy deployment with detailed, intelligent monitoring of performance and availability data collection
VII	Should support Oracle hosting on various O.S.; HP-UX, HP Tru64 Unix, Sun Solaris, IBM AIX, Microsoft Windows, Red Hat Linux, and SuSE Linux
VIII	Should offer auto-discovery and visualization of the Oracle service topology, comprising more than four object types and their dependencies.
IX	Database Table and index performance, including number of tables cached and full table scan rate and Process monitors for all the Oracle database processes (e.g., Listener, LGWR, DBWR, PMON, ARCH, SMON, TRWR, RECO, SNPx, and LCKx)
X	SQL Query Monitoring, such as identifying top SQL statements in terms of number of fetches per execution, number of rows scanned per execution, elapsed time per execution, CPU time per execution, performing full table scan, and more
XI	Oracle RAC Monitoring, such as identifying Data Blocks in terms of got corrupted during interconnect, got lost during interconnect
XII	Oracle Data Guard Monitoring, such as log transport services, log apply services, and standby destination errors
XIII	Oracle Advanced Replication Monitoring, such as the number of failed/broken DBMS jobs, deferred transactions, and administrative requests.

4.SCOPE OF SUPPLY:

- a) You shall supply and commission all hardware, network equipments and software as per specifications mentioned above.
- b) You must not supply any equipment that is likely to be declared end of sale within six years from the date of supply. You would be required to replace all such equipment with latest and at least of equivalent configuration.
- c) You shall be responsible for demonstrating and assuring end-to-end implementation of connectivity of all the locations under this contract on turn-key basis and shall provide / supply any item(s) of latest make and model not included in the bill of materials, but

required for successful implementation and commissioning of the system as well as its management. The cost of all such item(s), which have not been quoted by you in the bid, but are required for successful completion of the project, must be supplied by you at no extra cost and will not be considered as an excuse for untimely completion of installation and commissioning.

- d) You shall be responsible for timely supply of all the installation material / accessories/ consumables necessary for installation of the systems.
- e) You shall provide patches and updates of Firmware free of cost during the entire contract period.

5. SCOPE OF MAINTENANCE:

Comprehensive maintenance work is to be done by you or by your authorised service provider. The Scope of Maintenance work will be as under as applicable to:

- a) To carry out all routine schedule maintenance job at BCCL HQ and other locations where the machines / equipment / software supplied by you are to be installed.
- b) Providing all labour, all spare parts, all patches and upgrades of the firmware and software items, inspection and supervision services related to the above.
- c) Maintaining the system to achieve guaranteed availability as per Clause given below.
- d) The cost of maintenance work will include cost of all spares (landed-price basis), labour charges and all other charges on as and when required basis. No separate payment will be made towards the cost of maintenance as the same is a part of the monthly rental charges, payable on quarterly basis against invoice / bill raised for that purpose.
- e) All supplied software which includes firmware, operating system pack, other utilities, Oracle Database, Real Application Cluster, Diagnostic pack, Tuning pack, web-logic suite, backup software, anti-virus total security pack, drivers, etc. supplied by you to be activated, registered and updated at all installed locations by you. All service packs, patches, updates bug fixes, related with the operating system and other software covered under the bill of materials for this job, are to be supplied by you without any additional cost, if required, during the full period of the rental contract.
- f) For all hardware & software, maintenance services and software up-gradation shall be provided by you during the entire rental period free of cost.
- g) **the response time to attend a maintenance complaint / breakdown call at site in case of equipment** and/or software installed at MDC and/or NDC shall not exceed 60 minutes. The supplier shall, thus, respond and commence repair work within 60 minutes of being notified. In case there is any failure with Hardware components, the same may be made good/rectified within 2 to 3 hours for which sufficient quantity of spares is to be maintained at site by the supplier / service provider. All the hardware, software and other devices supplied and installed at MDC and/or NDC shall be maintained by you in a manner, which ensures that minimum 99% availability is achieved.
- h) The periodicity of preventive maintenance shall be decided by you and BCCL and it should not be less than once in a month and shall be carried out during normal working days.
- i) All spare parts and components, including print-head for Dot Matrix Printers, Hammer Bank of Line Matrix Printers and batteries for UPS, have to be supplied

and installed free of cost at site during the period of contract. Only printer ribbons, ink cartridges, toner cartridges shall only be considered as consumables.

6. **GUARANTEED AVAILABILITY & PENALTY CLAUSE:**

Availability Provisions for the equipment / software supplied installed and maintained by the contractor:

- (a) You shall guarantee that all equipment / software supplied pursuant to this contract and installed and maintained at MDC and NDC by you shall be available for use of BCCL and shall meet the performance criteria in accordance with the terms & conditions of the guaranteed availability as outlines below.
- (b) The servers and other hardware/software installed at MDC and NDC are expected to be up and available to the users round the clock i.e. on 24x7 basis except for the scheduled maintenance, the time and duration of which shall be decided by the mutual consent of the contractor and General Manager (Systems), BCCL or their authorized representatives. If any of the hardware/software supplied and installed at MDC and/or NDC is under breakdown resulting in non-availability of servers to the end users, the entire system shall be treated as under break-down. The guaranteed availability for the entire system at MDC and NDC shall not be less than 99% calculated on monthly average basis and in no case shall fall below 75%. Non-availability of servers to the end-users on account of failure of MPLS link and/or failure of mains power supply continuously for more than 2 hours shall not be considered during computation of monthly availability. General Manager (Systems) or his authorized representative shall be the certifying authority for the purpose of ascertaining the total break-down hours in a month.

Availability during the month shall be calculated as follows:

$$\% \text{ Monthly Availability} = \frac{24 \times N - \text{TBD}}{24 \times N} \times 100$$

where N = No. of days in a month,
TBD = Sum total of breakdown hours in a month.

- (c) If the availability falls below the guaranteed monthly availability (99%), there will be pro-rata deduction in the monthly rental as penalty. A penal charge amounting to 5% of such penalty will also be imposed and deducted from the monthly rental.

$$\begin{aligned} \text{Thus, Penalty} &= \frac{(99 - \% \text{ Monthly Availability})}{99} \times \text{Monthly rent of the system} \\ \text{Penal Charge} &= 0.05 \times \text{Penalty} \\ \text{Monthly charge payable} &= \text{Monthly rental} - (\text{Penalty} + \text{Penal Charge}) \end{aligned}$$

- (d) If the system is not available for use for more than 3 consecutive days an additional penalty amounting to 20% of the monthly rental shall be imposed.
- (e) No bonus or additional sum shall be payable to the vendor if the monthly availability is more than the guaranteed availability as mentioned above.
- (f) The entire system will be treated under breakdown if any server, UPS, monitoring console, network switches, and / or line printers, located at MDC and/or NDC, is/are under breakdown or malfunctioning.

- (g) If for reasons, other than faulty power supply or failure of MPLS link, the monthly availability falls below 99% continuously for a period of two months or more, the penalty will be double the rate as calculated under sub-clause (c) above.
- (h) In case the monthly availability falls below 75% in a month rental, charges for that particular month will not be payable.

7.UNDER TAKING OF AUTHENTICITY: You shall submit Undertaking of Authenticity at the time of supply along with the bills.

You shall also furnish list of Serial Number of all Certificates of Authenticity (COAs) of Operating System Licenses which are pre-loaded, prior to dispatch of the machines to the consignee.

8.INSPECTION: The inspection shall be carried out by GM (Systems), BCCL or his authorised representative after receipt of the ordered supplies. BCCL shall have the right to inspect and/or to test the material to ensure their conformity with the contract and in case any inspected/tested goods fail to perform to the specifications, the inspecting authority may reject them and the supplier shall either replace the rejected goods or make alteration necessary to meet the specifications free of cost.

9.INSURANCE: Comprehensive insurance of each material/equipment supplied by you is to be done by you and cost of insurance of the material/equipment during transit and during operation of the contract will be on your account. You will provide documentary evidence to this effect within one month from the date of successful installation and acceptance of the system.

10.Patent Rights: You shall indemnify the BCCL against all 3rd party claims of software piracy & infringement of intellectual propriety rights. In the event of any claim asserted by a third party of infringement of copyright, patent, trademark or industrial design rights arising from the use of the Goods and services or any part thereof in India, You shall act expeditiously to extinguish such claim. If you fail to comply and BCCL is compelled to pay compensation to a third party resulting from such infringement, you shall be responsible for the compensation including all expenses, court costs and lawyer fees to BCCL.

11.Technical Documentation: The Technical documentation involving detailed instruction for operation and maintenance is to be delivered with all equipment supplied at no extra cost. The language of the documentation should be English. Unless and otherwise agreed, the goods and services shall not be considered to be complete for the purpose of taking over until such manuals have been supplied to the BCCL.

You shall be fully responsible for the successful virus free functioning by providing a suitable anti-virus software licensed for regular updates for the entire contract period and integrated operations of the system as a whole and the omission of any item/component in this document shall not be sufficient reason for non-performance of the system at a future date. You should provide any additional item/s, which you feel, are essential for the trouble-free functioning of the system during the entire contract period.

12.ON SITE SUPPORT: The contractor will maintain all items of Hardware, Software, and other equipment devices which would be supplied, installed and commissioned by them during the entire period of contract i.e. 60 months and post adequate number of technical personnel at site to provide on-site support in respect of all Hardware, Software, and other devices supplied, installed and commissioned by the contractor as per the scope of this contract.

13. As Certificate furnished by you from the respective OEMs alongwith your bid in respect of IPV6 compliance, You must ensure that all the make and model of the each item of computer and networking devices, hardware and/or software item is IPV6 complaint.

14. Originality Certificate: As Certificate furnished by you alongwith your bid in respect of the Originality, You must ensure the following in respect of all the make and model of the supplied hardware/software item and accessories

a) All offered items and their components / parts / assemblies / sub-assemblies / software etc which shall be supplied to BCCL against the order, shall be original and new from the respective OEMs of the items and that no refurbished / duplicate / second hand components / parts / assemblies / sub-assemblies / software shall be supplied.

b) All the offered software, with requisite number of user licenses as may be necessary, shall be supplied with duly authorised license certificate in the name of Bharat Coking Coal Limited from the respective OEM and also that these software shall be sourced from the original manufacturer / developer of the software product or their authorised agencies. The contractor shall provide all necessary updates and/or patches as and when released by the respective OEM of the software product during the entire period of contact i.e. 60 months, at no additional cost.

15. TECHNICAL SUPPORT FROM OEMs: As per the declaration from the OEMs (of all the offered software products, which include ORACLE products and all the offered hardware products, which include Servers, PCs, Networking devices, UPS printers, etc) submitted by you alongwith the bid, the respective OEMs shall assure that necessary technical / maintenance support for all their software/hardware products supplied by you against this order for installation shall be provided by OEM either directly or through You during the entire rental period.

Chief Manager(MM)

For & on behalf of Bharat Coking Coal Ltd.

WEBEL TECHNOLOGY LIMITED

(A Govt. of West Bengal Undertaking)
AN ISO 9001 : 2008 Company
Plot-5, Block-BP, Sector-V, Salt Lake City, Kolkata-700 091

Tel : 2367-3403-06
Fax : 91-33-2367-9418
Visit us at : www.wtl.co.in

ANNEXURE- D

Format for Bank Details for Electronic Payment

To
M/s Bharat Coking Coal Limited,
Koyla Bhawan, Koyla Nagar,
Dhanbad – 826005

Sub: Authorisation for making all payment through ELECTRONIC FUND TRANSFER SYSTEM/RTGS/CBS/INTRA BANK TRANSFER.

Dear Sir,

We hereby authorize Bharat Coking Coal Limited to make all our payments against our bills, Refund of Earnest Money Deposit and Security Deposit, through Electronic Fund Transfer system/RTGS/CBS/Intra Bank Transfer. The details for facilitating the payments are given below.

(To be filled in Capital Letters)

1.	Name of beneficiary	WEBEL TECHNOLOGY LIMITED
2.	Address (with PIC code)	PLOT- 5, BLOCK- BP, SECTOR – V, SALT LAKE CITY, KOLKATA – 700 091
3.	Telephone No. (With STD Code)	033-2367-3403-06
4.	Bank Particulars	
a)	Bank Name	STATE BANK OF INDIA
b)	Bank Telephone No. (with STD code)	(033)23374598, 23581612
c)	Branch Bane	SALT LAKE ELECTRONIC COMPLEX
d)	Bank Branch Code	09985
e)	Branch Address (with PIN code)	XI, 8/1, EP BLOCK, SALT LAKE CITY, SECTOR – V, KOLKATA -700 091
g)	Bank Fax No. (with STD code)	033/2357-5190
h)	11 digit IFSC code of beneficiary branch	SBIN0009985
i)	Bank Account Number	10224931533
j)	Bank Account Type (Tick One)	Savings/Current/Cash Credit/other (Pl specify)
5.	Permanent Account Number (PAN)	AAACW4201G

Registered Office : Webel Bhavan, Block-EP & GP, Sector-V, Salt Lake City, Kolkata-700 091

FORMAT OF BANK GUARANTEE FOR SECURITY DEPOSIT

M/s. Bharat Coking Coal Ltd. Koyla Bhawan ,Koyla Nagar,Dhanbad – 826005

In consideration of M/s Bharat Coking Coal Ltd. having its office at Koyla Bhawan, Koyla Nagar, Dhanbad hereinafter called “the Purchaser” (which expression shall unless repugnant to the subject or context including its successors and assigns) having agreed under the terms and condition of Contract No. dated made between M/s a Company having its office at (hereinafter called the supplier in connection with supply of hereinafter called the “said Contract” to accept a Deed of Guarantee as herein provided for Rs. in lieu of the security deposit to be made by the supplier for their due fulfillment of the terms contained in the said Contract, we, the Bank Limited (hereinafter referred to as the said Bank having its office at do hereby undertake and agree to indemnify and keep indemnified that Purchaser from time to time the extent of Rs.(Rupees :) against any loss. Damage caused charges and expenses caused to or suffered by or that may be caused to suffered by Purchaser by reason of any breach or breaches by the said supplier or any of the terms and conditions contained in the said Contract and to unconditionally pay the amount claimed by the Purchaser on demand and without demur to the extent aforesaid.

We, the Bank Limited do hereby agree that any demand made by Purchaser on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. We shall not withhold the payment on the ground that the supplier has disputed its liability to pay or has disputed the quantum of amount or that any legal proceeding is pending between the Purchaser and the Supplier regarding the claim. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. We, the Bank Limited do further agree Guarantee herein contained shall come into force from the date hereof and shall remain in full force and effect up to Unless demand or claim under this Guarantee is made on us in writing on or before we shall be discharged of all liabilities under this Guarantee thereafter.

We, the Bank Limited further agree with the Purchaser that the Purchaser, shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend the time of delivery of the specified items in the Contract from time to time or to postpone for any time or from time to time any of the powers exercisable by the Purchaser against the said supplier and to forebear or enforce any of the terms and conditions relating to the said contract we shall not be relieved from our liability by the reason or any such variations or extension being granted to the said Supplier or for any forbearance act or omission on the part of the Purchaser or any indulgence by the Purchaser to the said Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us the Bank further agrees that in case this Guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above. The Bank shall pay to the Purchaser the said sum of or such lesser sum as may then be due to the Purchaser and as the Purchaser may demand.

We, the Bank Limited lastly undertakes not to revoke this Guarantee during this currency except with the previous consent of the Purchaser in writing.

The Bank has under its constitution power, to give this Guarantee and Mr. Manager who has signed it on behalf of the Bank has authority to do so.

This Bank Guarantee will not be discharged due to the change in the constitution of the Bank or the Supplier.

Datedday of

Signature of the authorized person

For Bank Limited.

For and on behalf of the Bank

FORMAT OF PERFORMANCE BANK GUARANTEE

1. Messers ----- a company having its office at -----
-----hereinafter called the Seller has entered into a Contract No.-----
-----dt.----- (hereinafter called the said Contract) with Bharat Coking Coal Limited
(hereinafter called , the Purchaser) to supply equipment on the terms and conditions in the said Contract.
It has been agreed that hundred percentage(100%) payment of the value of the equipment will be made to the
seller in the terms of the said Contract on the seller furnishing to the Purchaser a Bank Guarantee for the sum of -----
----- equivalent to 10 % of the value of each equipment and accessories dispatched by the seller as security for
the due and faithful performance of the terms of the said contract and against any loss or damage caused to or would
be caused to or suffered by the purchaser by reason of any of the terms or conditions contained in the said contract.
The----- Bank having its office at ----- has at the request of seller agreed to give the
guarantee herein after contained.
2. We,----- Bank Ltd. do hereby undertake to pay the amounts due and payable under this
guarantee without any demur merely on a demand from the purchaser stating that the amount claimed is due by way
of loss or damage caused to or would be caused to or suffered by the purchaser by reason of any breach by the said
seller of any of the terms or conditions contained in the said contract or by reason of the seller's failure to perform
the said contract. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by
the Bank under this guarantee. We shall not withhold the payment on the ground that the seller has disputed its
liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is
pending between purchase and the seller regarding the claim. However , our liability under this guarantee shall be
restricted to an amount not exceeding -----.
3. We,----- Bank Ltd., further agree that the guarantee herein contained shall come into force
from the date hereof and shall remain in full force and effect during the period that would be taken for the
performance of the said contract and that it shall continue to be enforceable till all the dues of the purchase under or
by virtue of the said contract have been fully paid and its claim satisfied or purchase certified that the terms and
conditions of the said contract have been fully and properly carried out by the said seller and accordingly discharged
the guarantee .Unless a demand or claim under this guarantee is made on us in writing on or before the -----
-(date to be given-----months from the date of Bank Guarantee) we shall be discharged from all liability
under this guarantee thereafter.
4. We., Bank Ltd. further agree with the purchaser ,that the purchaser , shall have the fullest liberty without our
consent and without affecting in any manner no obligations hereunder to vary any of the terms and conditions of the
said contract or to extend time of performance by the said seller(s) from time to time or to postpone for any time or
from time to time any of the powers exercisable by the purchaser , against the said seller and to forbear or enforce
any of the terms and conditions relating to the said contract and we shall not be relived from our liability by reason
or any such variation or extension being granted to the said seller or for any forbearance act or omission on the part
of the purchaser , or any indulgence by the purchaser to the said seller by any such matter or thing whatsoever which
under the law relating to sureties would be for this provision have effect of an relieving us. The Bank further agrees
that in case this guarantee is required for a longer period and it is not extended by the bank beyond the period
specified above , the bank shall pay to this purchaser the said sum of ----- or such lesser sum as may
than be due the purchaser and as the purchaser may demand.
5. We ,----- Bank Ltd. lastly undertake not to revoke this guarantee during its currency except with the
previous consent of the purchaser , in writing.
6. The Bank has under its constitution power to give this guarantee and Mr.-----Manager , who has
signed it on behalf of the Bank has authority to do so.
7. THIS BANK GUARANTEE WILL NOT BE DISCHARGED DUE TO THE CHANGE IN THE
CONSTITUTION OF THE BANK OR THE CONTRACTOR.
Date----- Day of -----20

For ----- Bank Limited

Signature of the authorised person
for and on behalf of the Bank