

ICT@SCHOOL PROJECT AGREEMENT

This **ICT@SCHOOL PROJECT AGREEMENT** hereinafter referred to as “Agreement” is made on this 4th day of May 2010

BY AND BETWEEN

Bihar State Electronics Development Corporation Limited, company incorporated under the Companies Act, 1956, having its registered office at BSEDC Beltron Bhawan, Shastri Nagar, Patna, Bihar, Pin Code-800023 represented by its General Manager, Mr. Rakesh Mohan, hereinafter referred to as BSEDC (which term or expression, unless excluded by or repugnant to the subject or context shall mean and include its successors-in-office and assigns) of the **FIRST PART**.

AND

M/s Educomp Solutions Ltd, a listed public limited company incorporated under the provision of Companies Act, 1956 and having its registered office at 1211, Padma Tower 1, 5, Rajendar Place, New Delhi 110008 India, represented here in by Mr. Pranab Kumar Bose, Vice President, (hereinafter referred to as the “**Contractor**”), which term or expression, unless excluded by or repugnant to the subject or context shall mean and include its successors and assigns) of the **SECOND PART**.

WHEREAS:

- A. The **Contractor** has bid for the supply installation and maintenance of the Infrastructure on Build, Own, Operate, and Transfer Basis (BOOT) for a period of three years to establish Computer Lab, Hardware Networking equipment, System Application Software. Uninterrupted Power Supply and trainer etc of ICT education project in Schools across rural and urban areas of the State of Bihar.
- B. The BSEDC had decided to award work to the **Contractor**.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements hereinafter contained, CONTRACTOR and BSEDC have agreed and do hereby agree as follows.

ARTICLE 1 – DEFINITIONS

- 1.1) Unless otherwise clearly required by the context the following terms as used in this Agreement shall have the respective meaning as defined below
 - a. **“Acceptance Test”** means the test conducted by the Designated Agency in accordance with this Agreement.
 - b. **“Centre”** means the training centre located in a School.
 - c. **“Designated Agency/ third party auditor”** means Bihar e-Governance Service & Technologies Limited (BeST).
 - d. **“Effective Date”** means the date of execution of this Agreement.
 - e. **“Parties”** means BSEDC and the CONTRACTOR collectively and partly means either BSEDC or the CONTRACTOR as the context may demand.
 - f. **“Quarterly Guaranteed Revenue”** or “QGR” means the amount payable to the CONTRACTOR for the Services rendered by the CONTRACTOR in accordance with this Agreement.
 - g. **“School”** means a school or directorate enumerated in Schedule 1. This Schedule may be altered by adding or deleting any schools thereto or there from by mutual written agreement of the Parties.
 - h. **“Services”** means the supply operation, maintenance and the provision of services as specified in Schedule 5. This Schedule may be altered by adding or deleting any schools thereto or there from by mutual written agreement of the Parties.
 - i. **“Supply”** means the supply of equipments as specified in Schedule 4. This Schedule may be altered by adding or deleting any schools thereto or there from by mutual written agreement of the Parties.
 - j. **“State designated committee”** means a committee constituted by state government department/HRD Department/ IT Department for the sole purpose of IT Trainer

- 1.2) In this Agreement unless the context demands otherwise
 - a. Words used in singular shall include the plural and vice-versa.
 - b. Words denotive of one gender shall denote the other gender.
 - c. a person include a legal or natural person or a partnership firm trust, government or local authority and shall also include the legal representative or successor in interest of such person.

ARTICLE 2- CONDITIONS PRECEDENT & PERFORMANCE GUARANTEE

- a. Prior to the execution of this Agreement the CONTRACTOR shall give Detailed Project Report for acceptance by BSEDC
- b. Within 15 days of the Effective Date, unless furnished earlier, the CONTRACTOR shall furnish performance guarantee to BSEDC, in the proforma at Appendix 14 of Tender Document for an amount equal to 5% of the arithmetic sum of 3 years of Quarterly Guaranteed Revenue. The performance guarantee shall be valid initially for a minimum period of one year of commencing with the Effective Date.
- c. In case the CONTRACTOR fails to furnish performance guarantee as hereinbefore BSEDC after giving sufficient opportunity to CONTRACTOR may terminate the Agreement.
- d. The performance guarantee shall be renewed by the CONTRACTOR year by year for the term of this Agreement at least 30 days before expiry date of the performance guarantee.
- e. The performance guarantee amount for each renewal shall be calculated on basis of Quarterly Guaranteed Revenue for the remaining years of operation under this Agreement subject to minimum performance guarantee based on sum of two years Quarterly Guaranteed Revenue.
- f. The CONTRACTOR's failure to renew performance guarantee shall constitute material breach of this Agreement.

ARTICLE 3- OBLIGATIONS OF THE PARTIES

- A. The Parties shall discharge their obligations in accordance with the Responsibility Matrix attached at Schedule 2 to the Agreement
- B. The Designated Agency shall

Monitor the Supplies

- I. Monitor the provision of Services
- II. Conduct the Acceptance Test in accordance with this Agreement

III. Performance Audit of the Services provided by the CONTRACTOR

- C. The Designated Agency shall be responsible for verification and validation of all invoices submitted by the CONTRACTOR and will recommend the eligible payment in accordance with this Agreement.
- D. The cost of printing books and other course material based on the syllabus approved by the Government of Bihar or any other authorized agency to be used in providing Services is to be decided by BSEDC

ARTICLE 4- SITE PREPARATION AND SITE SURVEY

- A. BSEDC agrees to arrange necessary
 - I. Minimum constructed rooms/ space to establish the ICT Lab.
 - II. Clearances, which shall enable the CONTRACTOR to undertake electrical wiring, earthing, and other activities necessary for the Services
- B. The CONTRACTOR shall not use the Schools for any purpose other than for the Services in accordance with this Agreement.

ARTICLE 5-ACCEPTANCE TEST

- A. The Designated Agency shall conduct the Acceptance Test in accordance with the deliverables mention in the RFP documents; the format for Acceptance Test will be design within 30 days after signing of this MSA.
- B. The Designated Agency shall conduct the Acceptance Test only after CONTRACTOR has completed 50 schools. Any change to the minimum number of School required for conducting the Acceptance test should be mutually decided by the parties and communicated in writing to the CONTRACTOR.
- C. The CONTRACTOR shall
 - I. demonstrate all the features/facilities/functionalities in accordance with this Agreement
 - II. arrange the test equipment required for Acceptance Test
- D. BSEDC agrees that, on the basis of test results by designated agency, the Acceptance Test certificate will be issued:
- E. In case the CONTRACTOR is not able to complete the installation at Schools due to non availability of site, the CONTRACTOR and BSEDC may mutually

agree to a new completion date and the provision of this Agreement shall operate to the new date as they operated to the original date.

ARTICLE 6- OPERATION OF THE SCHOOLS

- A. The CONTRACTOR shall operate the schools. The CONTRACTOR shall ensure that the Service Level performance indicators (SLA) are achieved failing which the CONTRACTOR shall be liable to pay the liquidated damages. The indicative liquidated damages are enumerated at Schedule 3. Unless the liquidated damages on the Services Level performance indicators are revised by the Parties, by mutual agreement in writing the performance indicators enumerated at Schedule 3 shall apply.
- B. The measurement of SLA shall be performed by the Designated Agency from online MIS developed by the Contractor. Other than that the CONTRACTOR shall submit monthly availability of Hardware/Software, generator logbook, diesel consumption report, availability of IT Trainer in the school with attendance, no. of theory classes and practical classes conducted as mentioned in the RFP and other equipments installed at the Schools certified by the head master or principal and forwarded by District Education Officer.
- C. The format of signoff will be designed by the BSEDC.

ARTICLE 7- INSURANCE

- A. The CONTRACTOR shall fully ensure the Supplies against loss or damage incidental to manufacture or acquisition, transportation, storage delivery and installation. The period of insurance shall be up to the date the rights to the supplies are transferred to BSEDC.
- B. The CONTRACTOR shall with each talking or renewal of insurance shall provide a copy of the necessary insurance policy to the Designated Agency.
- C. Contractor has to replace the damage/loss or stolen hardware within 15 days from the reporting date. In case of burglary or big theft the contractor has to replace the material after receiving of NTR from police department. However the QGR payment will be followed as per the terms and conditions of the SLA.

ARTICLE 8-TOTAL CONTRACT/PROJECT VALUE AND PAYMENT TERMS

- A. Total financial details are as under:

- I. The total value of this Contract/Project in respect to 600 Schools and 1 Directorate will be Rs.51, 14, 97,953/- (Rupees Fifty One Crore Fourteen Lakh Ninety Seven Thousand Nine Hundred Fifty Three Only). The Amount payable for 600 schools amounts to Rs. 51,02,50,200/- (Rupees Fifty One Crore Two Lakh Fifty Thousand Two Hundred only), and the amount payable for directorate amounts to Rs. 12, 47,753/- (Rupees Twelve Lakh Forty Seven Thousand Seven Hundred Fifty Three only).
 - II. The Quarterly Guaranteed Revenue (QGR) payable by BSEDC Ltd. for 600 Schools for 1 Quarter (3 months) shall be Rs. 4,25,20,850/- (Rupees Four Crores Twenty Five Lakh Twenty Thousand Eight Hundred Fifty only), accordingly QGR payable for 1 school for 1 quarter (3 Months) shall be Rs. 70868.08 and QGR payable by BSEDC Ltd. for directorate for 1 Quarter (3 Months) shall be Rs. 103979.41 (Rupees One Lakh Three Thousand Nine Hundred Seventy Nine and Paise Forty one only).
 - III. Out of this the CONTRACTOR shall be paid QGR of Rs 70868 (Rupees Seventy Thousand Eight Hundred Sixty Eight only) per School/Centre and Rs. 103979.41 (Rupees One Lakh Three Thousand Nine Hundred Seventy Nine and Paise Forty one only) for Directorate on quarterly basis after the end of a quarter on the basis of invoices submitted by the CONTRACTOR and verified, validated and accepted by the Designated Agency.
- B. No payment of QGR shall accrue until the issuance of the Acceptance Test Certificate.
- C. The CONTRACTOR shall make a payment request after the end of each quarter with the following supporting document.
- I. Acceptance Test Certificate for the Schools included for QGR.
 - II. SLA compliance report prepared by the Designated Agency.
- D. After the completion of the above, BSEDC will ensure payment to the CONTRACTOR within 30 days.

ARTICLE 9- REPRESENTATION AND WARRANTIES

- A. The CONTRACTOR represents and Warrants that
- I. It is a company duly organized and validly existing under the laws of India and has all requisite legal power and authority and corporate authorizations to execute this Agreement and carry out the terms conditions and provisions hereof.

- II. It has in full force and effects all requisite clearances approvals and permits necessary to enter into this Agreement and perform as obligation thereof.
- III. The Agreement and the transactions and obligations hereof do not contravene its constitutional documents or any law regulation of government directive and will not contravene any provisions of a constitute a default under other Agreement or instrument to which is a party or by which it or its property may be bound or any of its obligations undertakings by which it or any of its assets are bound or cause a limitation on its powers or cause it to exceed its authorized powers.
- IV. It has signed this Agreement after having (a) fully acquainted with the local conditions and factors which would have any effect on the performance of this Agreement, and (b) visited and examined the location of Schools and their surroundings and obtained all information that may be necessary for the performance of this Agreement.
- V. It shall not seek any change in the time schedule of this Agreement or any financial adjustments arising thereof on account of failure of the CONTRACTOR to know the local conditions.
- VI. There is no pending or threatened actions suits or proceedings alleging the CONTRACTOR or its affiliates or any of their respective assets before court, governmental agency, commission or arbitrator or administrative tribunal which affects the CONTRACTOR's ability to perform its obligations under the Agreement, and neither CONTRACTOR nor any of its affiliates have immunity from the jurisdiction of a court from legal process (whether through service of notice attachment prior to judgment attachment in aid of execution or otherwise).
- VII. All representations and warranties of the CONTRACTOR set forth in the Agreement are true, complete and correct in all respects.
- VIII. No information given by the CONTRACTOR in relation to this Agreement project documents or any document comprising security contains any material mis-statement of fact or omits to state as fact which would be materially adverse to the enforcement of the rights and remedies of BSEDC on which would be necessary to make any statement representation or warranty contained herein or therein true and correct.
- IX. It shall furnish certificates from the manufactures of all equipments that the equipments supplied by them are new and not be de-supported or declared end of life within next 3 years. All equipments shall conform to the codes, standards and regulations applicable to networking facilities and benefits from the usual manufacturer's guarantees.

- X. The warranties for the Supplies are valid for 3 years from the date of Acceptance Testing.
- XI. The CONTRACTOR shall before creating any encumbrances, charge or lien on or in relation to the Supplies:
 - 1) Make available a copy of this Agreement to the person in whose favour the encumbrances charge or lien is proposed to be created.
 - 2) Inform such person in writing that on expiration or termination of this Agreement, the property in the Supplies shall stand transferred to BSEDC free from all encumbrances' changes or liens.
 - 3) Inform BSEDC of the terms of such encumbrance's changes lien.
- XII. Transfer all assets in accordance with this Agreement free from all encumbrances, changes or liens to BSEDC on the expiration of termination of this Agreement.

B. BSEDC represents and Warrants that:

- I. It has full legal right, power and authority to execute this Agreement and to enter into and perform its obligations under this Agreement.
 - II. This Agreement has been duly authorized executed and delivered by BSEDC and constitutes valid, legal and binding obligation of BSEDC.
 - III. The execution and delivery of this Agreement with the CONTRACTOR does not violate any statutory judgment, order, decree, regulation, right, obligation or rule of any court, government authority or arbitrator of competent jurisdiction applicable in relation to BSEDC its assets on the administration.
 - IV. BSEDC agrees that BSEDC shall have no title to any of the equipment and construction pre-fabricated site & laid cables made available to delivery of Services by the CONTRACTOR during the period of this Agreement. At the end of such period the title and possession of the aforesaid equipment etc shall stand transferred to BSEDC.
- C. The Parties agree that these representations and warranties are taken to be made on each day during the term of this Agreement.

ARTICLE 10- LIQUIDATED DAMAGE

- A. The Parties acknowledge that it would be difficult to determine the actual damages if the one of the party commits any breach its obligations under this Agreement. The Parties therefore agree that liquidated damages in accordance with the provisions hereinafter and Schedule 3 is a realistic

estimate of the likely loss to BSEDC in case of default by the CONTRACTOR and that the estimate has no element of penalty.

- B. If the CONTRACTOR fails to complete the Acceptance test within the time specified by BSEDC, the liquidated damages would be a sum equivalent to 0.25% of the arithmetic sum of the QGR for 75% of the Schools for the three years payable under this Agreement, for each week or part thereof of delay until actual delivery of performance.
- C. The maximum liquidated damages for the delay shall not exceed 2% of the arithmetic sum of three years QGR for 90% of the Schools if the delay continues beyond 20 weeks, such delay shall constitute breach of the terms of this Agreement.
- D. In the event the CONTRACTOR is unable to meet any one of the SLA parameters defined in the Agreement for 10% or more of the Schools during two quarters in a year of five quarters during the three years of this Agreement, BSEDC may terminate the Agreement after giving sufficient opportunity to the CONTRACTOR.
- E. The Parties acknowledge that notwithstanding the provisions relating to liquidated damages, the continual breach of obligations by the CONTRACTOR shall constitute material breach of the terms of this Agreement BSEDC shall, without prejudice to other remedies, have the right to terminate this Agreement provided sufficient opportunity given to the CONTRACTOR.

ARTICLE 11- CONFIDENTIALITY

- A. The term “Confidential Information” for the purpose of this Article means any information, including information created by or for the Party, whether written or oral, which relates to internal controls, computer or data processing programs, electronic data processing applications, routines subroutines, techniques or systems or information concerning the business or financial affairs and methods of operation or proposed methods of operation accounts, transactions proposed, transactions or security procedures of either Party or any of its affiliates or any client of either Party except such information which is in the public domain at the time of its disclosure or thereafter enters the public domain other than as a result of a breach of duty on the part of the Party receiving such information.
- B. The CONTRACTOR shall keep confidential any Confidential Information with the same degree of care as it would treat its own confidential information, which degree of care in no case shall be less than reasonable.

- C. The CONTRACTOR shall use the Confidential Information only for the purpose of the Agreement and not for any other purpose.
- D. The CONTRACTOR shall cause all its employees or agents who have been given access to the Confidential Information bound by the confidentiality obligation of this Agreement.
- E. The obligations of confidentiality under the section shall survive termination of expiration of this Agreement.

ARTICLE 12- TERM AND TERMINATION

- A. The Agreement shall be valid for a period of 3 (three) years from the date of Acceptance Test certificate issued by the Designated Agency.
- B. This Agreement shall be terminated by either party upon the happening of all or any of the following events-
 - I. Upon either Party being decided insolvent or bankrupt.
 - II. Upon either Party committing a material breach or being in default of all or any of the terms, conditions, covenants undertakings and stipulations of this Agreement. In case the material breach is remediable the aggrieved Party shall give notice in writing of such default in observance or performance of any of the terms or conditions of this Agreement to the Party in default. If the Party in default effectively remedies such breach on default within the period not being less than 30 (thirty) days, designated by such notice then the Agreement shall remain in force.
 - III. By mutual agreement in writing between the Parties.
- C. Upon expiration or termination of this Agreement.
 - I. The CONTRACTOR shall:
 - 1) Notify to BSEDC forthwith the particulars of all project assets.
 - 2) Deliver forthwith actual or constructive possession of the Schools free and clear of all encumbrances and execute such deeds writing and documents as may be required by BSEDC for fully and effectively divesting the CONTRACTOR all of its rights, title and interest in the Centre.
 - 3) Pay all transfer costs and stamp duty applicable on hand back of project assets except in case the project is being transferred to BSEDC, where BSEDC shall be responsible for transfer costs and stamp duty if any. For clarification of doubt transfer costs in this cause relate to taxes and duties applicable at transfer of the Schools if any.
 - 4) Deliver relevant records and reports pertaining to the Schools and its design, engineering, operation and maintenance including all operation

and maintenance records and manuals pertaining thereto and complete as on the date of termination or expiration.

- 5) Comply with all other requirements as may be prescribed under applicable laws to complete the divestment and assignment of all the right, title and interest of the CONTRACTOR in the Schools free from all encumbrances absolutely and free of any charge or tax to BSEDC or its nominee.

II. BSEDC shall expeditiously settle the accounts.

- D. Not earlier than 3 (three) months before the expiry of the contract period but not later than 30 (thirty) days before such expiry, or in the event of earlier Termination of the contract immediately upon but not later than 15 (fifteen) days from date of termination, the Designated Agency shall verify in the presence of a representative of the CONTRACTOR, compliance by the CONTRACTOR with terms of this Agreement and, if required, cause appropriate tests to be carried out at the CONTRACTOR's cost for determining the compliance therewith if any shortcomings are found by either Party, it shall notify the other of the same and the CONTRACTOR shall rectify the same at its cost.
- E. Upon the CONTRACTOR handing over actual or constructive possession of the Schools to BSEDC or its nominee. BSEDC shall issue a certificate evidencing the divestment of the CONTRACTOR's all rights, title and lien in the Schools, issue of such certificate shall not be unreasonably withheld by State Government.
- F. In case of introduction of new Services or termination of any existing Services hardware/network components may have to be discarded or be replaced in such a case, BSEDC shall buy back all such equipments with depreciation price as per the straight line depreciation method. However, all such components should be in full working condition. The status of component estimated useful life of the asset and the depreciated of the asset shall be certified by third party monitoring agency.
- G. BELRTON may forfeit the performance guarantee for any failure on part of CONTRACTOR to complete its obligations under this Agreement. BSEDC shall return the performance guarantee to the CONTRACTOR within 30 days of the expiration of this Agreement. In the event of any amendment furnish the amendment to the performance guarantee as required.

ARTICLE 13- PUBLICITY

The CONTRACTOR shall not use the name ICT@SCHOOL PROJECT –Govt of Bihar in any of its promotional and advertisement materials without prior written approval of BSEDC.

ARTICLE 14- NOTICE

A. No notice, acceptance, approval, consent or claim under or in pursuance of this Agreement shall be valid unless sent by registered mail or reputed courier to the under mentioned address and received by the other Party.

For M/s Bihar State Electronics Development Corporation limited Mr. Rakesh Mohan Designation: General Manager Bihar State Electronics Development Corporation Limited Address: BELTRON Bhawan Shastri Nagar, Patna-800023.	For M/s Educomp Solutions Limited Mr. Pranab Kumar Bose Designation: Vice President Address: 1211, Padma Tower 1, 5, Rajendar Place, New Delhi 110008 India
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B. The Notice, consent, acceptance or approval sent telex shall be deemed to have been received on the next working day following the delivery.

ARTICLE 15- ASSIGNABILITY

- A. BSEDC may assign this Agreement or any rights granted under this Agreement to any person under intimation to the CONTRACTOR.
- B. The CONTRACTOR shall not assign this Agreement to any rights granted under the Agreement without the prior written consent of BSEDC
- C. Subject to the aforesaid limitation on assignment this Agreement shall be binding upon and inure to the benefit of any successors in interest and assigns of the Parties hereto, who shall expressly assume in writing the performance of all the terms and conditions of this Agreement to be performed by the Parties hereto.

ARTICLE 16 – ENHANCEMENT

Should at any point of time, during the period of validity of this contract of 3 (three) years, the Government decides to award more number of schools, but not more than 20% of present contract value in addition to the number of schools already defined under this Contract to the CONTRACTOR. In such case

a separate contract will be executed between BSEDC and the CONTRACTOR. The same, however, will be subject to the quality of performance of this Contract by the CONTRACTOR, as assessed by BSEDC through a Performance Review Committee. Any enhancement of the scope of work of this Contract a supplemental agreement/contract would be drawn up between the Purchaser and the CONTRACTOR on mutually agreed terms and conditions in observance of the broad principles of this Contract.

Similarly, should the Government decide to extend the period of this contract during the period of currency of this contract, an amendment to this contract will be executed between BSEDC and the CONTRACTOR on mutually agreed terms and conditions in observance of the broad principles of this contract. Failing amicable settlement, this Contract shall come to a close and at the end of the three (3) year period.

ARTICLE 17- FORCE MAJEURE

- A. Neither Party shall be responsible to the other for any delay or failure in performance of its obligations due to any occurrence commonly known as Force Majeure which is beyond the control of any of the Parties, including, but without limited to fire, flood, explosion, acts of God or any Governmental body, public disorder, riots, embargoes. Or strikes, acts of military authority, epidemics strikes lockouts or other labor disputes insurrections civil commotion, war enemy actions.
- B. If a Force Majeure arises the CONTRACTOR shall promptly notify BSEDC in writing of such condition and the cause thereof. Unless otherwise directed by BSEDC, the CONTRACTOR shall continue to perform his obligations under the contract as far as is reasonable practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- C. The CONTRACTOR shall be excused from performance of his obligations in whole or part as long as such causes, circumstances or events shall continue to prevent or delay such performance.

ARTICLE 18- ENTIRE AGREEMENT

This Agreement constitutes the entire agreement between the Parties hereto with respect to the subject matter of this Agreement and supersedes all previous negotiation, agreements and commitments if any and shall not be changed or modified in any manner, except by instruments signed by duty authorized representatives of both Parties.

ARTICLE 19- SEVERABILITY

The Parties hereto agree that in the event of one or more of the articles or provisions hereof being subsequently declared void or invalid for any reason the violability or invalidity or unenforceability of such articles or provisions shall not affect the validity or enforceability of other articles or provisions which can be clearly separated or disjuncted.

In case the provisions or articles declared void or invalid are material to the operation of the Agreement, the Parties shall negotiate in good faith articles or provisions to replace the articles or provisions void or invalid.

ARTICLE 20- NON-WAIVER

Any failure of any party hereto to enforce any of the provisions of this Agreement or to require at any time performance by the other party of any of the provisions hereof during the term of this Agreement shall in no way affect the validity of this Agreement or any part hereof, or the right of either party thereafter to enforce each and every such provision.

ARTICLE 21- GOVERNING LAW & DISPUTE SETTLEMENT

- A. This Agreement shall be construed, governed and implemented in accordance with the law applicable in India.
- B. In case of any dispute or difference arising out of the Agreement on any issue the same shall be settled amicably by the Parties. In case the Parties are unable to settle the dispute within 30 days, they shall refer the dispute to Arbitration by Bihar Public Works Contract Disputes Arbitration Tribunal in accordance with Bihar Public Works Contracts Disputes Arbitration Tribunal Act, 2008.
- C. The place of such Arbitration shall be at Patna, Bihar.
- D. The language of the Arbitration proceedings and of all documents and communications between the Parties shall be in English.

ARTICLE 22- HEADINGS & SCHEDULES

- A. The headings for each Article in the Agreement have been inserted for convenience of reference only and are not intended to limit or expand the meaning of the language contained in the particular Article.

B. The Schedules to this Agreement form an integral part of this Agreement and will be interpreted in consonance with the article of the agreement or provision referring to Schedule.

ARTICLE 23- INDEPENDENT CONTRACTOR

- A. For the purpose of the Agreement each Party thereto shall be deemed to be an independent CONTRACTOR and not any other party's agent or employee. Nothing herein contained shall be construed as a joint venture, a partnership or an agency nor shall any similar relationship be deemed to exist between the Parties except specifically provided herein.
- B. Without prejudice to the generality of the foregoing the CONTRACTOR shall ensure compliance with all Labour laws relating to employment including the Payment of Provident Fund. Employees State Insurance Act and Minimum Wages Act any other Labour Law.
- C. In case of default in compliance as aforesaid the CONTRACTOR shall be solely responsible for the consequences either in term of money or otherwise and that neither BSEDC nor the State of Bihar nor the Instrumentalities of the State of Bihar shall in any way be responsible or liable for such default.
- D. The CONTRACTOR shall indemnifies and promise to keep BSEDC, the State of Bihar and the instrumentalities of the State of Bihar indemnified against any and all losses, claims, damages, costs and reasonable expenses (including, but not limited to attorneys and experts fees costs of investigation and costs of settlement) which may or are likely to result from the CONTRACTOR's default as aforesaid.
- E. BSEDC and the CONTRACTOR have caused this Agreement to be executed in duplicate by their respective duty authorized officers on the date month and year and at the place indicated below.

For M/s BSEDC Ltd

For M/s Educomp Solutions Ltd.

Rakesh Mohan

Mr. Pranab Kumar Bose

(General Manager)

(Vice President)

Place: Patna

Place: Patna

Date. 04th May 2010

Date.04th May 2010

WITNESS:

Name: _____

Name: _____

Designation: _____

Designation: _____

Address: _____

Address: _____

SCHEDULE 1

SCHOOLS

Note: Availability of Schools to the CONTRACTOR has to be made by BSEDC through reference letter and accordingly timeline stated in this agreement would be effective.

SCHEDULE - 2**RESPONSIBILITY MATRIX**

Sl. No	Activity	BSEDC	CONTRACTOR
1	Site Handover	✓	✓
2	Site Survey and Preparation		✓
3	Installation and Commissioning of the hardware & networking equipment and software		✓
4	Monitoring the Installation and Commissioning of the hardware & networking equipment and software	✓	
5	Acceptance Tests	✓	✓
6	Onsite Inspection and Verification of Acceptance Tests	✓	✓
7	Trial Run		✓
8	Witness of Trial Run	✓	
9	Issue of Final Acceptance Test Certificate	✓	
10	Operation, Management and Maintenance of the Centres		✓
11	Help Desk and Centralized Monitoring (6x6x52)		✓
12	Supervision and Monitoring of the Services	✓	
13	Periodical Generation of MIS Report		✓
14	Verification of MIS Report	✓	
15	Approval of MIS Report	✓	

16	Periodical Auditing	✓	
17	Acceptance of the Audited Report	✓	

SCHEDULE 3

Implementation Schedule

S. No.	Activity	Minimum schools for Acceptance Test	Completion Schedule
1	Site identification	50 schools	30 days
2	Site handover		
3	Site preparation		
4	Hardware and Software delivery and installation		
5	Deployment of IT Trainer		
6	Request for AT		
7	AT by BeST Ltd to be nominated by BSEDC.		15 days
8	Report submission		7 days
9	ATC issued by BSEDC Ltd.		7 days

Service Level Agreement (SLA) Requirement

1. Service Level Agreement (SLA) is the contract between the BSEDC and the ICT@SCHOOL PROJECT Implementation Agency. SLA defines the terms of the operator's responsibility in ensuring the performance of the ICT@SCHOOL PROJECT based on the agreed Performance Indicators as detailed in the Agreement. This section defines various Service Level

Indicators for ICT@SCHOOL PROJECT, which can be considered by the State in the Service Level Agreement with operator.

- The Table below summarizes the Indicative Performance Indicators for the services to be offered by the ICT@SCHOOL PROJECT Operator. The detailed description of the performance indicators, SLA Terms and their definitions are discussed in the following sections.

S. No.	Indicative SLA Parameters	SLA Target
1	Availability of core resources during school hours	95%
2	Internet availability	90%
3	Availability of IT trainer	23 days per months

3. ICT@SCHOOL PROJECT SLA Terms & Definitions

S. No.	SLA terms	Descriptions
1	ICT@School project core resources	ICT@SCHOOL PROJECT core resources' refers to Hardware & Networking equipment (Including Power Back-Up system), Software (System and Application), and Trainer
2	Uptime	'Uptime' refers to ICT@SCHOOL PROJECT core resources availability in School site. "%Uptime" means ratio of 'up time' (in minutes) in a month to Total time in the month (in minutes) multiplied by 100.
3	School Hours	SH refers to the utilization period for ICT@School project, which shall be typically starting from 08:00 hrs till 14:00 hrs Monday to Saturday or any other period to be defined by the BSEDC.
4	Planned outage	'Planned Outage' refers to unavailability of

		hardware & network services due to infrastructure maintenance activities such as configuration changes, up gradation or changes to any supporting infrastructure. Details related to such planned outage shall be agreed with the BSEDC and shall be notified to the School Head Master or Principal in advance (at least five working days).
5	Unplanned outage	'Unplanned Outage' refers to an instance in which non-availability ICT@School project Backbone for more than 3 consecutive Days.

a. Measurement of SLA

The Measurement of SLA shall be performed by BeST Ltd.,

SLA Reporting

For reports of performance of the ICT@School project, the operator is required to submit monthly availability of Hardware / Software in the Quarterly Signoff to be designed by the BSEDC and other equipments installed at Schools site certified by the local school Head Master or Principal.

Penalties:

The BOOT Operator shall be paid QGR as per the services (i.e. availability) provided to the BSEDC.

Parameters	Availability during school hours	Penalty
Core resources	>= 95%	Nil
	Less by 1 %	0.5% of the QGR
	Less by >1 but <2%	Additional 1 % of the QGR
	Less by >2% but <5%	Additional 2% for every %age.

	Less by 5% but <20 %	Additional 2.5% for every %age.
	<20%	No payment
Internet	>= 90%	Nil
	Less by 1 %	0.5% of the QGR
	Less by >1 but <2%	Additional 1 % of the QGR
	Less by >2% but <5%	Additional 2% for every %age.
	Less by 5% but <20 %	Additional 2.5% for every %age.
	<20%	No payment
IT Trainer	23 days	Nil
	1 day absent unauthorized	0.5% of the QGR
	2 day absent unauthorized	Additional 1 % of the QGR
	3-5 day absent unauthorized	Additional 2% for every day.
	More than 5 days absent unauthorized	No payment

A. Penalties for delay in implementation

If the Operator fails to complete the Acceptance Test within the time period (s) specified in the implementation plan, BSEDC may, without prejudice to its other remedies under the Agreement, levy as Penalties, a sum equivalent to 0.25 % of the arithmetic sum of the guaranteed revenue for 75% of the overall site for the three years payable under the Agreement, for each week or part thereof of delay, until actual delivery of performance. The maximum penalty for

delay shall not exceed 2% of the arithmetic sum of three years Guaranteed Revenue for 90% of overall site. If the delay continues beyond 20 weeks, BSEDC may terminate the Agreement.

BSEDC Ltd. reserves the right to terminate the contract, at any time without assigning any reasons and the contractor cannot claim any compensation in this respect.

S. No.	Activity	Delay	Penalty for implementation
1	Site commissioning	Delay less than 1 week	0.25% of 3 years of QGR for the lot (1 lot minimum 50 schools)
2		Delay above 1 week	0.25 % x no. of week (minimum 8 week) for the lot.
3	Wrong claim of AT (site found deficient at the time of AT)		5% of QGR for the lot

B. Operational Penalties

In the event the BOOT operator is unable to meet any one of the SLA parameters defined in this RFP for 10% or more of the operational School sites during two quarters in a year or five quarters during the three years of the contract, BSEDC reserves the right to terminate the contract.

SUPPLY

Scope of Work

Physical Infrastructure Requirements:

Computer Lab:

The contractor has to undertake site preparation work in 600 schools and one directorate. The contractor will be provided with 300 Sqft of constructed room, other site preparation like, flooring with vinyl floor has to be undertaken, for details please refer the bill of materials.

Electrical wiring:

The contractor has to undertake electrical wiring for PCs, Server, lighting, Fan, UPS, and Diesel Generator in 600 Schools and one directorate for detail specifications please refer bill of materials.

Furniture & Fixtures:

The contractor has to undertake procurement of furniture for Computer Lab which can facilitate 9 access points' nodes, two desktop and One Server, One printer and other peripherals and other associated fixtures like tube light and fans in 600 Schools and one directorate for detail specifications please refer bill of materials.

Generator:

The contractor has to provide ISO 9001 branded one 5 KVA Generator in each of the 600 Schools and one at the directorate. The Generator can be run with Diesel, Petrol Start kerosene/gas run for detail specifications please refer bill of materials.

UPS:

The contractor has to provide 3KVA line interactive ISO 9001 branded UPS with thirty minutes backup for detail specifications please refer bill of materials.

STP Cabling for LAN:

The contractor has to undertake STP Cabling for 9 access points' nodes, two desktop and One Server Local Area Network has to provide connectivity for boxes and other allied accessories for detail specifications please refer bill of materials.

Miscellaneous Items:

Wall clock of reputed brand (ISI mark)

Technology Infrastructure Requirements:

Personal Computers:

The contractor has to provide 12 Access Point (detailed specs given separately in BoM) in 600 Schools and one directorate for detail specifications please refer bill of materials.

Server:

The contractor has to provide 1 Server (detailed specs given separately in BOM) in 600 Schools and one directorate for detail specifications please refer bill of materials.

Printer/Scanner/Copier (3in1):

The contractor has to provide 1 Laser Printer (detailed specs given separately) in each computer Lab for list of schools mentioned in schedule-1

Switch:

The contractor has to provide 1 Switch (16 Port) (detailed specs given separately) in 600 Schools and one directorate.

Internet:

The contractor has to provide PSTN or broadband or any other internet connectivity (which ever is available in the location) in 600 schools. The charges for internet connection will have to borne by the contractor for detail specifications please refer bill of materials.

Application Software Requirements:

- Anti-Virus
- Management Information System to manage operations in 600 schools and also at central directorate level. The MIS software should be able generate period reports on availability of systems of students (Uptime, downtime etc.,) Asset management, and Maintenance management. The curriculum and marks obtained by individual students in 600 schools to be maintained at school level and consolidated at directorate level. The user requirement specification for the MIS will be approved by the BSEDC Ltd .

Services:

- 1) The contractor has to manage and operate the systems for the contracted period of 3 years, which includes maintenance of systems, loading of operating system and other allied software (these will be provided by BSEDC to the selected contractor), loading and checking for upgrades etc., in 600 schools and one directorate.
- 2) The contractor has to maintain the UPS and diesel generator located at school site for the period of contract. The diesel cost has to borne by the contractor.
- 3) Course curriculum under this project would be based on NCERT guidelines and State Education Board syllabus.
- 4) Setting a Help Desk/Call Center Facility at Patna. The Help Desk would be operational Mon-Sat from 8AM to 4 PM. The purpose of Helpdesk is to Log any call relating to the operations and management of the project in 600 schools. The Help Desk should be man by at least 6 people. The Help Desk should be located in the premises of Directorate for which directorate will provide space other infrastructure facilities to be created by the contractor.
- 5) The contractor has to provide one overall incharge project manager and other support staff of managing the project for 3 years.
- 6) Deploying support engineers to ensure the service level/ uptime agreed in the Service Level Agreement (SLA) at appropriate locations for maintenance, trouble-shooting and repair purposes
- 7) The contractor has to train at least 5 teachers during the first year of operations on the hardware operations, system software and application software in each of the 600 schools.

IT Training Curriculum and Delivery Methodology:

Target Segment

This program aims to accelerate computer literacy in the state of Bihar by providing a comprehensive program, which includes Computer Awareness, to all government schools for a period of 3 years. Refer the Annexure 1 for indicative curriculum and the final will be discussed with the successful contractor by the Directorate of Education, Bihar Government.

This program imparts general computer awareness to all classes assuming 300-350 students per school will undergo the program. In the subsequent years, the focus is more on application programming and Internet programming for classes 8 to 12.

IT Trainer and its responsibilities:

The contractor shall provide the following computer education and other services in all the schools during the contract period;

A. The contractor shall appoint one full time qualified and competent computer faculty to each of the school as per the following details:

- I. The candidate must be a BCA/Msc(IT)/BE(Computer)/BSc(IT) from UGC recognized university /DOEACC B Level. In addition, only candidates with knowledge of English speaking, reading and writing shall be appointed. The faculty shall be appointed by the contractor for all the twelve months of the year, including the period of vacation.
- II. All issues/ disputes arising out of the appointment of the computer trainer by the contractor for the project period and there after shall be resolved between the faculty / faculty members and the contractor, under such circumstances the BSEDC will not be liable for any payments, penalties or damages in the event of such dispute/s.
- III. BSEDC may appoint any consultant/state designated committee to monitor the selection process of IT Trainer.
- IV. The faculty selected by the contractor should be appropriately trained by the contractor on all aspects of education delivery including usage of hardware and software with ease, communication skills, upkeep and maintenance of the equipment, and only then shall the faculty be appointed and deputed to the school. The contractor shall take appropriate measures to retain the trained faculty, in case of attrition; any new faculty selected should be equally trained before being deputed as a IT Trainer in the school.
- V. Teach computer education in Hindi and/or English depending on the medium of instruction followed in the school. The syllabus to be followed would be prescribed by Government. Syllabus may be changed/ revised at any point of time by Government.
- VI. The normal school hours will be between 8.00 AM and 5.00PM subject to any variations at the district level as may be intimated from time to time. The total minimum number of periods of computer training shall be forty five periods per week.
- VII. The appointed faculty shall be present and provide computer education on all working days of the school and also during the school vocation, absence from duty or not carrying out the assigned duties would amount to down time and these days would attract penalty.

- VIII. The faculty should ensure that all teachers and students in the school are provided personal E-mail accounts and each person send and receive at least five E-mails in a month.
- IX. Teach computer education in Hindi and/or English depending on the medium of instruction for classes 8, 9, 10, 11 & 12 based on the syllabus as approved by Government of Bihar.
- X. Computer training to be provided to a minimum of 5 government school teachers, including the head master/mistress of that school and nearby schools covering all areas in computer literacy and computer education for a period of 15 days each year during mid-term and summer vacation. In all such trainings the ratio between teacher and computer shall be 1:1.
- XI. Provide assistance to the head master in using the computers for school administration, EMIS, school management and monitoring through E-mail or any projects run by the State Government.
- B. The contractor should make arrangements for the conduct of at least two tests and one mid-term examination during the academic year.
- C. Contractor shall provide sufficient computer stationery and all kinds of consumables during the contract period without giving room for stoppage or postponement of any scheduled learning activity.
- D. Contractor shall provide high quality plastic covers for each of the equipment provided.
- E. All software required to be installed by the contractor must be taken in the name of the respective school.

Program Details (Indicative curriculum)

Curriculum Outline for Class 8

All students in class 8 will follow the basic program on computer awareness in the first year. The basic program for class 8 covers Computer basics, graphic tool, Internet, e-mail, keyboarding exercises. Windows XP, presentation tool, Internet, Word processing, project that included all modules.

The curriculum for class 8 is called the Computer Awareness Program.

Curriculum Outline for Classes 9 to 12

All students in classes 9 to 12 will follow the computer awareness program for seniors in the first year. The computer awareness program for classes 9 to 12 covers computer basics, Windows XP, graphic tool, presentation tools, word processing, Internet and e-mail.

The curriculum coverage for the subsequent years for classes 9 to 12 is as follows.

Class 9 – Computer basics, Windows XP, presentation (Advanced), word processing (Advanced), networking, Internet, e-mail

Class 10 – Basic spreadsheets, advanced spreadsheets, Internet, e-mail, HTML

Class 11 – Introduction to computers, Windows and word processing, Internet, e-mail, PLT, QBasic, C++

Class 12 - Java, VB.Net, Internet, e-mail

The curriculum for classes 9-12 is called the Professional Program.

NB: However incase Government of Bihar wants to introduce or amend the curriculum during the currency of the SLA, the same needs to be worked out mutually between the successful contractor and BSEDC Ltd. Such change will not come in force in mid of an academic year.

Methodology

- The classes will be based on a classroom (Theory)/lab mode.
- Students of classes 8 to 12 will get 2 periods of computer education per week.

Classes	No. of Periods
8	44
9 – 10	44
11 – 12	40

Implementation Plan

For class 8

- I. There could be 3 to 4 sections in each class.
- II. Two periods is allocated per week for each section.
- III. Each section may or may not be divided into two batches.

- IV. For every class theory class will be followed by practical class in the lab or as convenient.
- V. More emphasis will be given on Lab sessions.
- VI. Every week, each batch will have their lab session.

For classes 9 to 12

- I. There could be 2 to 3 sections in each class.
- II. Two periods are allocated per week for each section.
- III. Each section may or may not be divided into two batches.
- IV. When one batch in a section attends the classroom session, the other batch will attend the lab.
- V. Each batch will have one Theory session and one Lab session per week.
- VI. For every class theory class will be followed by practical class in the lab or as convenient.

Deployment Plan

	Year 1	Year 2	Year 3
Class 8	Computer Awareness Part1	Computer Awareness Part2	Computer Awareness Part3

	Year 1	Year 2	Year 3
Class 9	Computer Awareness Seniors for	Professional curriculum Part1	Professional curriculum Part1
Class 10	Computer Awareness Seniors for	Professional curriculum Part1	Professional curriculum Part2
Class 11	Computer Awareness Seniors for	Professional curriculum Part3	Professional curriculum Part3
Class 12	Computer Awareness Seniors for	Professional curriculum Part3	Professional curriculum Part4

Table of Contents for Computer Awareness Part 1

Computer Overview –1
Characteristics of a Computer – Benefits and Limitations
Types of Computers – PC, Minicomputers, Mainframes and Supercomputers
Parts of a Personal Computer, Hardware and Software
Working of a Computer – The I-P-O Cycle
Input and Output Devices, Storage Devices and Medium
Computer Memory – RAM and ROM
Computer Applications
Paint
Using the Toolbox - Pencil, Line, Eraser, Brush, Fill with Color, Color Box, Text, Rectangle, Circle, Ellipse and Square, Airbrush
Working with Menu Commands
Internet (using cache)
What is Internet?
History of Internet
Advantages of Internet
Requirements to connect to the Internet
E-mail – 1 (in an Intranet environment)
Keyboarding Exercises

Table of Contents for Computer Awareness Part 2

WINDOWS XP
Introduction to Windows
Components of Windows

Working with Windows
Working with My Computer and My Documents
Using Applications in Windows – Calculator, Paint, Notepad, Clock and Calendar
Customizing Windows – Taskbar, Background, Screensaver
Presentation Tool
Creating a Presentation
Components of a Presentation
Creating and Modifying Slides
Working with Slides – Add, Duplicate, Delete, Hide, Modify
Working with Views
Applying Slide Transitions
Internet (using cache)
Internet Services
Internet Vocabulary
Browsing the Internet
E-mail - 2 (in an Intranet environment)

Table Of Contents for Computer Awareness Part 3

Basic Word Processing
Components of a Word Processor Interface
Creating, Opening and Saving a Document
Selecting and Manipulating Text – Cut, Copy and Paste
Navigating Within a Document

Internet (using cache)

Using Search Engines

Web Browsers

Navigating between Web pages

E-mail - 3 (in an Intranet environment)

Project Work in Office Applications and Internet

Table of Contents for Computer Awareness for Seniors for Classes 9 to 12

Computer Overview –1

Characteristics of a Computer – Benefits and Limitations
--

Types of Computers – PC, Minicomputers, Mainframes and Supercomputers

Parts of a Personal Computer, Hardware and Software

Working of a Computer – The I-P-O Cycle

Input and Output Devices, Storage Devices and Medium
--

Computer Memory – RAM and ROM

Computer Applications

WINDOWS XP

Introduction to Windows

Components of Windows

Working with Windows

Working with My Computer and My Documents

Using Applications in Windows – Calculator, Paint, Notepad, Clock and Calendar
--

Customizing Windows – Taskbar, Background, Screensaver
--

Paint

Using the Toolbox – Pencil, Line, Eraser, Brush, Fill with Color, Color Box, Text, Rectangle, Circle, Ellipse and Square, Airbrush

Working with Menu Commands

Presentation Tool

Creating a Presentation

Components of a Presentation

Creating and Modifying Slides

Working with Slides – Add, Duplicate, Delete, Hide, Modify

Working with Views

Applying Slide Transitions

Basic Word Processing

Components of a Word Processor Interface

Creating, Opening and Saving a Document

Selecting and Manipulating Text – Cut, Copy and Paste

Navigating Within a Document

Internet Basics (using cache)

What is Internet?

History of Internet

Advantages of Internet

Requirements to connect to the Internet

An introduction to e-mail (in an Intranet environment)

Table Of Contents for Professional Curriculum Part1

Computer Overview
The System Unit
Functions of the Motherboard Components- Microprocessor, Clock, Memory, Bus, Ports and Expansion Slots
Computer Generations
Types of Languages - Machine, Assembly and Programming
Introduction to Number Systems – Decimal and Binary
Printers - Dot Matrix, Desk Jet and Laser
Computer Maintenance
Windows XP
Working with Windows Explorer
Working with Files and Folders - Create, Cut, Copy, Paste, Move, Select, Rename and Delete Files or Folders
Creating Shortcuts
Using the Control Panel
Working with the Recycle Bin and Network Neighborhood
Presentation Tool
Using Slide Master, Title Master, Handout and Notes Master
Working with Slide Layouts - Chart and Text, Organizational Chart
Inserting Objects
Viewing the Slide Show
Timing your Presentation and Adding Animation
Word Processing

Formatting Paragraph
Creating and Formatting Bulleted and Numbered Lists
Inserting a Break - Column and Section Breaks
Working with Tables
Working with Different Views in a Document
Working with Multiple Documents - Window Menu
Inserting Objects
Using Word Tools – Mail Merge
Networking
Introduction to Network - The Need and Advantages
Differentiate between LAN, WAN, and MAN
Internet – 1
Services on the Web- E-Mail, Newsgroups, FTP, Search Engines, Chat Rooms, Electronic Commerce
Internet Vocabulary – WWW, Browser, URL, Homepage, Web page, Web site, hyperlink, hypertext
Browsing the Internet
Sending and receiving e-mails – 1

Table Of Contents for Professional Curriculum Part 2

Basic Spreadsheets
Spreadsheet Basics
Entering and Editing Data
Modifying a Worksheet
Moving and Copying Data and Formulae
Using References/Addressing
Inserting and Deleting Ranges
Formatting Worksheets
Formatting Text, Rows and Columns
Inserting Header and Footer
Inserting Comments
Inserting a New Worksheet
Printing, Preview before Printing
Advanced Spreadsheet
Using Functions
Using AVERAGE, MIN, MAX, and COUNT
Sorting and Filtering Data
Protecting Worksheets and Workbooks
Working with Macros
Working with Charts
Internet – 2
Using Search Engines to Search for Information
Web Browsers

Handling File Operations

Navigating between Web Pages

Adding Sites to the Favorites Folder

Sending and receiving e-mails – 2

HTML

Introduction to HTML Tags

Structure of a HTML Document

Heading Tags

Horizontal Rule Tag

Adding Colour to the Document

Marquees Tag

Adding Pictures to the Document

Sound Tag

Lists

Creating Links – The Anchor Tag

Tables

Frames

Forms

Table of Contents for Professional Curriculum Part 3

Introduction to Computers
Use of Computers, Benefits and Limitations
History of Computers, Computer Generations
Types of Computers
Parts of a Computer, Working of a Computer
Memory, Storage Capacity, Disk Drives
Software and Data Organisation
An Introduction to Windows
Parts of a Window
Moving and Resizing Windows
Working with the Windows Desktop
Using the Start Menu
Introduction to Word Processing
Components of a Word Window
Creating a New Document
Entering Text
Saving a Document
Editing in Word
Opening an Existing Document
Navigating Documents
Moving and Copying Text
Internet – 3
Introduction to Internet

Using Search Engines
E-mail
Creating an e-mail Account
Sending and receiving e-mails – 3
Programming Logic and Techniques (PLT)
Introduction to Programming Logic and Techniques
Introduction to Pseudocode and Flowchart
Variables, Constants and Operators
If...Then...Else Construct
Introduction to Loops – While and For Loops
Introduction to Qbasic
Introduction to Qbasic
Data Types in Qbasic
Variable Naming Conventions in QBasic
Operators – Arithmetic, Relational and Logical
Simple Programming in Qbasic
Loading Qbasic
File Naming Conventions
Command Modes in Qbasic
Structure of a QBasic Program
Comment Statement
Output Statement – PRINT
Assignment Statement – LET
More on PRINT Statement

INPUT Statement
END Statement
Saving and Executing a Program

Table of Contents for Professional Curriculum Part 3 (Contd...)

More on Input Statements
Variations of INPUT
The READ and DATA Statements
Branching
The GOTO Statement
Decision-making Statements
Looping
The For. Next Loop
Nested For Loop
Basic Programming in C++
Evolution and Structure
Introduction to OOPs
Constants and Variables
Operators
Arithmetic, Logical and Relational Operators
Types of Operators
Type Conversion
Constructs
If...Else

Switch...Case
Loops
Structures
User-defined Data types
Structure Specifier
Pointer Operator
Arrays and Functions
Introduction to Arrays
Types of Arrays
Introduction to Functions
User-defined Functions and Library Functions
Pointers
Introduction to Pointers
Types of Pointers
Classes
Introduction to Classes
Access Specifiers
Constructors and Destructors
Inheritance and Polymorphism

Table Of Contents for Professional Curriculum Part 4

Introduction to JAVA
Evolution of Programming Languages, Structured Programming Object – Orientation
The Java Platform, Java Applications and Applets
Objects, Classes and Methods
Data Types in Java
Arithmetic Operators and Expressions
Java Control Statements
The if Statement
The switch Statement
Loops in Java
The Bitwise Operators
Arrays & Strings
The StringBuffer Class
Functions
Defining and Calling Functions
Passing Arguments
Nested Functions
Recursion
Object Oriented Programming
Software Development
Object Oriented Analysis and Design Methodology
Objects, Classes and Inheritance

Classes and Methods
Classes
Instance Variables
Adding Constructors
Adding Methods
Static Variables and Methods
Overloading
Inheritance
Subclass
Inheritance and Variables
Method Overriding
Variable Modifiers
Constructor Modifiers
Method Modifiers
Java Class Libraries
Applets
An Introduction to Applets
The Life Cycle of an Applet
Graphics
The Graphics Class
Displaying Text
Using Applet Dimensions
Multithreading

Table Of Contents for Professional Curriculum Part 4 (Contd...)

Introduction to VB.Net
Basics of VB.Net
Features of VB.Net
Forms
Events
Data Types, Constants and Variables
Functions, Structures and Loop Constructs
Programming in .Net
Controls
Arrays
Programming with Controls
Object Orientation in .Net
Features
Introduction to OOPs Concepts
Classes
Overriding and Overloading
ActiveX Data Objects
Introduction to ADO
Menus
Internet – 4
Sending and receiving attachments
Cookies
Customizing e-mails

Adding emoticons

Indicative Bill of Material and Specification of equipment supplies:

The Company should supply the computer systems manufactured by the vendors with ISO 9001/9002 Certification.

Sl No	Item	Specification	Item at each Location
1	Server	Single CPU, Quad-core X86, Server class processor with minimum 2.4 GHz clock speed, 8MB L3 cache or equivalent with minimum performance of spaceint_rate_base2006 score of 80 4 GB DDR3 RAM Ports: USB ports for keyboard and mouse 4 USB, 1 VGA Jacks 3 Free PCI slots 1 TB SATA HDD or higher DVD Writer RW+ 17" TFT Color Monitor TCO 5, 104 Keys Keyboard (PS/2) Optical Scroll mouse with Pad (PS/2) Onboard 2x10/100/1000 Mbps Ethernet/, SMPS Surge protected Power supply Multimedia Kit with Head Set	2

S1 No	Item	Specification	Item at each Location
		<p>(Operating System: windows server-2008 Prof Starter.)</p> <ul style="list-style-type: none"> • Dust covers 	
2	Clients	<p>Multibox device which allows 5 users to share a single host PC through a Shared Computing PC-Sharing kit (which includes one Full Height PCI Card, Virtualization software, Access devices with Speaker Output, PS/2 Mouse and PS/2 Keyboard output. SVGA Monitor output and RJ 45 Connection Port.</p> <ul style="list-style-type: none"> • Each access device should be standalone equipment and not integrated with any peripheral like keyboard, mouse, monitor etc. • Each user should have 15” wide TFT or higher (TCO03/FCC-B/CE/EPA/RoHS certified or equivalent), PS/2 keyboard and PS/2 mouse. • The access device should be integrated with host PC via cable. <p>Each user should have independent desktop environment</p> <p>User experience on shared terminal should be substantially the same as on the host PC (Boot time, Login Experience, Responsiveness (mouse, keyboard, application start-up and execution), Graphics/Multimedia,</p>	10

S1 No	Item	Specification	Item at each Location
		<p>Logout.</p> <p>Power consumption of each access device should not exceed more than 1-2 watts</p>	
3	Anti Virus	Pre loaded Norton/McAfee/Dr S/Trend Micro/Quick Heal Licensed Version	2
4	Laser printer, Scanner & copier	<p>Print Speed 25 ppm, Mono Network Laser Printer upto 1200X1200 dpi A4 size, 25 ppm duplex input Capacity-Upto 250 sheets Duplex printing (printing on both side of paper)-Automatic (Standard)</p> <p>Paper handling- Single sheet multipurpose input slot 250 sheet input tray Media type -paper, envelop labels, cardstock transparencies. heavy media</p> <p>Memory-128MB</p> <p>Connectivity Std- USB 2.0 compatible port/ IEEE 1284-B compliant parallel port,</p> <p>inbuilt Processor (300 mhz /more)</p> <p>A4 size, 25.ppm. duplex.</p> <p>Up to 3600 dpi</p> <p>Interfaces: Hi-Speed USB (compatible</p>	1

S1 No	Item	Specification	Item at each Location
		with USB 2.0 specifications) Task speed: 4 x 6-in color photo to file: about 10 sec for multiple image scan, about 31 sec for single image scan; OCR 8.5 x 11-in text to Microsoft Word: about 33 sec; 4 x 6-in color photo to share/e- mail; about 34 sec for single image scan	
5	Inter Net Services for Schools Minimum Uptime : 4 hr in a day	Wi-MAX-Services / Broad Band / Others 256 Kbps Upto 2 Mbps Telecom Services Provider : BSNL / Other Telecom Service Provide Contractor has to provide internet services with accessories in all computers of the schools	1
6	Networking Component s	Non-manageable Switch Number of port in Switch-16 Data Switching Speed of Switch- 100mbps (3-Com/ Dlink/ DAX/ Linksys) CAT-6 STP Cable – as per requirements of the site RJ 45 Connectors Information Outlets with Surface	1

Sl No	Item	Specification	Item at each Location
		mounting Box - As per reqts. of the site Laying of cable with conduit pipe – as per actual	
7	Wall Clock	ISI mark (branded)	1
8	UPS	3KVA ISI marked	1
9	Generator	One 5 KVA Generator, to run on Diesel or Petrol Start run on Gas/Kerosene/Petrol with ISO 9001 certification as per the norms of Central Pollution Control Board	1 or 2
10	Furniture (ISI Marks)	Standard Computer Table, Printer Table, Computer Operator Chairs Details about 1 School : No of Student chair: 22 Faculty chairs: 1 Number of Computer Tables : 12 Faculty Table with 2 Locker : 1 All the furniture's should be from the reputed company with ISI marked suitable for school computer lab	1 Set
11	Site Preparation	Electrical Wiring, earthing, Room lighting (4 CFL 18Watt x4) Fan, Change over switch, MCB (Hawels, Legrands or equivalent) Dust Free room With floor	1 FAN – 2nos

Sl No	Item	Specification	Item at each Location
	(300 sq feet)	preparation using Vinyl flooring and Oil Bond wall painting, MS Grill with central shutter lock for all the doors and windows for the allocated room.	CFL – 4 Nos
12	MIS Software Application for the project	The successful contractor should make available a web-based application software on a 24 x 7 basis for Facility Management, Infrastructure Management , Monitor the Delivery of IT education Services , Asset Management with online asset tracking system . User Requirement Specification of the application will be approved by BSEDC	1
13	IT Trainer	<p>The candidate must be a BCA/M.Sc.(IT)/BE(Computer)/BSc(IT) from UGC recognized university /DOEACC B Level. In addition, only candidates with knowledge of English/Hindi speaking, reading and writing shall be appointed. The faculty shall be appointed by the contractor for all the twelve months of the year, including the period of vacation.</p> <p>The net salary / honorarium / compensation to be paid to the faculty shall not be less than Rs. 5000/- excluding the contributions and deductions mentioned above and any benefits in the shape of training or</p>	1

Sl No	Item	Specification	Item at each Location
		certifications. * The contractor has to take into account the minimum wages, PF, ESI compliances for the faculty. * The faculty should be on the role/contract of the contractor who is signing the contract during the project period.	
14	Help Desk Personnel for directorate	BCA/Msc(IT)/BE(Computer) / Graduate in any discipline with 1 year Diploma in Computers or any other equivalent qualification in Computer Science/Computer from a recognized institute.	6
15	Infrastructure for Directorate	<ol style="list-style-type: none"> 1. Server with 5 node 2. Site Preparation 3. One Antivirus- 4. 1 UPS (2 KVA line interactive) 5. Multifunction Printer ,scanner copier -1 6. Computer table and chairs for 6 users Specification for the each components of the directorate should be same as mentioned above	

Details of Make and Model of the hardware supply as per technical bid and LoI are as under:

Item Description	Vendor	Make/Model
Server	Wipro	Net power Z1530
Access Point	N Computing	X550
15" TFT monitor + Keyboard + Mouse	Acer	Monitor + KB+ Mouse
	Dell	Monitor + KB+ Mouse
	Samsung	Monitor only
	Wipro	Monitor + KB+ Mouse
5 KVA Generator	Birla power	E G D 5 L DMM1
	Computer media	AG 5500 E
Line Interactive UPS 1.5 KVA with 30 mins back up	Asia Powercom	AP 1500 SWL
	NUMERIC	Digital 1600 HR
	EPOCH	1.5 KVA LI UPS
Line Interactive UPS 2 KVA with 30 mins back up (For directorate)	Asia Powercom	AP 2000 SWL
	NUMERIC	Digital 2000 HR
	EPOCH	2 KVA
3 in 1 Copier Printer and scanner	Samsung	Samsung SCX 4828 FN
16 Port Switch	DAX	DX-PP16024
	Digilink	DG-FS1016D
Cat 6STP Cable	DAX	CAT 6 STP
	Digilink	

	Fortune	ENTER
RJ 45 Connector	DAX	
	D-Link	
	Fortune	Enter
1 Meter Patch Cord	DAX	
	D-Link	
	Fortune	
IO BOX with SMB	DAX	
	D-Link	
	Fortune	
Wall Clock	Samay	
COMPUTER TABLE	Pentavision	
Instructor Table	Pentavision	
STUDENTS CHAIRS	Supreme	Dream
	Nilkamal	Model #4002
INSTRUCTOR CHAIRS	Supreme	Breeze
	Nilkamal	Model # 2125

