

**Request for Proposal (RFP)
For Implementation of
Bihar Revenue Administration IntraNet (BRAIN)
Data Center (DC)
&
Technology Facility Management Services (FMS)**

Tender No: BRAIN DC / Beltron 2007/02

30th January 2007



Bihar State Electronics Development Corporation Limited
BELTRON BHAWAN, SHASTRI NAGAR,
PATNA, BIHAR
PIN Code - 800023
Tel No: - 0612-2281856, 0612-2281857
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Web Site: - www.beltron.in



IMPORTANT INFORMATION

Table 1: Important Information about the RFP

Non-Refundable Tender Cost	Rs. 25,000/- in cash or through demand draft from a scheduled bank, drawn in favour of “Bihar State Electronics Development Corporation Limited”, payable at Patna.
Sale of RFP document	9.00 am to 5.00 pm on all working days starting from 30 th January 2007 till 21 st February 2007. Also downloadable from website (www.beltron.in) & tender cost payable by DD drawn at Patna favouring Managing Director, BSEDC
EMD	Rs. 30,00,000/- (Thirty Lakhs Only) in the form of Demand Draft / Bank Guarantee in favour of Bihar State Electronics Development Corporation Limited payable at Patna from a scheduled bank.
Last Date of Submission of written queries on Bid document	Any clarification and queries relating to tender document. Bidders have to submit their written clarifications & queries on or before 9 th February 2007 17:00Hrs in enclosed format {Ref: Appendix 16 }. Any clarification or query received after the due time and date will not be entertained.
Pre bid Conference	At 4.00 P.M. on 12th February 2007 Venue: BELTRON Bhawan, Shastrinagar, Patna
Last date for submission of Bids	Up to 5.00 P.M. on 21 st February 2007
Opening of Pre-Qualification Bids	2.00 P.M. on 22nd February 2007
Opening of Technical & Financial Bids	Only those Pre-qualified and Technical qualified bidders will be informed about the opening of Technical and Financial bids opening dates.
Address for Correspondence and	Director, Bihar e-Governance Services & Technologies



Clarifications	Limited, BELTRON BHAWAN, SHASHTRI NAGAR, PATNA, BIHAR, PIN Code - 800023 Tel No:- 0612-2281856, 0612-2281857 Fax No: - 0612-2281857 E-mail:- best@ifsets.com Web Site: - www.beltron.in
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Preface

- 1.1 Electronic Governance (or e-governance) has become an accepted methodology involving the use of IT to providing information speedily to all citizens, Improving Public services, improving administrative efficiency. In this direction Government of Bihar has adopted to rollout a major Information Technology Infrastructure project namely Bihar Revenue Administration IntraNeT Data Center for use of ICT in general administration.
- 1.2 To extend the success of computerization, Government of Bihar (GoB) through Bihar State Electronics Development Corporation Limited proposes to set up a centralized secure Data Center (DC) at Technology Bhawan, Bailey Road, Patna containing array of Web Servers, Application Servers, Database Servers, and Networking Equipments. The proposed Data Center will be used for securely hosting all applications that are being developed for computerizing the operations of various departments of GoB in order to render a wider range of services to the Citizens of Bihar.
- 1.3 In order to construct a data center that can meet the requirements of the various user departments, there are three basic areas of data center definition and development:
 - Facilities: including building, security, power, air-conditioning and room for growth
 - Network connectivity: performance, availability and scalability
 - Value-added services and the resources to support their delivery: service levels, technical skills and functional processes.
- 1.4 The aim is to provide all the GoB users with the physical environment, server hardware, network connectivity and technical skills necessary to keep computer applications up and running 24 hours a day, seven days a week. The ability to scale is essential, allowing operations to upgrade easily by adding bandwidth or server capacity on demand.
- 1.5 To build a robust scalable, secured and state of art Data Center and to manage the same, the total requirement divided into the following sections:
 - Data Center Specifications
 - Managed Operations



- 1.6 For the above projects BSEDC is considering the appointment of a Bidder (here in after referred to as “bidder”) to developing, designing, construction, establishing, implementing, operating and maintaining Data Center (DC) & Technology Facility Management Services (FMS) in an efficient and effective manner. Bidder has to quote for the implementation and management of the DC and provide FMS services in listed department offices and locations for duration of three years, in accordance with the various provisions of this RFP document.
- 1.7 The bidder has to provide Technology Facility Management Services at District and Department Offices Level for Treasuries, District Magistrate’s, Value Added Tax Offices and other offices in the State for 3 years. Location details for Treasury and VAT are given in the RFP document, other offices details will be provided later.
- 1.8 BSEDC invites sealed pre –qualification, technical and financial proposals from eligible Bidders for selection as bidder, to implement and operate Data Center (DC) and FMS in the Bihar. The bidder shall be selected as per the procedures described in this Request For Proposal (RFP).
- 1.9 Bidder shall submit three sealed envelopes containing:
- **Part I: Three hard copies and one soft copy of the Pre-qualification Bid.**
 - **Part II: Three hard copies and one soft copy of the Technical Bid.**
 - **Part III: Three hard copies and one soft copy of the Commercial Bid.**
- 1.10 You are hereby invited to submit technical and financial Proposals as per the provisions detailed in this RFP. The last date for submitting the technical and financial Proposal is 21st February 2007 latest by 5.00 PM to the following address which is to be used for all communication in regards to this bid process.

The Director

Bihar e-Governance Services and Technologies Limited

BELTRON Bhawan, Shastrinagar

PATNA BIHAR - PIN CODE-800023

Tel No: - 0612-2281856, 0612-2281857

Fax No: - 0612-2281857

e-mail:-best@ilfsets.com - Web Site: - www.beltron.in

- 1.11 Please note that a pre-bid conference would be held on 12th February 2007 at 4.00 PM in the office of Director, Bihar e-Governance Services & Technologies Limited, BELTRON Bhawan, Shastrinagar, Patna.



- 1.12 Bidders are requested to provide their queries or clarifications regarding the RFP conditions in the Annexure format only before the 9th February 2007 of pre-bid conference. Only those questions, which are submitted in writing, will be taken up for discussion in the conference. Purchase of tender document is mandatory for attending the pre-bid conference.
- 1.13 The authorised representative of the bidder should sign all the communication including this RFP and the bid documents on each page. Only One Signed Copy is to be attached with the Pre-qualification bid.



Letter for Invitation

Date of Issuance: _____

Ref. No: _____

To,

Dear Sir,

Bihar State Electronics Development Corporation Limited, A Government of Bihar undertaking now invites proposals to provide developing, designing, construction, establishing, implementation and operations of Data Center (DC) and Technology Facility Management Services (FMS) for a period of three years. More details on the services are provided in the Schedule of requirements.

You are requested to go through the document carefully and submit your proposals as per the instructions and guidelines given in the document.

Yours Sincerely

Managing Director

Bihar State Electronics Development Corporation Limited

BELTRON Bhawan, Shastri Nagar, Patna, 800023



Section III

Project Profile



Project Profile

Government of Bihar is currently implementing following major e-Governance projects. A brief snapshot is given for bidders understanding:

3.1 **Bihar State Wide Area Network** – BSWAN will integrate all 534 Block Head Quarters, 101 Sub-divisional Head Quarters, 38 District Head Quarters, 9 Divisional Head Quarters with Data Center located at Technology Bhawan, Patna. Apart from this there are roughly 4000 other state government offices / departmental offices / agencies / authorities which will be connected through 2Mbps Leased Line Circuit Network taken from BSNL in phase manner over next 18 months.

3.2 **Bihar Revenue Administration IntraNet (BRAIN)** – In this project two core components applications are in development phase

- **Comprehensive Treasury Management Information System (CTMIS)** for Bihar Revenue Administration IntraNet (BRAIN) that will provide a long-term solution for carrying out treasury functions of Government of Bihar (GoB) and provide consolidated and consistent information about the expenditure and revenues across all the treasuries in the state. The system is also designed to include the non-treasury transactions of GoB to cover its overall income and expenses. An integrated approach for management of government income and expenses. It encompasses budgeting, allotment of budget to the administrative departments and its DDOs, treasury transactions and budget compliance / Income / Expense analysis.

Table 2: A snapshot of the activities catering to the different users is detailed below

User Types	Activities
HO	Preparation of Budget, Managing Post-Budget Changes
Department/s	Allotment to DDOs
Treasury	Allotment Activations, Processing Receipts & Payments
HO	Consolidate Transactions across treasuries, Analysis on Variance, Income, Expenses etc.
AG	Receive data online from the treasury, to streamline and fasten the audit process

Figure 1 : Schematic View of CTMIS is depicted below:

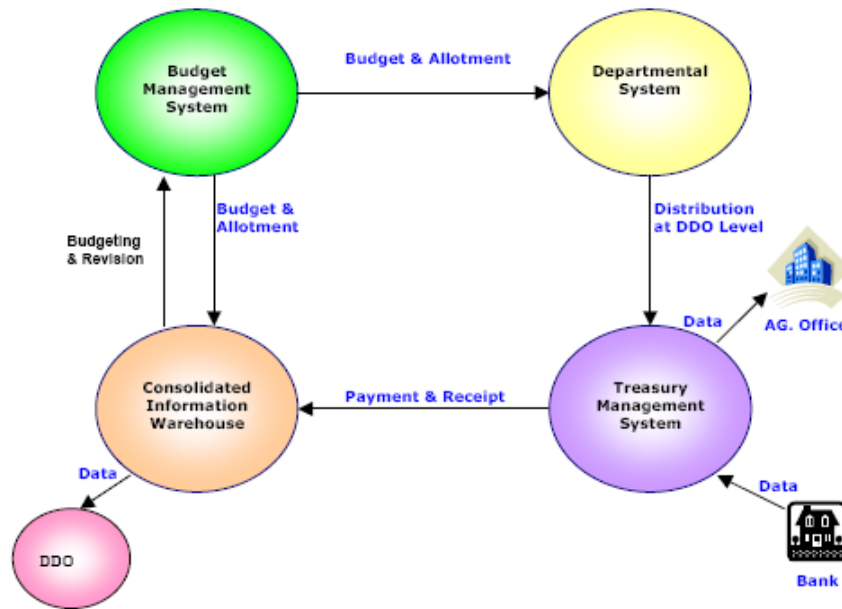


Table 3 : List of Treasury and Sub-treasury Locations in Bihar

Treasury Location	
1	Patna
2	Sinchai Bhawan (Patna District)
3	Nirman Bhawan (Patna District)
4	Vikash Bhawan (Patna District)
5	Nalanda
6	Bhojpur
7	Buxur
8	Rohtas (Sasaram)
9	Kaimur (Bhabhua)
10	Gaya
11	Jehanabad
12	Arwal
13	Nawadah
14	Aurangabad
15	Saran (Chapra)
16	Siwan
17	Gopalganj
18	Muzaffapur
19	Vaishal (Hajipur)
20	Sitamarhi
21	Sheohar
22	Motihari (East Champaran)
23	Bettiah (West Champaran)
24	Darbhangha
25	Samastipur
26	Madhubani
27	Sahrsa
28	Supaul
29	Madhepura
30	Purnea
31	Araria
32	Kisanganj
33	Katihar
34	Bhagalpur
35	Banka
36	Munger
37	Lakhisarai
38	Seikhpura
39	Jamui
40	Khagaria
41	Begusarai

List of Sub-treasury Locations

.....

S.No	Name of Treasury
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1	Danapur
2	Patna City
3	Barh
4	Mokhama
5	Masuri
6	Hilsa
7	Shergathi
8	Bagha
9	Roshra
10	Dalsignsarai
11	Jhanjharpur
12	Nawghacheia

13	Birpur
14	Farbhiganj
15	Lalganj
16	Dawodnagar
17	Nirmali

- **Value Added Tax Information System:** Government of Bihar has implemented Value Added Tax (VAT) across Bihar with effect from April 1, 2005. Towards this, Finance (Commercial Taxes) Department, Government of Bihar (referred to as Commercial Taxes Department / Department in rest of the document) wishes to improve the existing state of computerization. This initiative aims to achieve the following objectives:
 - Conversion to an online transaction processing system from a batch data entry mode of operation.
 - Improved and Increased Tax Revenue Base and Collections
 - Improved Services to Citizens by making services available through internet
 - Transparency, Accountability and Efficiency
 - Improved Internal Functioning of Finance (Commercial Taxes) Department
 - MIS and Reports for Efficient & Transparent Tax Administration

Figure 2 : Schematic View of VATIS is depicted below:



Application Framework

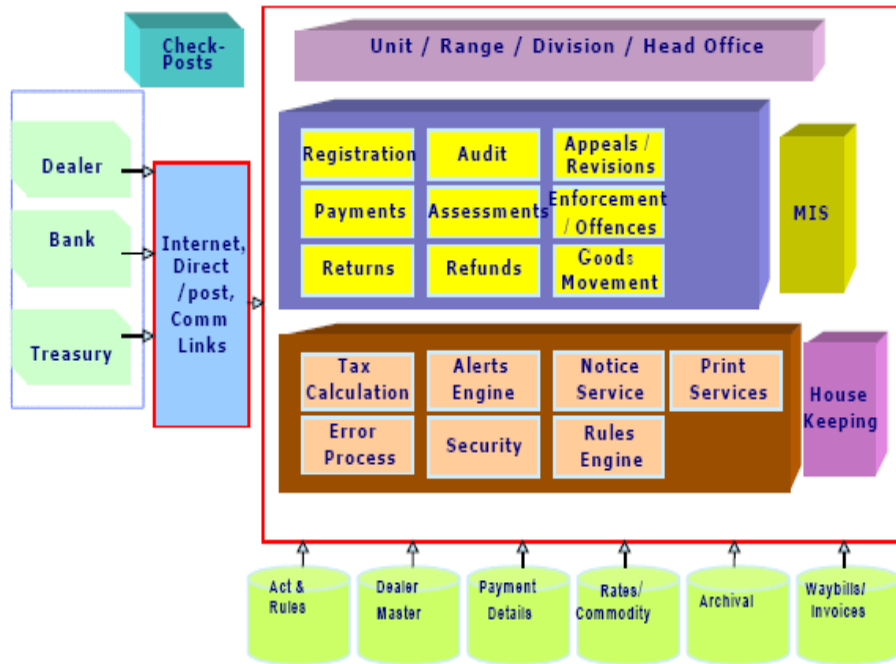


Table 4: List of VAT offices in Bihar

Bihar VAT Circle offices/ Commercial Tax Circle office		2	Hazipur
Sl. No.	Patna HQ	3	Raxaul
1	Patna HQ	4	Motihari
Sl. No.	Circles under Darbhanga Division	5	Betiha
1	Darbahanga	6	Bagha
2	Madhubani	7	Chapra
3	Samastipur	8	Siwan
4	Begusarai	9	Gopalganj
5	Teghra	10	Sitamarhi
6	Jhanjapur	11	Allied offices (IB / Monitoring / Appeal) and Audit
7	Dalsingsarai		
8	Allied offices (IB / Monitoring / Appeal) and Audit		
Sl. No.	Circles under Tirhut division	Sl. No.	Circles under Patna Division
1	Muzaffarpur	1	Patliputra
		2	Patna Citywest
		3	Patna City east
		4	Patna South
		5	Patna West
		6	Patna north
		7	Danapur



8	Ara
9	Buxar
10	Barh
11	Allied offices (IB / Monitoring / Appeal) and Audit

4	Saharsa
5	Kisanganj
6	Madhepura
7	Purnia
8	Allied offices (IB / Monitoring / Appeal) and Audit

Sl. No.	Circles under Gaya Division
1	Sasaram
2	Biharsarif
3	Jahanabad
4	Aurangabad
5	Nalanda
6	Bhabhua
7	Allied offices (IB / Monitoring / Appeal) and Audit

Sl. No.	Circles under Bhagalpur Division
1	Bhagalpur
2	Mungar
3	Lekhisarai
4	Jamui
5	Allied offices (IB / Monitoring / Appeal) and Audit

Sl. No.	Circles under Purnia division
1	Khagaria
2	Farbisdang
3	Katihar

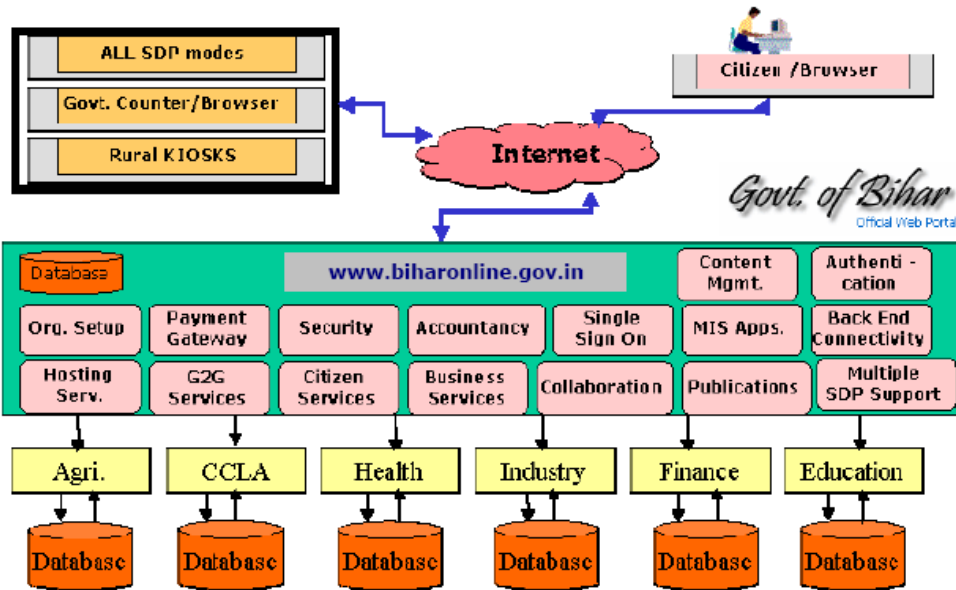
Sl. No.	Patna Central Division
1	Patna Special Circle
2	Allied offices (IB / Monitoring / Appeal) and Audit

Note : The department may increase the number of locations in future; the selected bidder will have to extend the listed technical managed services for the new offices as part of this RFP. The department will be opening 4 new offices in coming financial year as part of expansion plan and similarly during the contract period of 3 years.

Successful bidder will provide Local Area Network at all VAT offices mentioned in Table-4

BiharOnline is the proposed digital gateway for the GoB to offer multiple services, through a single window, to its citizens. The portal will redefine governance and the government citizen interface in Bihar. BiharOnline will be comprehensive in scope and offer a variety of informative, interactive and payment services to the citizens and businesses across the state. It will be easily accessible through multiple delivery channels (SDPs, cyber cafes, government counters), homes and offices, anytime, anywhere, to deliver services at citizens' homes.

Figure 3: Schematic View of BiharOnline Portal Deployment Architecture:



3.3 Integrated Workflow and Document Management System (IWDMS). The implementation of iWDMS for the following departments:

- Chief Minister's Secretariat
- Chief Secretary's Secretariat (Cabinet Secretariat and Coordination Department)
- Finance Department
- Personnel and Administrative Reforms Department
- Home Department
- Planning and Development Department
- Law Department.

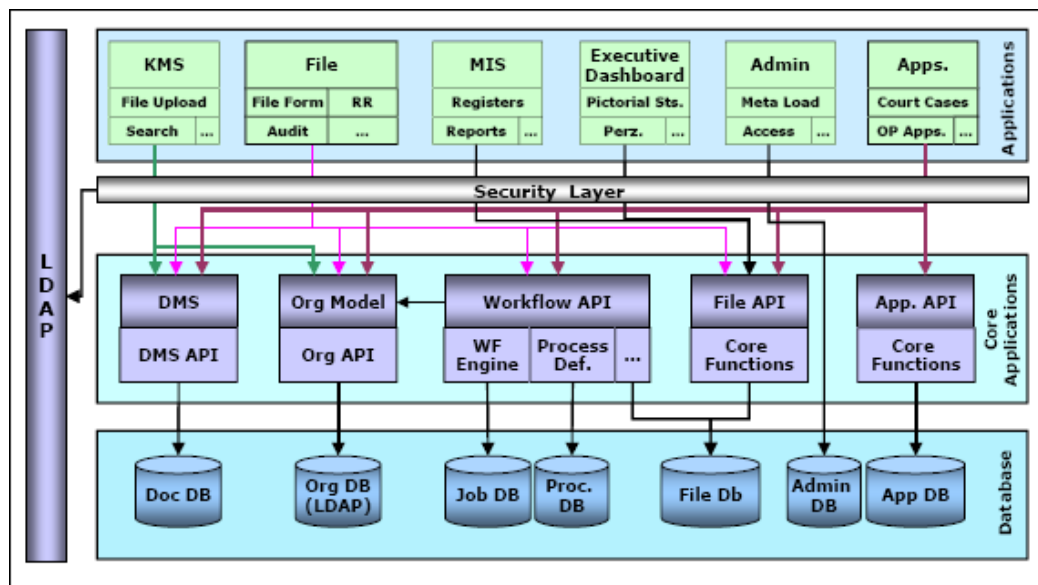
iWDMS is a multilingual product for automating the functions at all levels of the administrative hierarchy of any governmental department. iWDMS provides Document Management, Workflow Management, Collaborative Environment and Knowledge Management in an integrated fashion and delivers an electronic workplace to the end-user in the department concerned. By implementing iWDMS, Government of Bihar will achieve the following objectives: -

- Ensure effective, efficient & transparent administration
- Create an automated Office Management System
- Enhance productivity



- Enable prioritisation of work
- Use IT as an enabler to help in daily work
- Design an efficient workplace
- Enable Policy Based Processing
- Provide a mechanism for information and experience sharing
- Generating effective MIS to aid the senior management
- Helping in effective collaboration between various personnel.

Figure 4: Schematic View of iWDMS Architecture:



3.4 Current RFP requirements:

- **Data Center at Technology Bhawan, Patna**
 - The following physical infrastructure is required for setting up Data Center.
 - Data Center Room – Server Farm Area
 - Data Center Room – Storage Area (SAN / NAS)
 - Data Center Room – Data Communication Equipment Area
 - Database Administrators, System Administrators and Application Server Administrators Room & Network Operations Control (NOC) Room
 - Data Center Operators Area
 - Backup & Media Storage Area
 - UPS & Power Backup Equipment Storage Area



- Hardware – Database Servers, Application Servers, Web Servers Switch, SAN, IPS, DC's, Anti-virus Gateway, Email, Firewall, Fiber storage Switch etc.,
 - System Software – Database Software, Application Server Software, Web Server Software, Anti-virus, DC, Messaging solution, NMS, etc.,
 - System Administration, Database Administration, Security Administration, Facility Management Services, etc.,
 - Management and maintenance of above site for 3 years.
- **Technology Facility Management Services**
 - The bidder has to provide FMS for the following departments and government offices for a period of 3 years.
 - Value Added Tax Department: (Total Number of offices 52, approximate no of PCs 600)
 - Treasury Offices: (Total number of offices 42 approximate no of PCs 500)
 - District Magistrate office: (Total number of offices 38 approximate no of PCs 1000)



Section 4

Instructions to Bidders



Instructions to Bidders

4.1. Definitions

In this document, the following terms shall have following respective meanings:

1. **“Acceptance Test Document”** means a mutually agreed document, which defines procedures for testing the DC against requirements laid down in the Agreement.
2. **“Affiliate”** shall mean any holding company or subsidiary company of a part to the Agreement or any company, which is subsidiary of such a holding company. The expressions "holding company" and “subsidiary company” shall have the meaning specified in section 4 of the Companies Act 1956 (as amended from time to time).
3. **“Agreement”** means the Agreement to be signed between the successful bidder and BSEDC including all attachments, appendices, all documents incorporated by reference thereto together with any subsequent modifications, the RFP, the bid offer, the acceptance and all related correspondences, clarifications, presentations.
4. **“Authorised Representative”** shall mean any person authorised by either of the parties.
5. **“Bidder”** means any firm or group of firms (called Consortium) offering the solution(s), service(s) and /or materials required in the RFP. The word Bidder when used in the pre award period shall be synonymous with Bidder or operator or service provider, and when used after award of the Contract shall mean the successful Bidder or operator or service provider with whom BSEDC signs the agreement for rendering of services for DC & FMS.
6. **“BeST”** means **Bihar e-Governance Services & Technologies Limited**, a Joint Venture Company between Government of Bihar and Infrastructure Leasing and Financial Services Limited and consultant to Data Center Project.
7. **“Contract”** is used synonymously with Agreement.



8. **“Corrupt Practice”** means the offering, giving, receiving or soliciting of any thing of value or influence the action of an official in the process of Contract execution.
9. **“Default Notice”** shall mean the written notice of Default of the Agreement issued by one Party to the other in terms hereof.
10. **“Fraudulent Practice”** means a misrepresentation of facts in order to influence a procurement process or the execution of a Contract and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the BSEDC of the benefits of free and open competition.
11. **“Good Industry Practice”** shall mean the exercise of that degree of skill, diligence and prudence which would reasonably and ordinarily be expected from a reasonably skilled and experienced Bidder engaged in the same type of undertaking under the same or similar circumstances.
12. **“GoI”** shall stand for the Government of India.
13. **“Implementation Period”** shall mean the period from the date of signing of the Agreement and up to the issuance of Final Acceptance Certificate of DC.
14. **"Law"** shall mean any Act, notification, bye law, rules and regulations, directive, ordinance, order or instruction having the force of law enacted or issued by the Central Government and/ or the Government of Bihar or any other Government or regulatory authority or political subdivision of government agency.
15. **“LOI”** means issuing of Letter of Intent, which shall constitute the intention of the Tenderer to place the Purchase Order with the successful bidder.
16. **"Bidder"** means the company providing the services under Agreement.
17. **"Party"** means BSEDC or Bidder, individually and “Parties” mean BSEDC and Bidder, collectively.
18. **“Period of Agreement”** means 3 years from the date of final acceptance of the DC and FMS.
19. **“Proposal”** means the Technical Proposal and the Financial Proposal.
20. **“Request for Proposal (RFP)”**, means the detailed notification seeking a set of solution(s), services(s), materials and/or any combination of them.
21. **“Requirements”** shall mean and include schedules, details, description, statement of technical data, performance characteristics, standards (Indian as well as International) as applicable and specified in the RFP.



22. **“Site”** shall mean the location(s) for which the Contract has been issued and where the service shall be provided as per agreement.
23. **“DC”** means Data Center to be located at a place as decided by BSEDC.
24. **“SLA”** means Service Level Agreement entered between DC and the bidder for provision of services as per this RFP.
25. **"Service"** means provision of Contracted service viz., operation, maintenance and associated services for DC as per this RFP.
26. **"Third Party Agency"** means any agency other than the successful bidder, appointed by BSEDC for monitoring the DC during commissioning and operation. Bihar e-Governance Services & Technologies Limited (BeST), a joint venture company between Government of Bihar and IL&FS is appointed as Third Party Agency to oversee the operations and monitoring of the BRAIN DC project by BSEDC.
27. **“Termination Notice”** means the written notice of termination of the Agreement issued by one Party to the other in terms hereof.
28. **"Uptime"** means the time period when specified services/network segments with specified technical and service standards as mentioned in this RFP are available to BSEDC. The uptime will be calculated as follows: Total time in a quarter (in minutes) less total Service Down time (in minutes) in the quarter.
29. **"%Uptime"** means ratio of 'up time' (in minutes) in a quarter to Total time in the quarter (in minutes) multiplied by 100.
30. **"Service Down Time"** (SDT) means the time period when specified services/network segments with specified technical and operational requirements as mentioned in this document are not available to Bihar Govt. The network shall be operational on all days of a year and 24-hours/ day with in the uptime specified in the Service Level Agreement (SLA). The DC is considered as operational when all facilities at Data Center are working, providing all/ specified services as mentioned in full capacity.
31. **“BSEDC or BELTRON”** means Bihar State Electronics Development Corporation Limited, State level agency nominated by Government of Bihar as implementation agency for DC.
32. **“GOB”** means Government of Bihar.
33. **FMS** means Technology Facility Management Services to be provided by the bidder at specified locations as per the RFP requirements.



4.2. Bid Documents

Bidder is expected to examine all instructions, forms, terms, and requirements in the bid document. Failure to furnish all information required by the bid document or submit a Bid not substantially responsive to the bid document in every respect may result in the rejection of the Bid. The bids should be submitted in three parts as mentioned hereunder on or before 5.00 PM, 21st February 2007.

A. Pre-qualification bid as per eligibility criteria specified

1. A letter on the bidder's letter-head (Appendix – 1)
 - i. Describing the pre-qualifying technical competence and experience of the bidder,
 - ii. Certifying that the period of validity of bid is 180 days from the last date of submission of bid, and
 - iii. Asserting that the bidder is quoting for all the items (including services) mentioned in the tender.
2. The profile of the bidder (template given in Appendix -2)
3. Audited annual financial results (balance sheet and profit & loss statement) of the bidder for the last three financial years. (Template provided in Appendix 3)
4. The bid security in the form of a Bank Guarantee / Demand draft issued by a Nationalized / Scheduled Bank, in favour of Bihar State Electronics Development Corporation Limited, payable at Patna. (Template provided in Appendix 14)
5. Quality certification in delivery of services sought under this RFP, from an internationally recognized/reputed agency, e.g. ISO 9001, ITIL
6. Manufacturer's authorization form(s) (template provided in Appendix -4)
7. Reference list of major clients (using equipment/services similar to Bihar's requirement). (Template provided in Appendix 5)
8. Solvency Certificate
9. Power-of-attorney granting the person signing the bid the right to bind the bidder as the 'Constituted attorney of the Directorate'.



10. Permanent Account Number (PAN) from INCOME TAX authorities of area of operation of the bidder.
11. A copy of the RFP, all pages duly signed by the authorized signatory towards acceptance of the terms and conditions of the RFP. **Only one signed copy of RFP should be enclosed with the original Pre-qualification bid.**

B. Technical bid

- a. Bid particulars
- b. Bid letter
- c. Proposed Data Center Design, Deployment model and Architecture, Network Architecture, Technical Solution, details of equipment and services offered and other details per the Technical evaluation matrix.
- d. Unpriced Bill of Material (BOM)
- e. Qualification and Deployment Schedule of the staff proposed for the project (Appendix 6 and 7)
- f. Proposed Project Plan and Implementation Schedule
- g. Statement of deviation from requirement specifications (Appendix 8)
- h. Statement of deviation from tender terms and conditions (Appendix 9)
- i. Schedule of delivery
- j. Warranty
- k. Manufacturer's authorization form(s).

C. Commercial bid

- a. Bid letter
- b. Bid particulars including priced Bill of Material (BOM) (template provided in Appendix 13)
- c. Statement of commercial deviation (template provided in Appendix 11)
- d. Commercial Quotation (template Provided in Appendix 12)



Bidders should enclose with their offers full details of all the equipment and services offered as well as their latest equipment and services available with full documentation and descriptive literature supplementing the description and point out any special feature of the equipment and services. All documentation is required to be in English.

4.3. Pre-bid Conference (PBC)

- (i) Tenderer shall hold a pre-bid conference (PBC) after the sale of the RFP document as per schedule mentioned in this RFP. In this PBC, Tenderer would address the clarifications sought by the bidders with regard to the RFP document and the project. The bidders would be required to submit their queries to the Managing Director, Bihar State Electronics Development Corporation Limited in writing to be received at least 2 (two) days prior to the PBC. Queries not submitted within this deadline may not be taken up at the PBC. Queries should be submitted in the enclosed format (template provided in Appendix-16)
- (ii) Tenderer will entertain queries of and clarifications sought by only those bidders who have purchased this RFP document. Bidders that have purchased the RFP document are welcome to attend the PBC, even if they do not have any specific queries.
- (iii) Tenderer reserves the right not to respond to any/all queries raised or clarifications sought if, in their opinion and at their sole discretion, they consider that it would be inappropriate to do so or do not find any merit in it. The minutes of the PBC shall be circulated by tenderer to all those companies who have purchased this RFP document and also host the same on the website www.beltron.in.

4.4. Amendment of Bid Documents

The amendments in any of the terms and conditions including technical specifications of this RFP document will be notified in writing either through post or by fax or by email or publish through website to all prospective bidders who have purchased the tender documents and will be binding on them.



4.5. Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its Proposal, including the cost of presentation for the purposes of clarification of the bid, if so desired by the BSEDC. The BSEDC will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bid process.

4.6. Cost of Bid Document

The cost of Bid document is Rs. 25000 (Twenty five thousands only), the document can be purchased from the office of Managing Director, Bihar State Electronics Development Corporation, BELTRON Bhawan, Shastrinagar, Patna during office hours from 30th January 2007 to 21st February 2007 and the document is also uploaded on www.beltron.in. In case the RFP document is downloaded the bidder has to enclose a Demand Draft in favour of MD, BSEDC payable at Patna along with pre-qualification proposal. But for attending the pre-bid conference the bidders have to purchase the document.

4.7. Bid Security i.e. Earnest Money Deposit (EMD)

- a) The Bid security shall be in Indian rupees (INR) and shall be a Bank Guarantee / Demand Draft, issued by a nationalized bank in India and shall be valid for at least six months. No interest shall be payable on Bid Security under any circumstance.
- b) The bidder shall furnish, as part of his bid, a bid security in the form of Bank Guarantee / Demand Draft of Rs. 30,00,000/- (Thirty Lakhs only). The template of bank guarantee is provided in Appendix - 14
- c) Unsuccessful Bidder's Bid security shall be discharged or returned within sixty (60) days after the expiration of the period of Bid validity prescribed by BSEDC.
- d) The successful Bidder's Bid security shall be discharged upon the Bidder signing the Agreement.
- e) The Bid security will be forfeited at the discretion of BSEDC on account of one or more of the following reasons:
 - o The Bidder withdraws their Bid during the period of Bid validity
 - o Bidder does not respond to requests for clarification of their Bid
 - o Bidder fails to co-operate in the Bid evaluation process, and



- f) In case of a successful Bidder, the said Bidder fails:
 - o to furnish Implementation Guarantee; or
 - o to sign the Agreement in time

4.8. Bid Prices

- a) The Price Bid as prescribed should be filled up and sealed along with enclosures in a separate cover superscribed as **“Price Bid – Envelop B, Tender No : DC / BELTRON 2007 / 02 “NOT TO BE OPENED BEFORE 07-03-2007 at 3.00 PM,”**.
- b) The prices quoted by the bidder shall be in sufficient detail to enable the Tenderer to arrive at the price of equipment/system offered.
- c) The covers received without superscription are liable for rejection. The tenders not submitted as specified above will be summarily rejected.
- d) If any or all of the information asked in the RFP are not available in the Commercial Proposal the bid is liable for rejection.

4.9. Discounts

The Bidders are informed that discount, if any, should be merged with the quoted prices. Discount of any type, indicated separately, will not be taken into account for evaluation purposes.

4.10. Bid validity

The bids shall remain valid for a period of 180 days from the last date of submission of tender.

4.11. Submission of Proposals

- a) All the proposals will have to be submitted in **hard bound** form with **all pages numbered**. It should also have an **index giving page wise information of above documents**. Incomplete proposal will summarily be rejected.
- b) Number of Copies of Bid
 - o The Bidder shall prepare one original and two hard copies of the following bids along with a soft copy in CD:



- **Pre Qualification Bid** clearly marking “Pre Qualification Bid- Original Copy and Pre Qualification Bid- Copy of Bid”.
 - **Technical Bid** separately, clearly marking "Technical Bid – Original Copy" and "Technical Bid –Copy of Bid".
 - **Financial Bids**, clearly marking "Financial Bid I– Do not open with Technical Bid".
- c) No bid will be considered unless and until each page of the bid document is duly signed by the authorized signatory. The bidder shall also submit the soft copy of Pre-qualification, technical and commercial bids on separate CDs duly packed in the respective envelopes.
- d) Prices should not be indicated in the Technical Bid.
- e) All the columns of the quotation form shall be duly, properly and exhaustively filled in. The rates and units shall not be overwritten. Rates shall always be both in the figures and words.
- f) The proposals shall be submitted in three parts, viz.,
- **Envelope - 1:** Pre- qualification documents super scribed as “**Envelope 1- Pre- qualification Documents**” containing EMD, Pre-qualification documents complete with all details.
 - **Envelope 2:** - Technical Proposal super scribed as “**Envelope 2 – Technical Proposal**”, complete with all technical details”. In the technical proposal, there should not be any indication about the prices of any of the products offered.
 - **Envelope-3:** Commercial Proposal containing Price Schedule super scribed as “**Envelope 3 – Commercial Proposal**”.

All the three sealed envelopes should again be placed in a single sealed envelop super scribed as “**DC Tender No DC / BELTRON 2007 / 02, Bid from: _____)**” “**NOT TO BE OPENED BEFORE 22-02-2007 at 2.00 PM**, which will be received in the office of

The Director

Bihar e-Governance Services & Technologies Limited

BELTRON Bhawan, Shastri Nagar

PATNA, BIHAR - PIN CODE-800023

Tel No: - 0612-2281856, 0612-2281857

Fax No: - 0612-2281857

e-mail:-best@ilfsets.com Web Site: - www.beltron.in



up to the due date and time mentioned in the Schedule of Events (Section-IV – 4.19) of this document.

4.12. Language

The Bids and all correspondence and documents relating to the bids, shall be written in the English language. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in English language. ***There should be proper page numbering on every page of Pre-qualification, Technical and Financial Bids, so that proper referencing can be done.***

4.13. Late Bids

Any bid received by the Tenderer after the time and date for receipt of bids prescribed in the RFP document will be rejected and returned unopened to the Bidder.

4.14. Modification and withdrawal of Bids

- a) The Bidder is allowed to modify or withdraw its submitted bid any time prior to the last date prescribed for receipt of bids, by giving a written notice to the Tenderer.
- b) Subsequent to the last date for receipt of bids, no modification of bids shall be allowed.
- c) The Bidders cannot withdraw the bid in the interval between the last date for receipt of bids and the expiry of the bid validity period specified in the Bid. Such withdrawal may result in the forfeiture of its EMD from the Bidder.

4.15. Bid Forms

- a. Wherever a specific form is prescribed in the Bid document, the Bidder shall use the form to provide relevant information. If the form does not provide space for any required information, space at the end of the form or additional sheets shall be used to convey the said information.



- b. For all other cases, the Bidder shall design a form to hold the required information.
- c. BSEDC shall not be bound by any printed conditions or provisions in the Bidder's Bid Forms

4.16. Local Conditions

- a. Each Bidder is expected to fully get acquainted with the local conditions and factors, which would have any effect on the performance of the contract and /or the cost.
- b. The Bidder is expected to know all conditions and factors, which may have any effect on the execution of the contract after issue of Letter of Award as described in the bidding documents. The tenderer shall not entertain any request for clarification from the Bidder regarding such local conditions.
- c. It is the Bidder's responsibility that such factors have properly been investigated and considered while submitting the bid proposals and no claim whatsoever including those for financial adjustment to the contract awarded under the bidding documents will be entertained by the Tenderer. Neither any change in the time schedule of the contract nor any financial adjustments arising thereof shall be permitted by the Tenderer on account of failure of the Bidder to know the local laws / conditions.
- d. The Bidder is expected to visit and examine the location of State offices and its surroundings and obtain all information that may be necessary for preparing the bid at their own interest and cost.

4.17. Contacting the Tenderer

- a) Any effort by a Bidder influencing the Tenderer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the bid.
- b) Bidder shall not approach Bihar officers after office hours and/ or out side Bihar office premises, from the time of the bid opening till the time the Contract is awarded.



4.18. Eligibility Criteria

For each category of pre qualification criteria, the documentary evidence is to be produced duly certified-signed in ink with seal by authorized signatory of the Bidder(s), serially numbered and enclosed with pre-qualification / technical bids. If the documentary proof is not enclosed for any / all criteria the Tender is liable for rejection.

The bidder shall meet the following criteria for eligibility:

- a. The bidder should be an individual organization, Consortium is not allowed.
- b. The bidder should be in existence for at least 5 year.
- c. The bidder should be Information Technology or IT Services Company.
- d. The bidder should have annual sales turnover of INR 200 Crores and above in the last three financial years.
- e. The bidder must have successfully completed /executed / or executing at least any one of the following for Data Center Projects
 - i. 1 Data Center Project minimum Rs. 25 Crores
 - ii. 2 Data Center Project minimum Rs. 10 Crores
 - iii. 3 Data Center Project minimum Rs. 7 CroresAnd at least one of the following for Technology Facility Management Projects
 - i. 1 Technology FMS project minimum Rs. 2 Crores
 - ii. 2 Technology FMS projects minimum Rs. 60 Lakhs
 - iii. 3 Technology FMS projects minimum Rs. 20 Lakhs
- f. References (contact details, customer completion certificate, customer satisfaction certificate etc) for these projects shall be provided. Projects executed for bidder's own, bidder's group of companies or bidder's JV companies shall not be considered.
- g. The bidder should have direct authorization from the Original Equipment Manufacturer (OEM) for selling and supporting the components offered. The OEM should give 3 year warrantee on all the products and supporting components supplied through this tender.
- h. The bidder must have had at least 300 employees on roll over each of the last three years (as on March 31, 2004, 2005 & 2006)
- i. The bidder shall have Quality certification from an accredited and internationally reputed / renowned firm (viz. ISO 9001)



- j. The bidder should have office in Bihar. In case bidder has no presence in Bihar, bidder shall furnish an undertaking that an office shall be opened in Bihar, with sufficient personnel and inventory of spares within a month of selection as Successful Bidder.
- k. The bidder shall have latest bank's certificate of solvency issued by schedule bank.
- l. The bidder must have company registration certificate, registration under Labour Laws Contract Act, valid sales tax registration certificate and valid service tax registration certificate.

4.19. Schedule of Events

Table 5: Schedule of Events

Sr. NO	Events	Date
1	Last date for submission of queries	9 th February 2007 5.00 PM
2	Pre-bid Conference at the BELTRON premises	12 th February 2007 4.00 PM
3	Last date and time of proposal Submission	21 st February 2007 at 5.00 PM
4	Date and time of opening of the Prequalification Documents at BELTRON Premises	22 nd February 2007 at 2.00 PM
5	Date and time of opening of the Technical Proposals at BELTRON Premises	28 th February 2007 at 3.00 PM
6	Date of opening of the Commercial Proposal at BELTRON premises	7 th March 2007 at 3.00 PM
7	Contract Signing	12 th March 2007

4.20. Opening of Proposal

First, the envelope containing pre-qualification will be opened and if found that the bidder meets the eligibility criteria and has furnished all the documents in the prescribed manner, then the second envelope containing Technical Proposal shall be



opened. The time for opening the technical bid will be at the sole discretion of evaluation committee. The commercial bid would be opened in presence of technically short listed bidders. The Evaluation Committee or its authorized representative will open the tenders. Sequence of opening shall be as follows:

- o Pre-qualification
- o Technical Proposals
- o Commercial Proposals

4.21. Evaluation

An evaluation committee so constituted by Bihar will evaluate the bids i.e. technical and commercial as per the following pattern.

- a) Conditional bids shall be summarily rejected.
- b) Evaluation committee will examine the bids to determine whether they are complete, whether any computational errors have been made, and whether the bids are generally in order.
- c) Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the Bidder does not accept the correction of the errors, his bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.
- d) The tenderer may conduct clarification meetings with each or any bidder to discuss any matters, technical or otherwise.
- e) Further, the scope of the evaluation committee also covers taking of any decision with regard to the RFP, execution/ implementation of the project including management period.
- f) Bid shall be opened on the day of opening of the bids at 22nd February 2007 on 2.00 PM in the presence of bidders representatives who intend to attend at their cost. The bidders' representatives who are present shall sign a register evidencing their attendance.
- g) Bid document shall be evaluated as per the following steps.
 - (a) **Preliminary Examination and Evaluation of Pre-qualification documents:** The Pre-qualification document will be examined and



evaluated to determine whether the bidder meets the eligibility criteria, completeness of the bid, whether the documents have been properly signed and whether the bids are generally in order. Any bids found to be non-responsive for any reason or not meeting the minimum levels of the performance or eligibility criteria specified in the various sections of this RFP will be rejected and not included for further consideration.

- (b) **Technical Proposal Evaluation of document:** A detailed evaluation of the bids (Technical Proposal) shall be carried out in order to determine whether the bidders are competent enough and whether the technical aspects are substantially responsive to the requirements set forth in the RFP. Bids received would be assigned scores based on the parameters defined in table below.

Table 6: Technical Proposal Evaluation Matrix

Datacenter	Base Score	Vendor X	Reference Page No of Tech proposal
1. Company Information & Financial Information			
Existing Organization Strength (Manpower, Quality Certification etc..)			
Overall exposure to Government sector			
Services department/division			
Score	5	-	-
2. Financial Profile			
Turnover of Rs. 200 Crores			
Turnover from IT Infrastructure Services			
Turnover from Managed Services and FMS			
Score	5	-	-
3. Technical Capabilities			
3.1 Data Center Projects Executed or Executing (Technical Capability)			
Projects Value 25 Crores and above	--	--	--
Number of Projects executed			
Scope of Work			
Time lines			
Client Satisfaction letter enclosed			
SLA audit records of projects undertaken			
Projects Value 10 Crores and above			
Number of Projects executed			
Scope of Work			
Time lines			



Client Satisfaction letter enclosed			
SLA audit records of projects undertaken			
Projects Value 7 Crores and above			
Number of Projects executed			
Scope of Work	--	--	--
Time lines			
Client Satisfaction letter enclosed			
SLA audit records of projects undertaken			
Score	30	-	-
3.2 FMS Projects Executed or Executing (Technical Capability)			
Projects Value 2 Crores and above	--	--	--
Number of Projects executed			
Scope of Work			
Time lines			
Client Satisfaction letter enclosed			
SLA audit records of projects undertaken			
Projects Value 60 Lakhs and above			
Number of Projects executed			
Scope of Work			
Time lines			
Client Satisfaction letter enclosed			
SLA audit records of projects undertaken			
Projects Value 20 Lakhs and above			
Number of Projects executed			
Scope of Work	--	--	--
Time lines			
Client Satisfaction letter enclosed			
SLA audit records of projects undertaken			
Score	15	-	-
3.3 Technical Solution Proposed			
Compliance of Specifications in RFP			
Additional Features offered			
Technical Architecture			
Standards & Industry practices			
General Documentation			
Quality control procedures			
Deployment rules			
Designs documentation			
Validation and Verification Procedures			
SLA Implementation Scheme offered			
Time Schedule for implementation of the project			
Score	20	-	-
3.4 Project Manpower Proposed			
Organization Chart			
Roles & Responsibilities – SI			
Roles & Responsibilities - Sub-Contractors			
Roles & Responsibilities – Software Vendor			



Roles & Responsibilities – Hardware Vendor			
Resource Plan – SI			
Resource Plan – Sub-Contractors			
Resource Plan - Software Vendor			
Resource Plan - Hardware Vendor			
Mapping of Resumes to Roles			
Proposed Project Team & Resume Review	--	--	--
Civil / Electrical / Air Conditioning Engineers			
Vendor/Sub Project Manager(s)			
Technical Architect(s)			
System Administrators			
Database Administrators			
Security Specialist			
Network Specialist			
Support and Maintenance Team			
Good mix of Government vs. Commercial experience			
Score	15	-	-
3.5 Training & Knowledge Transfer			
Training:	--	--	--
Approach			
Timeline			
Deliverables			
Documentation			
Knowledge Transfer:	--	--	--
Approach			
Processes & Tools			
Performance measurements			
Score	5	-	-
3.6 Post Implementation Approach			
Help Desk Support			
Configuration Management			
Infrastructure Support			
System/Database Support			
Score	5		
Total Score	100	-	-

Quality and Cost base selection (QCBS)

The individual bidder technical scores will be normalized as per the formula below

$$T_n = T_b / T_{max} * 100$$



Where

T_n = normalized technical score for the bidder under consideration

T_b = absolute technical score for the bidder under consideration

T_{max} = maximum absolute technical score obtained by any bidder

The technical scores of the bidder against each criteria would be then totalled up, and thereafter the technical scores of all the bidders would be listed in decreasing order.

Any proposal achieving a Total Technical Score (T) less than 70 will be treated as Not Substantially Responsive and will not be considered further. Only the technically qualified bidders will be informed for opening of the price bid.

No further discussion/interface will be held with the bidder whose bid has been technically disqualified / rejected.

Evaluation of Commercial Bids

Commercial bids of those bidders who qualify the technical evaluation will only be opened. All other Commercial bids will be returned un-opened. The place, date and time for the opening of the financial bids shall be announced separately.

The commercial scores will be calculated as

$$\mathbf{F_n = F_{min} / F_b * 100}$$

Where

F_n = Normalized financial score of the bidder under consideration

F_b = Evaluated cost for the bidder under consideration

F_{min} = Minimum evaluated cost for any bidder

Evaluation of Bid - Final Evaluation the overall score will be calculated as follows:-

$$\mathbf{B_n = W_t * T_n + W_c * F_n}$$

The technical weightage is 75 and Commercial weightage is 25.



Where

B_n = overall score of bidder under consideration

T_n = normalized technical score for the bidder under consideration

F_n = Normalized financial score of the bidder under consideration

W_t = Weightage for technical score

W_c = Weightage for commercial score

Final Selection of Bidder will be done based on added individual score achieved by the bidder in technical evaluation and commercial evaluation scores and highest score (B_n) will be awarded the contract. BSEDC (BELTRON) reserves the right to award the contract to the bidder with the highest score, or negotiate with one or more bidders in the descending order of score. Negotiated offer, if any, or else the original bid offer shall be treated as the final offer.

4.22. Deciding Award of Contract

- a) The Tenderer reserves the right to ask for a technical elaboration/clarification in the form of a technical presentation from the Bidder on the already submitted Technical Proposal at any point of time before opening of the Commercial Proposal. The Bidder shall furnish the required information to *BSEDC* and its appointed representative on the date asked for, at no cost to the Tenderer. The Tenderer may at its discretion, visit the office / Network Operation Centre (NOC) of the Bidder for Services, any time before the issue of Letter of Award.
- b) *BSEDC* shall inform those Bidders whose proposals did not meet the eligibility criteria or were considered non-responsive, informing that their Commercial Proposals will be returned unopened after completing the selection process. *BSEDC* shall simultaneously notify those Bidders who had qualified the Evaluation process as described in this RFP, informing the date and time set for opening of Commercial Proposals. The notification may be sent by mail or fax.



- c) The bidder's names, the Bid Prices, the total amount of each bid, and such other details as the Tendering Authority may consider appropriate, will be announced and recorded by the Tenderer at the opening.

4.23. Confidentiality

- a) As used herein, the term “Confidential Information” means any information, including information created by or for the other party, whether written or oral, which relates to internal controls, computer or data processing programs, algorithms, 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. It is the express intent of the parties that all the business process and methods used by the Bidder in rendering the services hereunder are the Confidential Information of the Bidder.
- b) The Bidder shall keep confidential any information related to this tender with the same degree of care as it would treat its own confidential information. The Bidders shall note that the confidential information will be used only for the purposes of this tender and shall not be disclosed to any third party for any reason whatsoever.
- c) At all times during the performance of the Services, the Bidder shall abide by all applicable security rules, policies, standards, guidelines and procedures. The Bidder should note that before any of its employees or assignees is given access to the Confidential Information, each such employee and assignees shall agree to be bound by the term of this tender and such rules, policies, standards, guidelines and procedures by its employees or agents.
- d) The Bidder should not disclose to any other party and keep confidential the terms and conditions of this Contract agreement, any amendment hereof, and any Attachment or Annexure hereof.



- e) The obligations of confidentiality under this section shall survive rejection of the contract.

Note: The Bidder should conduct background checking for all the personnel deployed on the Data Center Site.

4.24. Publicity

Any publicity by the bidder in which the name of DC and FMS is to be used, should be done only with the explicit written permission from BSEDC.

4.25. Insurance

The equipment and services supplied under the contract shall be fully insured by the bidder 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 supplies are accepted and the rights of the property are transferred to BSEDC.

4.26. Arbitration

State and the selected bidder shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

If, after thirty (30) days from the commencement of such informal negotiations, State and the selected Bidder have been unable to amicably resolve dispute, either party may require that the dispute be referred for resolution to the formal mechanisms, which may include, but are not restricted to, conciliation mediated by a third party acceptable to both, or in accordance with the Arbitration and Conciliation Act, 1996.

All Arbitration proceedings shall be held at Patna, Bihar State, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be in English.



Section V

SPECIAL CONDITIONS OF CONTRACT

**Special Conditions of Contract**

The following clauses shall supplement the Instructions to Bidders.

5.1. Responsibility Matrix**Table 7: Responsibility Matrix**

Sr. No	Activity	BELTRON BSEDC State implementatio n agency	BeST (Consultant s) Third Party Monitoring	Bidder
1	Preparation of RFP for the Selection of DC, and Technology FMS Bidder		√	
2	Tender Process for the Selection of DC, Technology FMS Bidder	√	√	
3	Approval for Appointment of DC, and Technology FMS Bidder	√	√	
4	Review and suggestion on the DC Architecture		√	√
5	Site Identification	√	√	
6	Site Handover	√		√
7	Site Survey and Preparation			√
8	Installation and Commissioning of the DC			√
9	Monitoring the Installation and Commissioning of the DC	√	√	
10	Acceptance Tests		√	√
11	Onsite Inspection and Verification of Acceptance Tests	√	√	√



12	Trial Run		√	√
13	Witness of Trial Run	√	√	
14	Issue of Final Acceptance Test Certificate	√	√	
15	Operation, Management and Maintenance of the DC			√
16	Centralized Monitoring from DC operations control and NOC (24x7)			√
17	Supervision of the Monitoring of the DC		√	
18	Periodical Generation of DC operations and NMS report		√	√
19	Verification of the DC operations and NMS Report		√	
20	Approval of DC operations and NMS Report	√		
21	Periodical Auditing of the DC		√	
22	Submission of the Audited Report of DC as advised by Consultant		√	√

5.2. Consultancy (Third Party Monitoring Agency)

BSEDC shall appoint a Third Party Agency, which shall monitor the DC during implementation, commissioning and operation. The Third Party Agency shall also conduct the Final Acceptance Test as per the technical requirement of the Agreement and shall issue the Certificate of Completion for DC. Third Party Agency shall verify the services as mentioned in Section IV provided by the bidder. The bidder shall cooperate with such Third Party Agency. Third Party Agency will be responsible for verification, validation of all invoices under the



terms & conditions of the Agreement and will recommend on the eligible payment. Third party agency will be responsible for performance audit and will recommend release of payments to bidder.

5.3. Site Preparation and Site Survey

As per implementation plan, BSEDC shall arrange the necessary minimum constructed rooms/ space permanent construction for locating Data Center operation of the DC projects. The space cannot be used for any purpose other than for delivering the services as mentioned Section IV as contracted under the Agreement. BSEDC shall arrange for necessary clearances, which shall enable the Bidder to undertake civil, electrical, and mechanical works including false ceiling / flooring, partitioning, installation of air conditioning equipment, installation of diesel generator sets, installation of UPS equipment, cable laying etc., at the DC sites (as per the enclosed Technical Specifications). Infrastructure required for installation of equipment (for 7 persons) shall also be the responsibility of the Bidder.

The entry and exit to the site for the equipment and personnel of the Bidder shall be in accordance with Security Rules and Regulations that may apply to the Government Campus where the site is located.

BSEDC shall provide site readiness roadmap at the time of signing the contract. The Bidder will be responsible for site survey to identify the exact situation of the site and for ensuring site readiness for the implementation of the DC infrastructure. The Bidder would prepare a detailed report detailing status of the site.

The Bidder in his report detailing status of the site has to accord his acceptance for the site handed over by the State Government for DC implementation. If the site is not otherwise acceptable to the bidder, he has to give clearly the deficiencies and possible remedies to the State Government. On receipt of Bidder's Acceptance Report the State Government will initiate appropriate corrections or modifications for stated site deficiencies.



5.4. Acceptance Test

Acceptance Testing: The acceptance of the sites including DC site in accordance with the requirements in Section VI shall be conducted. After successful testing by the Third Party Agency a Final Acceptance Test Certificate shall be issued by BSEDC to the Bidder. The date on which Final Acceptance certificate is issued shall be deemed to be the date of successful commissioning of the DC.

The test shall include the following

1. All Civil, electrical, air conditioning, etc., are completed as per the industry standard and minimum specifications.
2. All hardware and software items must be installed at particular site as per the specifications.
3. Availability of all the defined services shall be verified. The successful bidder shall be required to demonstrate all the features/facilities/functionalities as mentioned in the RFP.
4. The third party monitoring agency in consultation with BSEDC shall define detailed test plan.
5. Successful bidder will arrange the test equipment required for performance verification. Successful bidder will also provide documented test results.
6. The successful bidder shall be responsible for the security audit of the network to be carried out by a certified agency other than the successful bidder.
7. All documentation as defined should be completed before the final acceptance test.
8. The training requirements as mentioned should be completed before the final acceptance test.

Any delay by the Bidder in the Final Acceptance Testing shall render the Bidder liable to the imposition of appropriate Penalties.



5.5. Performance Security for Operations

Within 15 days of the issuance of Letter of intent (Lol) the Bidder shall furnish revolving Performance Guarantee, as provided, to BSEDC for an amount equal to 10% of the arithmetic sum of 3 years of the bid amount according to the Agreement. The Performance Guarantee shall be valid initially for a period of one year. The guarantee shall be renewed year by year, at least 30 days before expiry date, for a minimum period of one year and thus cover the balance period of the agreement. The BSEDC may forfeit the Performance Guarantee for any failure on part of Bidder to complete its obligations under the Agreement. The Performance Guarantee shall be denominated in Indian Rupees and shall be in the form of a Bank Guarantee issued by a scheduled bank located in India with at least one branch office in Patna in the format provided by BSEDC. The Performance Guarantee shall be returned to the Bidder within 30 days of the date of successful discharge of all contractual obligations at the end of the period of the Agreement by BSEDC. In the event of any amendments to Agreement, the Bidder shall within 15 days of receipt of such amendment furnish the amendment to the Performance Guarantee as required.

5.6. Force Majeure

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 labour disputes, insurrections, civil commotion, war, enemy actions. If a Force Majeure arises, the Bidder shall promptly notify Tenderer in writing of such condition and the cause thereof. Unless otherwise directed by Tenderer, the successful bidder shall continue to perform his obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. The successful bidder 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.



5.7. Implementation Schedule

Table 8: Implementation Schedule

Sr NO	Activity	Completion Schedule
1	Start of Project Implementation	19 th March 2007
2	Site Preparation (Civil, Electrical, A/C, Interiors, and others) to be completed within 1.5 months	30 th April 2007
3	Dispatch and Installation of DC Hardware and Networking Hardware to the Data Center site.	15 th May 2007
4	Implementation and Commissioning of the Data Center	30 th May 2007
5	Acceptance testing	16 th June 2007
6	Trial Period and Commencement of Operation.	18 th June 2007

5.8. SLA Requirement

1. Service Level Agreement (SLA) is the contract between the BSEDC and the DC Implementation Agency (bidder). SLA defines the terms of the bidder's responsibility in ensuring the performance of the DC based on the agreed Performance Indicators as detailed in the Agreement. This section defines various Service Level Indicators for DC, which can be considered by the State in the Service Level Agreement with bidder.
2. The Table below summarizes the Indicative Performance Indicators for the services to be offered by the DC bidder. The detailed description of the performance indicators, SLA Terms and their definitions are discussed in the following sections.
3. Definitions
Service Level Agreements (SLAs) are agreed upon performance metrics subject to reporting and measurement, and subject to the service level penalties.



Service Level Objectives (SLOs) are agreed upon performance metrics subject to reporting and measurement, but not service level penalties.

4. Performance Metrics

The following metrics define the baseline requirements that will measure the effectiveness of the response time, performance, and availability governed by the SLAs.

Table 9: Service Type: Availability of Production and Reporting Environments

SLA	SLA Definition	SLA Metric	Measurement & Reporting	Comment/Assumption
99.5% quarterly Avg	Hours of Availability	Unless otherwise specified, the listed hours of availability: <ul style="list-style-type: none"> • Availability: Mon – Sat 8:00 AM – 10:00 PM PST • Availability: Sunday 8:00 AM – 8:00 PM PST 	Monitored daily, reported monthly	<ul style="list-style-type: none"> • All maintenance work to be performed during Maintenance Window • Backups will be required both prior to batch processing and after batch processing is completed. • “Business hours” to be calculated based on Hours of Availability

Table 10: Service Type: Data Center Network

SLA	SLA Definition	SLA Metric	Measurement & Reporting	Comment/Assumption
99.9% Monthly Avg	Network Availability	24 x 7 x 365	Monitored daily, reported monthly	<ul style="list-style-type: none"> • This refers to the Data Center Network only



Table 11: Service Type: Problem Management

SLA	SLA Definition	SLA Metric	Measurement & Reporting	Comment/Assumption
99.5%	Severity 1 Problem Response (Urgent)	<ul style="list-style-type: none"> Response time in 15 minutes Time to Fix - within 2 hours with a 4 hour max 	Monitored daily, reported monthly	<ul style="list-style-type: none"> Severity 1: Problems affecting mission critical processes
	Severity 2 Problem Response (High)	<ul style="list-style-type: none"> Response time in 1 hour Time to Fix - within 4 hours with an 8-hour max 		<ul style="list-style-type: none"> Severity 2: Problem affecting production online transaction processing
	Severity 3 Problem Response (Medium)	<ul style="list-style-type: none"> Response time in 3 hours Time to Fix - within 12 business hours with a 16 business hour max 		<ul style="list-style-type: none"> Severity 3: Problem affecting anything other than production online transaction processing
	Severity 4 Problem Response (Low)	<ul style="list-style-type: none"> Response time in 8 hours Time to Fix - within 30 business days 		<ul style="list-style-type: none"> Severity 4: No impact to service
	Severity 1 Root Cause Analysis	<ul style="list-style-type: none"> Root Cause Analysis performed within 10 business days 		



SLA	SLA Definition	SLA Metric	Measurement & Reporting	Comment/Assumption
		<ul style="list-style-type: none"> Changes in systems and policies recommended within 15 business days Changes in systems and policies implemented within 30 business days 		

Table 12: Service Type: Data Center Operations - Production Support

SLA	SLA Definition	SLA Metric	Measurement & Reporting	Comment/Assumption
SLA 99.9% Monthly Avg	Backups	<ul style="list-style-type: none"> Perform nightly incremental backups on all production environments, operating system, sub-systems, 3rd party software, applications software, databases and file 	Monitored and reported daily and averaged on a monthly basis	



99.9% Monthly Avg		<p>environments</p> <ul style="list-style-type: none"> • Perform weekly full volume cold backups on all production environments, operating system, sub-systems, 3rd party software, applications software, databases and file environments 	<p>Monitored and reported weekly and averaged on a monthly basis</p>	
99.9% Monthly Avg	Production Reporting Database	<ul style="list-style-type: none"> • Production Class reporting database environments will be refreshed real-time. 	<p>Monitored and reported weekly and averaged on a monthly basis</p>	
99.9% Monthly Avg	Database Restores	<ul style="list-style-type: none"> • Database restore process to begin 1 hour within restore request for restores to a point in time less than 	<p>Monitored and reported weekly and averaged on a monthly basis</p>	



		<p>7 days</p> <ul style="list-style-type: none"> • Database restore process to begin within 2 hours of restore request for restores to a point in time 7 or more days old 	<p>Monitored and reported weekly and averaged on a monthly basis</p>	
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Table 13: Service Type: Availability of Non-Production Environment

SLA	SLA Definition	SLA Metric	Measurement & Reporting	Comment/Assumption
98.5% Monthly Avg	Hours of Availability	<p>Unless otherwise specified, the listed hours of availability:</p> <ul style="list-style-type: none"> • Availability: Mon – Sat 8:00 AM – 10:00 PM PST • Availability: Sunday 8:00 AM – 8:00 PM PST 	Monitored daily, reported monthly	<ul style="list-style-type: none"> • All maintenance work to be performed during Maintenance Window • Backups will be required both prior to batch processing and after batch processing is completed. • “Business hours” to be calculated based on Hours of Availability • “Hours” refers to clock hours or



				contiguous hours
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Table 14: Service Type: Data Center Operations – Non-Production Support

SLA	SLA Definition	SLA Metric	Measurement & Reporting	Comment/Assumption
SLA 99% Monthly Avg	Backups— Non- production	<ul style="list-style-type: none"> Perform nightly incremental backups on all production environments , operating system, sub-systems, 3rd party software, applications software, databases and file environments Perform weekly full volume cold backups on all production environments , operating system, sub-systems, 3rd party software, applications 	<p>Monitored and reported daily and averaged on a monthly basis</p> <p>Monitored and reported weekly and averaged on a monthly basis</p>	



<p>98% Monthly Avg</p>	<p>Database Restores— Non-production</p>	<p>software, databases and file environments</p> <ul style="list-style-type: none"> • Database restore process to begin 1 hour within restore request for restores to a point in time less than 7 days • Database restore process to begin within 2 hours of restore request for restores to a point in time 7 or more days old 	<p>Monitored and reported weekly and averaged on a monthly basis</p> <p>Monitored and reported weekly and averaged on a monthly basis</p>	
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Table 15: Firewall Outage

SLA Parameter		Firewall Outage
Network Segment	Firewall Outage	Remarks
Internet Firewall Availability	0 %	SLA allows no down time in the Internet firewall availability.
Intranet Firewall Availability	0 %	SLA allows no down



		time in the Intranet firewall availability.
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Table 16: IPS Outage

SLA Parameter		IPS Outage	
Network Segment	IPS Outage	Remarks	
IDS for In Bound & Outbound Traffic	0 %	SLA allows no down time in the IPS deployed inbound traffic to DC.	

Denial of Service

Denial of Service (DoS) is the most common form of attack on the Network, which leads to network unavailability for the genuine network users. The operator shall respond to Denial of Service attacks reported by departments/DC users or DC maintenance personnel within 15 minutes of intimation to the helpdesk. The Denial of Service attack can be defined as sudden burst of network traffic leading to more than 90-95% utilization of the department users bandwidth in any segment or complete network. In such a scenario operator shall perform an analysis of the issue, verify whether the network utilization is due to genuine user requirements or it is a denial of service attack. In case it is identified as DoS attack, operator shall identify the source of Denial of Service attack, and shall disconnect the source or network from DC / SWAN backbone and resolve the issue to ensure availability and performance of the backbone.

Network Operations Management

The operator is required to establish Contact Centre (Helpdesk) at the Data Center level (*with a toll free number*) with an appropriate CRM Solution. The Helpdesk shall act as a SPOC (Single Point of Contact) for all the Network & Security related issues reported by the government departments or any other related stakeholders of the DC. DC Project Management Unit (PMU) established by the State shall monitor each issue need to be recorded in the CRM as a Service Request (with allocation of service request number) and the resolution timelines for such Service Requests.

Table 17: Network Operations Management



S.No	Severity	Initial Response Time	Issue Resolution Time
1	Level 1	15 Mins	1 Hr
2	Level 2	30 Mins	2 Hrs
3	Level 3	60 Mins	8 Hrs

Table 18: Severity Level Definition

Level 1:	The DC outage, security or performance related issues impacting the network availability/performance and leading to unavailability of the services in Data Center.
Level 2:	The DC outage, security or performance related issues impacting the network availability/performance and leading to unavailability of the services in one or more Departments.
Level 3:	The DC outage, security or performance related issues impacting the network availability/performance and leading to unavailability of the services to one or more users in the departments.

Other Information related to SLA management is provided below.

a. Capacity and Performance Management

The DC operator shall provide capacity planning services through network base lining and trending, to determine the resources required for DC and to plan and complete network upgrades before a capacity problem causes DC down time or performance problems. In addition to availability, latency, jitter and packet loss, DC operator shall monitor the network and dependent infrastructure (*resource*) utilization during successive time periods (*hour, day, week, month, and year*) and shall provide recommendations to State government on department infrastructure upgradation. DC operator shall perform the planned network upgrades with prior notification to the departments/users in the network segment (s) affected by the planned outages. DC operator should ensure that all the planned outages are performed only in the Extended SLA Hours and only the emergency upgrades are performed in the Prime Business Hours.



The overall responsibility of ensuring the DC performance rests with the DC operator and the following are critical areas in performance management which shall be monitored by the DC operator on a constant basis.

- CPU utilization
- Backplane or I/O
- Memory and buffers

b. Measurement of SLA

The Measurement of SLA shall be performed by a third party agency, independent of the DC Operator, to be identified by the State Government.

The Operator shall establish an Enterprise/Network Management System for monitoring and measurement of the SLA parameters identified for the DC.

c. SLA Reporting

For reports of performance of the Stat Data Center, the operator is required to setup a portal solution available to all stakeholders to be established at the State level for DC Implementation. This portal shall provide online performance and availability reports of DC.

d. DC Security Auditing

Upon completion of DC Installation and before the 'go-live' phase, it is mandatory for the DC operator to get the DC Infrastructure audited by a reputed third party agency from a security and business continuity perspective. Such Security audit shall include complete infrastructure established at the Data Center. The cost associated for auditing will be borne by BSEDC.

e. Certification

The DC operator is required to obtain certifications such as BS 7799 or IS 17799 for the processes and procedures established for monitoring and management of DC Infrastructure. The cost associated for auditing will be borne by BSEDC.



5.9. Penalties

The bidder shall be paid as per the services (i.e. availability) provided to the tenderer.

Table 19: Penalties

SI No	SLA description	Uptime	Penalty condition	Penalty value
1	Data centre facilities - AC, security etc	99.90%	Unplanned outages disrupting production environment, unscheduled maintenance/ enhancement work	2%
2	Data centre network availability incl. equipments, active and passive components etc	99.90%	Non availability of services, access to large number of departments unscheduled maintenance/ enhancement work	5-10%
3	Data centre servers - web servers, application servers, database servers	99.90%	Non availability of services, access to large number of departments slow response, capacity issues	5-10%
4	Data centre databases	99.90%	Non availability of services, access to large number of departments	5-10%
5	Data centre operations - backup, security patches, incident management etc	99.90%	Non availability of backup as per frequency/ procedures/ media /location - non adherence to standards	5%
6	Data centre reporting/ MIS/ corrective action	99.50%	Delay of more then two months	2%
7	Data centre technical &	99.50%	Leave without replacement and/or responsibility sharing	5%



	administrative manpower deployment & availability		- failure to fill position within 2 weeks of exit -	
8	Help Desk Operations	95.00%	Leave without replacement and/or responsibility sharing - failure to fill position within 2 weeks of exit	2%
9	FM Services	95.00%	Unable to close the call of the Department with in the stipulated time, liaison - with the Service providers of the Specific Item (Includes Servers, PC), - Printer, UPS, Scanner, EPABX, IP Telephone, Leased Lines, ISDN Etc)	2%
10	Security Administration (Perimeter, Firewall, IPS, Gateway Antivirus etc.)	100%	All the security equipments and systems should be monitored for uptime - with out intrusion, with out hacking and spoofing etc	5-10%
11	Antivirus (for Servers and Desktops)	100%	Virus infection to servers, desktops and causes functional and performance of services	5%
12	UPS	100%	Non availability of un-interrupted power to server and data centre - Backup of the battery bank non adherence to standards	5%
13	Generator	100%	Non availability Generator Power, shortage of diesel, not holding the required stock of fuel etc.	5%



14	Access Control System	99.00%	Non functioning of Access Control, non availability of MIS and periodic reports	2%
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1. **Network availability:** - Network availability is defined as total time in a quarter (in minutes) less total down time (in minutes) in the quarter including planned downtime. The network is considered available when all the services mentioned in the requirement section in full capacity are available. Bandwidth downtime will not be considered as part of network downtime. Bidder will take at least 15 days prior approval from the state for the network maintenance i.e. planned downtime. The Operator's request for payment shall be made at the end of each quarter by invoices along with the following supporting documents:

- Performance statistics
- Log of network parameters along with Service Down time calculation and Uptime percentage.
- Any other document necessary in support of the service performance acceptable to BSEDC.

The Third Party Agency shall verify all the supporting documents as prescribed and acceptable to BSEDC. On receipt of such invoice after verification by the Third Party Agency and after deducting Income Tax, other taxes and any Penalties, BSEDC shall pay the amount within a period of 15 days. The Bidder shall furnish all tax payment receipts to BSEDC.

2. Penalties for delay in implementation

If the Bidder 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 the final bid amount for the 3 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 5% of the arithmetic sum of 3 years the final bid amount. If the delay continues beyond 18 weeks, BSEDC may terminate the Agreement.



3. Operational Penalties

In the event the bidder is unable to meet any one of the SLA parameters defined in this RFP for 10% or more of the operational parameters during two quarters in a year or five quarters during the 3 years of the contract, BSEDC reserves the right to terminate the contract.

4. Penalties for misuse

In case of misuse of bandwidth/ Internet at the instance of Bidder, the penalty imposed on the Bidder, without prejudice to BSEDC other remedies under the Agreement shall be 200% of the final bid amount under the Agreement. If the misuse continues for two quarters, BSEDC may terminate the Agreement.

5. Payment Terms

No payment shall accrue until after the performance guarantee bond has been furnished. The selected Bidder engaged shall be responsible to design, develop, establish, implement, maintain and operate the facilities, for a term of 3 years. During this period of 3 years, the Bidder shall have full responsibility for the delivery of the services, including all operational, maintenance, and management activities, etc.

Part A: Data Center Commercial quote for Physical Infrastructure, Technology Infrastructure.

Sr. No	Particulars	Activity	Amt in Rs.
1	Data Center	Design, Development, deployment, installation and commissioning of physical infrastructure site of Data Center	
2	Data Center	Delivery, installation and commissioning of technology infrastructure hardware and system software etc.,	
		Total Amount	



Amount in Words _____

Part B: Data Center Commercial quote for Managed Services.

Sr. No	Particulars	Amt per Quarter in Rs.	Amt in Rs. For 3 years
1	Managed Services		
		Total Amount	

Amount in Words _____

Part C: Technology Facility Management Services at Department Level

Sr. No	Particulars	Amt per Quarter in Rs.	Amt in Rs. For 3 years
1	Facility Management Services		
		Total Amount	

Amount in Words _____

Part D: Total Commercial Quote

Sr. No	Particulars	Amt in Rs.
1	Data Center (Part A)	
2	Managed Services (Part B)	
3	Facility Management Services (Part C)	
	Grand Total	

Terms of Payment:

- 10% of Part D bid amount as Performance Bank Guarantee should be discharged by the bidder at the time of signing contract.
- 60% of Part A (1+2) bid amount will be paid to the bidder after the commissioning of the facilities. (“**Commissioning**” means physical and



- technology infrastructure both to be commissioned and systems should be ready for production environment).
3. 20% of Part A (1+2) bid amount will be paid to the bidder after running the systems successful for 3 months from the date of commissioning.
 4. 20% of Part A (1+2) bid amount will be paid to the bidder after running the systems successful for 6 months from the date of commissioning.
 5. Quarterly payment of Part B and Part C of the bid amount will be paid to the bidder in arrears after adjusting the SLA parameters.
 6. The amounts indicated should be final after all taxes, cess, levy, duties, insurance till the time of commissioning, transport, cartage, installation, and commissioning.
 7. Conditional bids will be not accepted and will be summarily rejected.

5.10. Representations and warranties

Representations and Warranties by the Bidder

- a. 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 the Agreement and carry out the terms, conditions and provisions hereof;
- b. It has in full force and effect all requisite clearances, approvals and permits necessary to enter into the Agreement and perform its obligations hereof;
- c. It will have the legally valid and enforceable title to all Equipment as may be necessary for proper functioning and it will be free from all encumbrances, liens, charges, any security interest and adverse claims of any description;
- d. The Agreement and the transactions and obligations hereof do not contravene its constitutional documents or any law, regulation or government directive and will not contravene any provisions of, or constitute a default under, any other Agreement or instrument to which it is a party or by which it or its property may be bound or any of its obligations or 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;
- e. There is no pending or threatened actions, suits or proceedings affecting the Bidder or its affiliates or any of their respective assets before a court, governmental agency, commission or arbitrator or administrative tribunal which affects the Bidder's ability to perform its obligations under the



- Agreement; and neither Bidder nor any of its affiliates have immunity from the jurisdiction of a court or from legal process (whether through service of notice, attachment prior to judgment, attachment in aid of execution or otherwise);
- f. The Bidder confirms that all representations and warranties of the Bidder set forth in the Agreement are true, complete and correct in all respects;
 - g. No information given by the Bidder in relation to the Agreement, project documents or any document comprising security contains any material misstatement of fact or omits to state as fact which would be materially adverse to the enforcement of the rights and remedies of BSEDC or which would be necessary to make any statement, representation or warranty contained herein or therein true and correct;
 - h. All equipment including material to be installed by the Bidder in the DC shall be new and the product should not be de-supported or declared end of life within next 3 years. A certificate to that effect should be furnished from OEM. All equipment shall conform to the codes, standards and regulations applicable to networking facilities and benefit from the usual manufacturer's guarantees.
 - i. The bidder has to give warranties for the products / hardware / system software / networking equipment for the period of contract i.e., 3 years for the date of commissioning of the project.

5.11. Representations and Warranties by BSEDC

- a) It has full legal right; power and authority to execute the DC project and to enter into and perform its obligations under the Agreement and there are no proceedings pending.
- b) The Agreement has been duly authorized, executed and delivered by BSEDC and constitutes valid, legal and binding obligation of BSEDC.
- c) The execution and delivery of the Agreement with the Bidder 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 or its administration.



The Parties agree that these representations and warranties are taken to be made on each Day during the term of the Agreement.

5.12. Maintenance of Equipment

The selected vendor shall ensure that services are of a professionally qualified person is available for providing comprehensive on-site maintenance and administration (on 24x7 basis at DC and NOC) of hardware and system software.

Comprehensive Maintenance and Administration of the DC shall include, among other things, day to day administration and maintenance of the system as per the policy, regular log monitoring, reconfiguring of hardware / system software, etc. when required. In case of DC failure, the vendor shall ensure that the DC is made operational to the full satisfaction of BELTRON / BSEDC within the MTTR (Mean Time To Repair) committed by the bidder.

In the event of DC break down or failures at any stage, protection available, which would include the following, shall be specified.

- Diagnostics for identification of hardware failures
- Recovery/restart DC

The selected Vendor shall ensure the SLA's on 24X7X365 basis (shutting down of equipment at BELTRON's discretion and Planned outage will not be considered for calculation of uptime).

The list of critical spares, the vendor proposes to stock at the sites should be furnished separately along with the technical bid. The scope of the contract will include at least one scheduled servicing (Preventive Maintenance) at quarterly intervals and any number of breakdown calls. The comprehensive maintenance would be inclusive of all spares need to be replaced and excluding consumables.

5.13. Termination for Default

The BSEDC may, without prejudice, to any other remedy for breach of contract, by written notice of default sent to the bidder, terminate the contract in whole or in part if:



- The bidder fails to deliver any or all of the obligations within the time period(s) specified in the contract, of any extension thereof granted by the BSEDC.
- The bidder fails to perform any other obligation(s) under the contract.

5.14. Bankruptcy and Insolvency:

Bihar Government can terminate the contract if the bidder becomes bankrupt and/or losses the desired state of insolvency with a notice of 15 days. Bihar Government, in such cases of termination, will not be responsible for any loss or financial damage to the service provider resulted due to the termination. The Government will also, in such cases have the right to recover any pending dues by invoking the performance bank guarantee or any such instrument available with the Government.



Section VI

SCOPE OF WORK



Detailed Scope of Work

6.1. BRAIN Data Center Scope of Work

The Scope of Work envisages following physical infrastructure is required for setting up Data Center.

- Data Center Room – Server Farm Area.
- Data Center Room – Storage Area (SAN).
- Database Administrators, System Administrators and Application Server Administrators Area
- Data Center Operators Area / Network Operational Control Room.
- Backup & Media Storage Area.
- UPS & Power Backup Equipment Storage Area
- Setting up a Local Area Network at all VAT offices .

Note:

1. **The specifications and Bill of Materials are only indicative, the bidder has to incorporate any other items needed for the working and smooth running of the entire solution. The bidder should provide all associate components and accessories for completion of work assigned. BSEDC will hold bidder responsible for complete work, if any material is essential it should be explicitly marked as not provided in the indicative BoM.**
2. **The Charges for Power, Diesel and Consumables will be borne by BSEDC. The bidders will be responsible for management & maintenance of services.**

6.2. Establishing of Data Center

The bidder will be given raw space of approximate 1000 Square Feet area in 2nd Floor of Technology Bhawan, Bailey Road, Patna for establishing Data Center. The bidder has to complete entire civil construction, interior, electrical, Air Conditioning, Fire control System, Access Control System, and other necessary things.

The bidder is advised to inspect the site and access the requirements needed for establishing Data Center.

Minimum Technical Specifications for the BRAIN Data Centre



Items	Description of Specifications / Services
Mandatory	The Data Centre must be in conformity with the stipulated requirements of the local and regulatory authorities. The site preparation should follow the current norms prevalent in the industry. All equipment and material used should have relevant IS certification.
Physical Infrastructure:	
Room	The Room should be coated with epoxy or equivalent paints after the walls are treated properly. It needs to be totally dust free by sealing all windows and related orifice by proper sealant. Adequate furniture is required for 10 to 12 people to seat and operate.
False Flooring	Elevated flooring is required with: a) Wooden frame and vinyl covering. b) Cementations for filtering strength. c) Fire proof stable construction. Maximum finished floor height of 400mm from the existing floor level is allowed. Should have adjustable pedestal assembly capable of taking 2268 kg axial load. The floor panels should be replaceable / interchangeable to facilitate easy laying of networking and power cables / lines.
False Ceiling / Partition	The room should have false ceiling with powder coated GI panels, lighting panels and factory made modular partitions.
Rack	The Racks will be provided with the Servers and Storage equipments.
Power Supply	An independent redundant earth pit is to be created as per relevant IS specification. The earth conductor from the earth pit to the Data Centre should be multistrand and insulated with overall copper cross section equivalent to minimum 16 SWG. AC Mains 440V 3 phase 4 wire through MCB/ELCB connectivity has to be drawn from the building's AC Mains supply to the Data Centre.



Cabling	Adequate capacity cabling and data & power outlets need to be provided to accommodate the equipments listed for the Data Centre. The source of the cabling would be from UPS output. Separate power cabling for air conditioners also to be provided. The connections are to be drawn from AC Mains from two different power zones.
Air Conditioning:	The air supply needs to be through the false flooring and the hot air outflow should be made through the false ceiling. The Data Centre must have redundant air conditioning systems to maintain required temperature for the equipments at all points of time even if the main system goes down for any reason whatsoever. Hence, Air Conditioning should be ensured to the extent of 99.9%.
Temperature & Humidity Control:	The Data Centre must adhere to precision controlled environment specifications. The temperature inside the data centre should be maintained at 18 degree centigrade (± 1 degree) and the humidity level should be controlled as per international benchmarks to safeguard the equipments from corrosion, etc.
Fire Management System :	The Data Centre should have adequate Fire Detection & Altering Mechanism which may include optical, thermal sensors.
Physical Access Security :	There should be smart card based access security system at the critical areas and at the main entrance of the data centre.

Designing and Conceptualization

The bidder has to engage qualified architect, civil engineer, electrical engineer, air conditioning engineer and other technical personnel for undertaking detailed requirement analysis. After the detailed requirement analysis is undertaken, drawings for each of the sections to be submitted for state approval. Once the approval is given for the plan drawings work can be initiated.

Features:



Centralized monitoring view of distributed equipment. Utilizing the SNMP and Web technologies built into each of the Open communication cards, the Software will centrally manage alarm notifications to provide an easy interface to access critical status information

- Automated Notification - of Alarm conditions from all monitored equipment.
- Trigger event actions - E-mail alerts or local notifications on Alarm receipt.
- Event History Log - To manage all alarms that are received by the software
- Web Integration & Centralized Management of all critical systems
- Graphic floor-plans - Allow for quick equipment location and hyper-links to equipment
- Write Scripts - execute a set of actions when alarms are received and a
- Completely different set of actions when alarms return to normal.

UPS for Data centre.- Specifications

ITEM NO.	DESCRIPTION	UNIT	QTY.
1	Supply, installation, testing and commissioning of True Online, Double conversion technology 50 KVA UPS (Input 3 phase, output 3 phase, 415 V) operating in load bus synchronization mode, harmonic filter & Battery Breaker		2
	<p>UPS Specifications:</p> <p>Input Parameters:</p> <ul style="list-style-type: none"> - IGBT –Based rectifier with DSP control - Permissible Input Frequency (40-72) - Permissible Input Voltage Range (304-477) - Input Power Factor (≥ 0.99) - Input THDi ($< 3\%$) - Vector control technology <p>Battery:</p> <ul style="list-style-type: none"> - VRLA/Wet /NiCd - Nominal Battery Bus (480) - DC Ripple Current ($< 5\%$) <p>Inverter Type:</p>		



	<ul style="list-style-type: none"> - IGBT –Based vector & Repetitive Control - Voltage Regulation (+/0.5%) - Frequency Regulation (+/0.5%) - Output THDv (1%) - Handling of High crest Factor Load (3:1) - Handling of leading PF load (up to 0.9) - LCD Display minimum 120mmx 90mm, capable of storing last 500 events, battery monitoring parameters with advance diagnostics and communication, LCD display should give information on bypass, UPS o/p, Local load information, parallel load information, battery status on LCD display. - Controller should be digital vector control with drift proof protection. 		
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Generator set for backup. - Specifications

ITEM NO.	DESCRIPTION	QTY
1	Supply, Installation, testing, Commissioning 75 KVA D.G Set providing AMF panel and Power Cabling,	1
	The job includes providing fuel Tank of Capacity 200 Ltrs Fuel piping, First fill of fuel Exhaust piping using residential type silencer, control cabling up to the AMF panel	
	The job also includes providing foundation, and Earthing.	

Racks - Specifications

Sr. No	Description	Qty.
A	PNR 42 – Server racks	
1	42U x 600 x 1000 Integrated Server rack frame.	4
	Physical Attributes	



	Height :42U	
	Rack Type :-Floor mount with caster wheels	
	Wire managers :- One vertical and two horizontal	
	Power distribution :- 12 sockets, 5/15 Amps with MCB	
	Front Door :- 84%Perforation (180 Degree opening Angle) in front with 3-point lock and swing handle.	
	Back Door – 84% Perforation back door with 180 Degree Opening Angle) in front with 3- point lock and swing handle.	
	Fan trays :-With 4 fans	
	Depth :-1000 mm	
	Width :- 600 mm	
	Metal :-Aluminium extruded profile	
	Aluminium Top & Bottom Frame with die cast Aluminium Corner Members.	

Air Curtains and Industrial Vacuum Cleaners

ISI standard Air curtain has to be provided at entry and exit points. Industrial vacuum cleaners of Wolf make or equivalent for general maintenance to be provided.

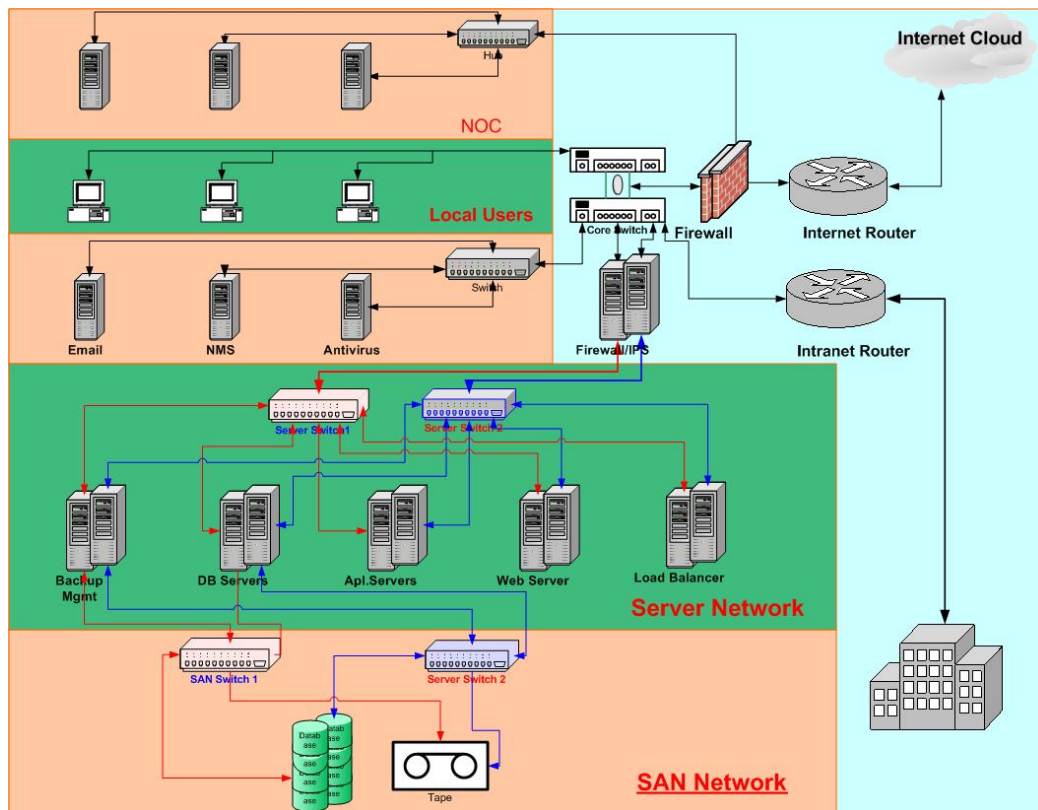


6.3. Technical requirements

The Data Centre would be hosted with Industry standard Architecture, Perimeter and Internal Security, Monitoring Tools and Storage. The following Schematic representation illustrates the overall view:

Note: The specifications and Bill of Materials are only indicative; the bidder has to incorporate any other items needed for the working and smooth running of the entire solution. The bidder should provide all associate components and accessories for completion of work assigned. BSEDC will hold bidder responsible for complete work, if any material is essential it should be explicitly marked as not provided in the indicative BoM.

Schematic View of Data Centre:



Web Servers

All the web servers of the Bihar State Government Departments will be provisioned for hosting in the DC Web Server Cluster. Vendor has to establish a



web server cluster, which would be scalable as demand arises. Any industry leading web servers can be used like Apache, IIS etc. with latest versions and patches. The counter is employed with configurable options like repeated hits, page hits and pages download.

Application Servers

The applications servers installed in the Data Center will cater to various departments of Bihar Government. These servers will be under high availability mode and can handle multiple applications on the same server cluster. The environment is created to deploy the applications easily, effectively and with short roll out period.

The system hardware should conform to the standards specified below. The applications will be developed based on open standard tools. The applications will be deployed on these systems. The vendor to ensure that the necessary tools and drivers are provided along with the systems for the smooth roll out of the applications developed. The vendor should have good exposure on the cluster management services of the application server proposed.

- a) Application server should support open Development Environment tools.
- b) Application server should be able to connect to legacy systems.
- c) Remote administration capability to configure & maintain servers and server clusters in multiple installations. Over the Internet administration should be possible.
- d) Application Server should provide clustering, fail-over & load balancing functionality to ensure high availability of the system. This feature can be part of the application server or additional tools to provide the necessary solution as required. This is to ensure that all the applications developed using standard tools are deployed easily and not to put efforts towards load balancing and high availability while development.
- e) The application server should support open API for integrating with central authorization and authentication servers/services.



- f) The applications under this environment should be able to connect to back end databases. The system to ensure the data integrity in single and cluster mode.
- g) Multiple applications should be deployable on the application server under clustered, high available mode. While rolling out new applications the services to the users already using should not be disturbed.

Database Servers

- a) Platform
 - Microsoft Platform
 - Unix
 - Data should be transportable across platforms. (Business data should be portable from one platform to the other).
 - Platform independent data migration tools.
- b) Scalability
 - Should support high volume OLTP systems (Live sites as reference)
 - Should support massive data warehouse needs. (Live sites as reference)
 - Support massive Internet application systems
 - Cluster file system
 - Native code compilation
- c) Performance
 - Tuneable as per requirement. Configurable database. (OLTP/Data warehouse)
 - Advanced clustering mechanism for maximizing performance
 - Data Caching options
 - Options to improve data proximity online
- d) Developers
 - Should provide rich set of interface for programmers
 - Native compiling of programmable units



e) High Availability and disaster recovery

- Online Backup and recovery mechanisms
- Asynchronous and synchronous DR setup mechanisms
- Online database reorganization
- Transaction level consistency
- Block level media recovery
- Point in time recovery
- Predictable fast start recovery
- Multiplexed log files
- Complete data guard protection
- Transparent application fail over
- Partitioning Mechanism
- Cluster enabled

f) Security

- Fine grained row level security
- Password management
- DBA auditing
- Proxy authentication
- Virtual Private databases
- Encryption
- Audit trail
- Immune to database Virus attacks e.g. Slammer Virus
- Row Level Security
- Virtual Private Database
- Data Encryption

g) Concurrency capabilities

- Multi version read consistency
- No read locks
- No Dirty reads
- Non escalating row level locking
- Readers don't block writers
- Writers don't block readers



- No deadlocks under load
- Parallel Executions

h) Indexing

- B-Tree index
- Index organized Tables
- Bitmap Indexes
- Bitmap join indexes
- Partitioning option

i) Data warehouse capabilities

- Materialized views
- Merge
- Multi table Insert
- Pipelined Table function

j) Database Administration Ease and Options

- Space Management
- Resource Management
- Memory Management
- Backup and recovery manageability
- Transaction management
- User Management
- Security Management
- Event and Alarms Management
- Performance Management
- Distributed database Management
- Clustered database Management

k) Support

- 7x24 support
- Abundance availability of technical resource in terms or manpower, online-documents



Email Server

Centralized mail services will be available for entire departments/offices. This will increase communications, collaboration and enhanced productivity for employee and offices of GoB, users within and outside of departments and citizens of the state, as they will be able to communicate/ share information with other Email users.

UTP & Fiber for Data and Voice Cabling Specifications

The following are the minimum required guideline specifications for UTP and Fiber Cabling.

- a) It shall be ensured that the cable is laid, tested and commissioned in accordance with drawing specifications and manufacturers instructions.
 - Cables should be laid by skilled and experienced workmen, using adequate equipment to minimize stretching of the cable.
 - All terminations should be carried out according to the manufacture's instructions and guidelines and standards of generic cabling systems. When terminating outlets care must be taken to avoid damaging the copper cores when stripping back outer sheathing.
 - Testing of each node should be done as per manufacturer standards.
 - The suitable number of Fiber LIU's and patch panels are to be provided on the networking rack so that all the sever development, QA & TR environment and production environment are connected to Data Center Switch.
 - Conduits, junction boxes, draw boxes, outlet boxes and covers to boxes for RJ45 should be provided along with Patch cords.

- b) UTP Cable Specifications
 - Category 6 (-XL-7) UTP, 4 Pair (High Performance) cables shall extend between the station location and it's associated TR and consist of 4 pair, 24 gauge UTP, and shall terminate on 8 pin modular jacks provided at each outlet. Cable jacket shall comply with Article 800 NEC for use as a plenum or non-plenum cable. The 4 pair L'TP cable shall be UL® and c (UL®) Listed Type CMP (plenum) or CM (non-plenum).
 - The high performance Category 6 UTP cable shall be of the traditional round design with Molar separator tape between pairs 2/3 and 1/4. The cable shall support Voice, Analogue Base band Video/Audio, Fax, Modem, Switched-56,



T-1, ISDN, RS-232, RS422, RS-4S5, 10BASE - T Ethernet, Token Ring, 100Mbps TP-PMD, 100BASE-T Ethernet, 155 Mbps ATM, AES/EBU Digital Audio 2 70 Mbps Digital Video, 622 Mbps 64-CAP ATM and emerging high-bandwidth applications, including 1 Gbps Ethernet, gigabit ATM, as well as all 77 channels (550 Mhz) of analogue broadband video.

- All Category 6 high performance cables shall meet or exceed the following:

Mutual Capacitance	:	47.5nF/m
Characteristic Impudence	:	100 Ohms (+/- 3%)
DC Resistance	:	9.83 Ohms/100m
Attenuation	:	< 33db at 250 Mhz
Return Loss	:	<17 db at 250 Mhz

Fibre Cable Specifications:

Single mode / Multi mode .85/1.31/1.55 nm Fibre as required can be used

Security System

Security Audit

The state shall get the security audited by third party expert periodically (Once in six months) to ensure and guarantee security of the Data centre. The audit shall bring out any security lapses in the system and establish that the system is working as desired by the State Government.

Data Centre Certification

Data Center would be certified with the standards of IS 17799, by an external agency after its commencement with full operations are within 6-12 months after its inception.

Data Centre Protection

The date centre shall have the required protection and safeguard mechanism for physical security, network security and facility infrastructure requirements including protection against fire, natural calamity and man made risks.



Security Implementation

- Ensure compliance with Security Policies, Procedures and Standards in order to safeguard the hardware and software assets with security Coverage.
- Provide management services in order to track legitimize the hardware and software assets of the BRAIN DC with security coverage.
- Log all the incidents and report.
- Follow up routine security incidents viz.
 - ◇ Verify with users when repeating invalid login happens, if the invalid login is suspicious of hacking; escalate to technical staff with relevant log information for checking.
 - ◇ Identify certain pattern in the consolidated log and take action to alert technical specialist.
 - ◇ Follow technical staff instructions to further narrowing down the potential threats through the log.

Data Centre Monitoring

DC vendor would utilize the Enterprise Management Solution of BSWAN project and inform the no. of servers to be monitored by the BSWAN EMS. A console would be provided to the Server / System Administrator to monitor the servers placed in the DC. However to monitor the applications and network of a specific department, that will be the responsibility of the user department/Application Vendor.

DC vendor would use technologies to harvest such logs and to consolidate and analyze logs generated by such an infrastructure.

Server Monitoring

- Bihar Government has initiated a separate proposal for implement of SWAN throughout the state through another RFP where, Enterprise Management System is provisioned. All the features to monitor the Data Center are part of the EMS of BSWAN; DC vendor would inform the no. of servers to be monitored and get the service configured for the monitoring.



- DC vendor would need to implement management solutions to proactively manage the servers, which would alert the administrator as, and when each service of the data centre reaches the defined threshold before the failure occurs on the servers or devices to ensure increased uptime of the data centre.
- Define policies for periodic monitoring of activity on the firewall and IPS server to check for malicious activity.
- Define policies for performing periodic health check on the all the servers with the data centre.
- Data Centre would deploy solutions to perform automatic patch management to reduce the manual intervention for ensuring the OS and other System software's are current, which reduces the impact of vulnerabilities.
- The overall responsibility of ensuring the DC performance rests with the DC operator and the following are critical areas in performance management, which shall be monitored by the DC operator on a constant basis.

➤ CPU utilization

CPU is used by both the control plane and data plane on any network device. In capacity and performance management, DC operator must ensure that the device and network have sufficient CPU capacity to function at all times. DC operator shall configure the NMS to monitor the CPU utilization of the critical network devices implemented in POP's. In case the average CPU utilization is above 80 % on a continuous basis, DC operator shall perform the diagnostic review of the device and provide recommendations on addressing the issue. DC operator shall own the overall responsibility of the performance and shall accordingly escalate any performance related issues to the state government.

➤ Memory and buffers

Memory is another resource that has data plane and control plane requirements. When devices run out of memory, operations on the device can fail. In case the average memory utilization is above 70 % on a continuous basis, DC operator shall perform the diagnostic review of the device and provide recommendations on addressing the



issue. DC operator shall own the overall responsibility of the performance and shall accordingly escalate any performance related issues to the state government.

LCD Panels for Monitoring of events

All the monitoring consoles be configured in the Network Operating Centre (NOC) where all the activities of the Server room and Network operations.

End-to-end service availability of the DC and its independent monitoring is the prime requirement to have a reliable, seamless, smooth delivery of the services to the citizens and other G2G and G2B applications meeting the objectives of this core e-governance infrastructure. It is therefore necessary for the appropriate security level agreements (SLAs) be worked out between the states and the implementing agency and that an independent agency would be appointed to monitoring the performance with reference to the SLA and related aspects.

- ❑ Data Centre to deploy help desk solution to track and manage the calls logged and resolved.
- ❑ Data Centre to implement the anti-virus solutions to automatically update to latest anti-virus signature files.
- ❑ Data Centre to perform periodic audits on the DC using a third party consulting of the following.
 - Security policies define and it's implementation.
 - Reviewing of the activates performed management team
 - Reviewing the access control to the data centre.
 - Reviewing the health check results and the action taken.
 - Reviewing on the uptime of the service to determine the conformance to the SLA's of the DC.
- ❑ Other important activities that should be managed at the data centre.
 - Daily maintenance of system configuration.
 - Overall security of the network.
 - Day to day disk space management.
 - Tracking the server's performance and take the remedial and preventive in case of problems.



- Proper up keep of storage media and perform daily backups based on the backup policy.
- Monitor physical access to the data centre.

6.4. Data Backups and Retention

Data Backups

- Do server data backup as per the defined procedure at scheduled time with verification mode “**ON**”. The back up of operating system, application, system logs, database etc., shall be taken as requested by the user.
- Maintain Consistent set of Data Sets ONSITE and OFFSITE as per backup policy with proper identification for quick retrieval.
- Ensure that the backups are retained as per the policy / requirement by maintaining the backup media appropriately.
- Verify the integrity of the backup by restoring the data on the test setup periodically and taking confirmation from the user on integrity and correctness of the data restored.
- Mark the backed up media with a tag giving identification details like date of back up, server name, backup details like data base name, Operating System name, rev number, application name, location of storage Onsite or Offsite and retention period etc.
- Provide the media requirement projections to purchasing authorities, based upon the backup policy, retention period, number and types of media's required etc.
 - Daily Reports
 - Daily backup status and escalation of failed backups.
 - Monthly Reports
 - Backup status successful/Failure
 - Restoration test details
- Data Backup Policy
- Media Retention Policy
- Backup Schedule and procedures
- Server/disk recourses for restoration tests



Data retention period

The state would formulate an appropriate Data Retention policy and ensure that the data centre architecture supports the same. The Data Retention policy would be guided by the following factors.

- Data Classification and risk assessment of data.
- Data retention period
- Data Security aspects.
- Disposal of data once the retention period is over.

Local Area Network

Successful bidder will provide Local Area Network at all VAT offices across the state

6.5. Skilled Man Power for 24x7

The Data Centre would be manned manpower resource as indicated below, for overall management and operations of the Data Centre. Keeping in the view the criticality of the data centre operations, it would need to ensure that the essential requirements for such manpower are clearly defined and remain on a long-term basis.

Data Centre Manager - (Project Manager) - 1No

Responsible for overall management of the data centre, user SLA commitments, performance, availability, response time, problem resolution etc., the desired profile of the candidate should be minimum B.E (CSC/ECE/EEE)/MCA preferably MBA with 6-8 years experience. He/She should have exposure to BS15000 process / ITIL or ITIL certified and have a proven track record of managing operational IT support teams including establishment of RMC / Processes, technology and staffing. Required for one shift only

System Administrators – 1No.

Responsible for database configuration, scalability, performance, load balancing, OS administration/management, troubleshooting & Debugging and monitoring of servers.



The desired profile of the candidate should be minimum B.E (CSC/ECE/EEE)/MCA preferably MBA with 3-4 years experience in system administration of RDBM data (Oracle/ MSSQL). Sys admin, win2k, UNIX, Solaris, etc., server programmer of Java, C, C++, SQL, PLSQL, CORBA etc. Technical certification on the above is desired. Required for only one shift.

Network Administrators – 1 No.

Responsible for network uptime, security, performance, monitoring and other related services. Network monitoring and proactive network uptime maintenance is essential.

The candidate should be well versed with routing and switching devices and technology like AM, MPLS, wireless, broadband and protocol analysis tool. Must have beginner to intermediate skills in information security technologies like firewalls, 2&3 factor authentication, IPS content filtering, encryption, VPN thread management, antivirus and be familiar with security audit parameters. Required from 8.00 am to 8.00 pm on all days.

Database Administrators – 1 No.

Responsible for database administration, WEB administration, Application testing, web designing, staging and other related services including content creation and capacity building etc.,

The desired profile of the candidate should be minimum B.E(CSC/ECE/EEE)/MCA preferably MBA with 3-4 years experience in Administering production data bases and worked in Oracle9i, 10G, DB2 etc., knowledge in PLSQL programming with experience knowledge in stand by databases preferred. Must technical certification in database administration. Required between 8.00 am to 8.00 pm on all days.

Maintenance staff (Electrician, Cabling, House Keeping etc..) – As Required (A/R)

Responsible for electrical, civil, and house keeping of DC premises. Required for 2 shifts.

**Technical Support Services (System and Network Engineers) – A/R**

Responsible for L2 support, H/W & S/W support and would provide help to the data centre operations and management.

Core team in quick resolution of problems in the technical support team would work on shift basis and ensure uptime of services.

The desired profile of the candidate should be min diploma with 2-3 years exp in technical support services, operations, IT infrastructure managing and updating customer database with pleasing personality and good communication skills. Technical certification like CCNA etc. is preferred. Required for 3 shifts.

Administration/HR – 1 No.

The Person should be responsible for entire data centre administration, logistic support, procurement, stationary, administrative co-ordination etc.

The desired profile of the candidate should be graduate with PGD-HR , PM/IR with 2-3 years experience in administration recruitment logistic support of man power and worked wither with data centre operations or with IT/ITES with good communication and HR managing skills.

Help Desk / Customer Care – A/R

Responsible for call login, call management, call escalation etc., the requirement of man power for help desk services may increase as demand grows and more services are added to the Data centre. Required for 2 shifts.

6.6. Schedule of Supply:

Item No.	Name of Goods or Related Services	Description (See Detailed Specifications)	Unit of Measurement	Quantity
1	Server			
1.1	Web server Type-I		No.	2
1.2	Web server Type-II		No.	2
1.3	Development / Maintenance Server		No.	3
1.4	Windows Server		No.	2



1.5	Application Server Type-I		No.	6
1.6	Application Server Type-II		No.	2
1.7	Database Server Type-I		Cluster Pair	2
1.8	Database Server Type-II		Cluster Pair	1
1.9	Database Server Type-III		Cluster Pair	1
1.10	Email Server		No.	2
2	Storage			
2.1	SAN Storage		No.	1
2.2	SAN Switch		Pair	1
2.3	TAPE library		No.	1
3	Nodes & Accessories			
3.1	Desktop		No.	500
3.2	Laptop		No.	20
3.3	Scanners		No.	100
3.4	Dot Matrix Printers		No.	100
3.5	Line Printer (for Audit trial)		No.	1
3.6	Laser Printers		No.	3
3.7	LCD Monitors		No.	4
3.8	KVM Switches		No.	4
3.9	LCD Screens		No.	4
4	Networking Components			
4.1	Router Type-I		No.	105
4.2	Router Type-II		No.	2
4.3	Switch Type-I		No.	13
4.4	Switch Type-II		No.	100
4.5	Switch Type-III		No.	2
4.6	Switch Type-IV		No.	2
4.7	Wireless Access Point		No.	5
4.8	Firewall Type-I		No.	2
4.9	Firewall Type-II		No.	1
4.10	Load Balancer		Pair	1
4.11	NMS for Network Equipment Monitoring.		No.	1
4.12	Modems		Pair	150



	(Quantity varies depending on BSNL provision of MLLN Network) (if E1 interface is given at router level, in that case Modems are not required)			
4.14	LAN Passive Components 6U Rack with accessories 45 Nos. 12 Port Jack Panel – 45 Nos CAT6 UTP Patch Cord (3ft)- 500 No CAT6 UTP Patch Cord (7ft)- 500 No I/O Boxes (RJ45 Socket, Safe Plate, TR Box and Gang Box) – 500 CAT6 UTP Cable – 30 Boxes		Set	Set
5	Software & Licenses			
5.1	Oracle software for Unix based database server			Processor Based
5.2	Oracle software for Unix based Application server			Processor Based
5.3	Windows 2003 Advanced Server CAL English Licensed with SA Pack User CAL		Licence	5
5.4	Windows CAL License		License	1000
5.5	Oracle software for Unix based web server		License	Processor Based
5.6	Oracle software for Unix based Development Server		License	1
5.7	Exchange Server Enterprise English Lic. With SA pack OLP		License	2
5.8	Exchange Standard CAL English License with SA Pack OLP		License	1000
5.9	Antivirus with Spam protection software & License (Gateway & Desktop)		License	1000
5.10	Microsoft SQL Server Enterprise Edition x64 English Lic with SA Pack		License 2 Nos	Processor based



	OLP			
5.11	Microsoft Office 2007 Pro+. Lic with SA Pack OLP		License	500
5.12	Microsoft Visio Professional English License with SA Pack OLP		License	2
5.13	Crystal Reports Server based		License	5
5.14	Toad		License	10
5.15	Rational Robot User License		License	1
5.16	Rational Rose Enterprise User License		License	1
5.17	Office SharePoint Server English License with SA Pack OLP		License	2
5.18	Office SharePoint designer English License with SA Pack OLP		License	5
5.19	Office SharePoint CAL 2007 English OLP User CAL		License	500
5.20	Biz Talk Server Enterprise English License with SA Pack		4 Nos.	Processor based
5.21	Biz Talk Server Developer English License with SA Pack		License	5

Notes

Successful bidder will provide Local Area Network at all VAT offices mentioned in Table 4



6.7. Detailed Specifications of Requirement:

Item No.	Area	Technical Description, Specifications and Standards	Statement of Compliance
1	Server		
1.1	Web server Type-I	<p>Type of Processor:- Total 2 Processor cores. (i.e. 1 no of dual core or equivalent)</p> <p>Dual Core Intel Xeon 5160 with 1333 MHz FSB and 2 x 2 MB L2 cache Chipset:- Intel 5000</p> <p>Memory:- 8GB, RAM Type:- PC2-5300 Fully buffered DIMM scalable upto 32 GB or higher</p> <p>Hard Disk:- 2x146GB 10k HotPlug Ultra320 SAS drive or higher</p> <p>Networking:- Embedded Dual Multifunction Gigabit Network Adapters with TCP/IP Offload Engine</p> <p>CD/DVD:- DVD ROM</p> <p>Power Supply:- Redundant Power supply and redundant cooling fans</p> <p>OS:- Windows 2003 Advanced Server</p> <p>Housing:- Rack Mounted System with all rack accessories to be supplied I/O Slots:- 2 PCI-Express expansion slots (x8): (1) full-length, full-height slot; (1) low-profile slot; 1 option PCI-X (64-bit/133MHz) or higher</p> <p>Internal HDD Bays:- Minimum 6 hot plug HDD bays or higher Mandatory</p> <p>Height:- Rack-optimized with 2U height;</p> <p>Remote Management:- Standard Remote management</p> <p>Diagnostics:- Displays specific failed component, not independently powered.</p>	



<p>1.2</p>	<p>Web server Type-II</p>	<p>Type of Processor:- Total 2 Processor cores. (i.e. 1 no of dual core or equivalent) Dual Core Itanium 2 1.6Ghz with 18MB L3 cache OR 64 bit 1.9GHz Power 5 with 36 MB L3 cache OR 1.8GHz Ultra Sparc IV+ with 32 MB L3 cache Memory:- 8GB, RAM Type:- PC2-4300 ECC chip spare DDR2 or higher Hard Disk:- 2x146GB or 4 * 73 GB 10k HotPlug Ultra320 SCSI / SAS drive or higher Networking:- 2 no 10/100/1000 Base Tx Ethernet Adapters CD/DVD:- DVD ROM Power Supply:- Redundant Power supply and redundant cooling fans OS:- Unix Housing:- Rack Mounted System with all rack accessories to be supplied I/O Slots:- Minimum 8 PCI-X Slots or higher Internal HDD Bays:- Minimum 8 hot plug HDD bays or higher Interfaces:- Minimum 1 dedicated port for server management Preferable Height:- Rack-optimized 4U height.</p>	
<p>1.3</p>	<p>Development / Test / Maintenance Server</p>	<p>Type of Processor:- Total 2 Processor cores. (i.e. 1 no of dual core or equivalent) Dual Core Itanium 2 1.6Ghz with 18MB L3 cache OR 64 bit 1.9GHz Power 5 with 36 MB L3 cache OR 1.8GHz Ultra Sparc IV+ with 32 MB L3 cache Memory:- 8GB, RAM Type:- PC2100 ECC or higher Hard Disk:- 2x146GB 10k HotPlug Ultra320 SCSI</p>	



		<p>/ SAS drive or higher</p> <p>Networking:- 2 no 10/100/1000 Base Tx Ethernet Adapters</p> <p>CD/DVD:- DVD ROM</p> <p>Power Supply:- Redundant Power supply and redundant cooling fans</p> <p>OS:- Unix</p> <p>Housing:- Rack Mounted System with all rack accessories to be supplied</p> <p>I/O Slots:- Minimum 4 PCI-X Slots or higher</p> <p>Interfaces:- Minimum 1 dedicated port for server management</p> <p>Preferable Height:- Rack-optimized 2U height;</p>	
<p>1.4</p>	<p>Windows Server</p>	<p>Type of Processor:- Dual Core Intel Xeon 5160 with 1333 MHz FSB and 2 x 2 MB L2 cache</p> <p>Chipset:- Intel 5000</p> <p>Memory:- 8GB, RAM Type:- PC2-5300 Fully buffered DIMM scalable upto 32 GB or higher</p> <p>Hard Disk:- 2x146GB 10k HotPlug Ultra320 SAS drive or higher</p> <p>Networking:- Embedded Dual Multifunction Gigabit Network Adapters with TCP/IP Offload Engine</p> <p>CD/DVD:- DVD ROM</p> <p>Power Supply:- Redundant Power supply and redundant cooling fans</p> <p>OS:- Windows 2003 Advanced Server English OLP</p> <p>Housing:- Rack Mounted System with all rack accessories to be supplied</p> <p>I/O Slots:- 2 PCI-Express expansion slots (x8): (1) full-length, full-height slot; (1) low-profile slot; 1 option PCI-X (64-bit/133MHz) or higher</p> <p>Internal HDD Bays:- Minimum 6 hot plug HDD bays or higher</p> <p>Mandatory</p>	



		<p>Height:- Rack-optimized with 2U height; Remote Management:- Standard Remote management</p> <p>Diagnostics: - Displays specific failed component, not independently powered</p>	
1.5	Application Server Type-I	<p>Type of Processor:- Total 2 Processor cores. (i.e. 1 no of dual core or equivalent)</p> <p>Dual Core Itanium 2 1.6Ghz with 18MB L3 cache</p> <p>OR</p> <p>64 bit 1.9GHz Power 5 with 36 MB L3 cache</p> <p>OR</p> <p>1.8GHz Ultra Sparc IV+ with 32 MB L3 cache</p> <p>Memory:- 8GB, RAM Type:- PC2-4300 ECC chip spare DDR2 or higher</p> <p>Hard Disk:- 2x146GB or 4 * 73 GB 10k Hot Plug Ultra320 SCSI / SAS drive or higher</p> <p>Networking:- 2 no 10/100/1000 Base Tx Ethernet Adapters</p> <p>CD/DVD:- DVD ROM</p> <p>Power Supply:- Redundant Power supply and redundant cooling fans</p> <p>OS:- Unix</p> <p>Housing:- Rack Mounted System with all rack accessories to be supplied</p> <p>I/O Slots:- Minimum 8 PCI-X Slots or higher</p> <p>Internal HDD Bays:- Minimum 8 hot plug HDD bays or higher</p> <p>Interfaces:- Minimum 1 dedicated port for server management</p> <p>Preferable Height:- Rack-optimized 4U height;</p>	
1.6	Application Server Type-II	<p>Type of Processor:- Dual Core Intel Xeon 5160 with 1333 MHz FSB and 2 x 2 MB L2 cache</p> <p>Chipset:- Intel 5000</p> <p>Memory:- 8GB, RAM Type:- PC2-5300 Fully buffered DIMM scalable up to 32 GB or higher</p> <p>Hard Disk:- 2x146GB 10k Hot Plug Ultra320 SAS</p>	



		<p>drive or higher</p> <p>Networking:- Embedded Dual Multifunction Gigabit Network Adapters with TCP/IP Offload Engine</p> <p>CD/DVD:- DVD ROM</p> <p>Power Supply:- Redundant Power supply and redundant cooling fans</p> <p>OS:- Windows</p> <p>Housing:- Rack Mounted System with all rack accessories to be supplied</p> <p>I/O Slots:- 2 PCI-Express expansion slots (x8): (1) full-length, full-height slot; (1) low-profile slot; 1 option PCI-X (64-bit/133MHz) or higher</p> <p>Internal HDD Bays:- Minimum 6 hot plug HDD bays or higher Mandatory</p> <p>Height:- Rack-optimized with 2U height;</p> <p>Diagnostics:- Displays specific failed component, not independently powered</p>	
<p>1.7</p>	<p>Database Server (Cluster) Type-I</p>	<p>Type of Processor:- Total 4 Processor cores. (i.e. 2 nos of dual core processors or equivalent)</p> <p>Dual Core Itanium 2 1.6Ghz with 18MB L3 cache</p> <p>OR</p> <p>64 bit 1.9GHz Power 5 with 36 MB L3 cache</p> <p>OR</p> <p>1.8GHz Ultra Sparc IV+ with 32 MB L3 cache</p> <p>Memory:- 16GB, RAM Type:- PC2100 ECC Registered or higher</p> <p>Hard Disk:- 2x146GB 10k Hot Plug Ultra320 SCSI / SAS drive or higher</p> <p>External Storage:- 2 no 2GB Fibre Channel HBA to connect to SAN Switches</p> <p>Networking:- 4 no 10/100/1000 Base Tx Ethernet Adapters</p> <p>CD/DVD:- DVD ROM</p> <p>Power Supply:- Redundant Power supply and</p>	



		<p>redundant cooling fans</p> <p>OS:- Unix</p> <p>Housing:- Rack Mounted System with all rack accessories to be supplied</p> <p>I/O Slots:- Minimum 6 PCI-X Slots or higher</p> <p>Interfaces:- Minimum 1 dedicated port for server management</p> <p>Preferable Height:- Rack-optimized 4U height;</p>	
1.8	Database Server (Cluster) Type-II	<p>Type of Processor:- Total 2 Processor cores. (i.e. 1 no of dual core or equivalent) Dual Core Itanium 2 1.6Ghz with 18MB L3 cache</p> <p>OR</p> <p>64 bit 1.9GHz Power 5 with 36 MB L3 cache</p> <p>OR</p> <p>1.8GHz Ultra Sparc IV+ with 32 MB L3 cache</p> <p>Memory:- 16GB, RAM Type:- PC2-4300 ECC chip spare DDR2 or higher</p> <p>Hard Disk:- 2x146GB or 4 * 73 GB 10k Hot Plug Ultra320 SCSI / SAS drive or higher</p> <p>External Storage:- 2 no PCI-X Single channel 4GB Fibre Channel HBA to connect to SAN Switches</p> <p>Networking:- 4 no 10/100/1000 Base Tx Ethernet Adapters with minimum 2 onboard</p> <p>CD/DVD:- DVD ROM</p> <p>Power Supply:- Redundant Power supply and redundant cooling fans</p> <p>OS:- Unix</p> <p>Housing:- Rack Mounted System with all rack accessories to be supplied</p> <p>I/O Slots:- Minimum 8 PCI-X Slots or higher</p> <p>Internal HDD Bays:- Minimum 8 hot plug HDD bays or higher</p> <p>Interfaces:- Minimum 1 dedicated port for server management</p> <p>Preferable Height:- Rack-optimized 4U height</p>	
1.9	Database	Type of Processor:- Total 2 Processor cores. (1	



	<p>Server (Cluster) Type-III</p>	<p>no of dual core or equivalent) Dual Core Intel Xeon 5160 with 1333 MHz FSB and 2 x 2 MB L2 cache Chipset:- Intel 5000 Memory:- 8GB, RAM Type:- PC2-5300 Fully buffered DIMM scalable up to 32 GB or higher Hard Disk:- 2x146GB 10k Hot Plug Ultra320 SAS drive or higher. External Storage:- 2 nos. of 4GB Fibre Channel HBA to connect to SAN Switches Networking:- Embedded Dual Multifunction Gigabit Network Adapters with TCP/IP Offload Engine CD/DVD:- DVD ROM Power Supply:- Redundant Power supply and redundant cooling fans OS:- Windows 2003 Advanced Server Housing:- Rack Mounted System with all rack accessories to be supplied I/O Slots:- 2 PCI-Express expansion slots (x8): (1) full-length, full-height slot; (1) low-profile slot; 1 option PCI-X (64-bit/133MHz) or higher Internal HDD Bays:- Minimum 6 hot plug HDD bays or higher Mandatory Height:- Rack-optimized with 2U height; Remote Management:- Standard Remote management Diagnostics:- Displays specific failed component, not independently powered</p>	
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1.10	Email Server	<p>Type of Processor:- Dual Core Intel Xeon 5160 with 1333 MHz FSB and 2 x 2 MB L2 cache</p> <p>Chipset:- Intel 5000</p> <p>Memory:- 8GB, RAM Type:- PC2-5300 Fully buffered DIMM scalable up to 32 GB or higher</p> <p>Hard Disk:- 2x146GB 10k Hot Plug Ultra320 SAS drive or higher</p> <p>Networking:- Embedded Dual Multifunction Gigabit Network Adapters with TCP/IP Offload Engine</p> <p>CD/DVD:- DVD ROM</p> <p>Power Supply:- Redundant Power supply and redundant cooling fans</p> <p>Housing:- Rack Mounted System with all rack accessories to be supplied I/O Slots:- 2 PCI-Express expansion slots (x8): (1) full-length, full-height slot; (1) low-profile slot; 1 option PCI-X (64-bit/133MHz) or higher Internal HDD Bays:- Minimum 6 hot plug HDD bays or higher Mandatory</p> <p>Height:- Rack-optimized with 2U height; Remote Management:- Standard Remote management</p> <p>Diagnostics: - Displays specific failed component, not independently powered</p> <p>Server platform: Windows</p>	
2	Storage		
2.1	SAN Storage	<p>The storage array should support industry-leading Operating System platforms & clustering including: Windows, OpenVMS, Sun Solaris, HP-UX, IBM-AIX, Linux.</p> <p>Offered Array shall be scalable to at-least minimum of 112 numbers of Drives or 30TB.</p> <p>The storage array should support only Real time /</p>	



		<p>UNIX based operating system, dual, redundant, hot pluggable; active-active array controllers with high performance RISC based CPUs. Offered Storage Array shall be configurable in a No Single Point of failure including Array Controller card, Backplane, Cache memory, FAN, Power supply etc</p> <p>The storage array should have a minimum of 4GB cache.</p> <p>Offered Storage shall have minimum of 4 host ports running at 4Gbps speed for connectivity to servers.</p> <p>Offered Storage shall have minimum of 4 device ports for disk connectivity.</p> <p>The storage array should support hardware based RAID 0, 0+1, 1, 5 levels. 10.</p> <p>The Storage Array to be configured with 70 nos. of 300 GB 10K 2 GBPS Hard Drives.</p> <p>The storage array should support at-least 2 Gbps dual-ported 72 / 146/ 300GB / 400GB / 500GB hot-pluggable Enterprise FC and S-ATA / F-ATA drives in the disk shelf's.</p> <p>Storage Array shall support minimum 1024 Logical Units.</p> <p>The storage array should support virtualization at the storage controller level.</p> <p>Storage shall be offered with performance management software.</p> <p>For optimal performance, shall be able to stripe the data on more than 30 disks in a single virtualization disk group.</p> <p>The storage array should have support controller-based functionality for pointer-based snapshots, Capacity free snapshots without locking the required disk space and Full physical copies.</p>	
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		<p>The Storage Array should support incremental resynchronization between Primary and Snapshot / clone volume. For optimal space optimization, storage array shall support Business copy (Snapshot / Clone) on different raid sets than Primary volume.</p> <p>Storage Array shall support more than 12 business copies for every production volume. The storage array should support hardware based data replication at the array controller level across all models of the offered family.</p>	
2.2	SAN Switch	Port: Min 24 Port Management. At least one 10/100 Ethernet Management Port.	
2.3	TAPE library	<p>The Tape Library shall come along with Dual Ultrium 3 Drives. Minimum 46 Cartridge slots 80MBPS Native through put. Minimum 18.4 TB of Native Data Capacity and 36.8 TB of Compressed Capacity. Interface: 4Gb Fibre Channel Interface The Above Tape Library should come along with Necessary Back Up Software to take Online back up from All Unix Servers and Windows servers.</p>	
3	Nodes & Accessories		
3.1	Desktop	<p>Processor: Intel Core 2 Duo Processor,E6300 – 1.86GHz, 2-MB L2 cache, 1066-MHZ FSB, VT/EM64T/XD/EISFF, Intel 963 Series Chipset, OEM mother board</p> <p>Memory: 512 MB DDR2 SDRAM @ 533 MHz Expandable to 4 GB</p> <p>Hard Disk: 80 GB SATA-II SMART III 7200 rpm with pre failure Alert</p> <p>Display: 15" Colour Monitor</p> <p>Network: Integrated 10/100 Mbps Ethernet Adapter (RJ-45), PXE support.</p>	



		OS: Pre installed Microsoft Windows XP Pro SP2 with Restore / Recovery s/w, OS CD and documentation CD with each PC (in absence of OS CD, OEM pack of OS to be supplied), Integrated (on board) High Definition Audio controller with internal speaker Others: Min 52x SATA CD ROM (OEM make)	
3.2	Laptop	Processor: Intel Centrino Pentium-M 730 (1.6GHz-2MB cache) Chipset: Intel 910GM Chipset @ 533 MHz FSB, Memory: 512 MB upgradeable to 2GB, Hard Disk: 40GB HDD (5400), Others: DVD-CDRW Combo Drive, Integrated 10/100 LAN, 56K internal modem, Graphics: Integrated (on board) Intel integrated GMA 3000, Windows XP Professional.	
3.3	Scanners	2400 DPI; 24 Bit	
3.4	Dot Matrix Printers	Minimum 15 CPI, 132 Column 24 Pin 300 CPS	
3.5	Line Printers	Standard Pedestal Model 600 Lines per minute (Draft in Uppercase) 136 column print width Able to print DEVNAGARI Cartridge type ribbon: (Easy to refill, Handle & Economic) External Print Server for Network Interface.	
3.6	Laser Printers	1) Monochrome Laser Plain paper, Up to 18 ppm Up to 1200 x 1200 dpi Envelopes, transparencies, cardstock, postcards, labels printing support A4, A5, Letter, Legal, Executive, B5 (JIS), B5 (ISO), C5, DL, Monarch, Com-10 Hi-Speed USB 2.0 port (compatible with USB 2.0 specifications) Network interface Qty – 2 Nos.	



		2) Colour Laser Printer with 600x600 colour resolution and 1200x1200 mono resolution 12 PPM speed on mono Network support Standard Paper trays Qty 1 No.	
3.7	LCD Monitors	17" LCD Display for Server Racks	
3.8	KVM Switches	8/12 Port KVM Switches with Cables & External Power source	
3.9	LCD Screens	42" LCD Screen Display for Display of Monitoring events of Data Center and NOC	



Networking			
4	Components		
	Router General Specifications	<p>1. The software on router must have software-reconfiguration to ensure changes made to a router configuration take place with immediate effect.</p> <p>2. Router should be capable of booting from a remote node, where the router image is present</p> <p>3. All Routers should be of same make and should support SNMP</p>	
4.1	Router Type-I	<p>WAN Ports: 2 Sync Serial ports, 1 ISDN BRI ports</p> <p>LAN Ports: 2 10/100 integrated ethernet ports.</p> <p>Memory: 128MB memory , 32Mb Flash</p> <p>Should support Integrated hardware based encryption facility in the system board</p> <p>Forwarding capability should be at least 75Kpps using 64-byte packet size</p> <p>The Router should be a single box configuration and should be modular</p> <p>Integrated Web Based Management and Configuration Facility</p>	
4.2	Router Type-II	<p>WAN Ports: 4 Channelised E1 ports</p> <p>LAN Ports: 2 10/100/1000 integrated ethernet ports.</p> <p>Memory: 512 MB memory , 128Mb Flash</p> <p>Forwarding capability should be at least 300 Kbps using 64-byte packet size</p> <p>The Router should be a single box configuration and should be modular,</p>	
4.3	Switch Type-I	<p>24 no 10/100 ports</p> <p>Uplink: 2 Gigabit (Fiber) Uplink Ports</p> <p>SNMP support should be there</p>	
4.4	Switch Type-II	<p>Port: Min 12 10/100 Ethernet Port , at 20 least</p> <p>Gbps switching Fabric</p> <p>Should support auto sensing 10/100 T protocol.</p> <p>Should have port Security Features & SSL support</p> <p>Should be a managed Ethernet switch with SNMP support</p>	
4.5	Switch Type-III	The Switch should be modular multilayer switch.	



		<p>Min 64 Gbps nonblocking switch fabric</p> <p>Dual Hot-swappable power supplies.</p> <p>Min 256 MB, Hardware-based Express Forwarding IP routing at 48 mpps</p> <p>Port: The Switch should also have 24 x 10/100 Fast Ethernet ports</p> <p>Uplink: Min 12 Gigabit (fiber) Uplink Ports</p> <p>Should be a Managed Switch with SNMP support</p>	
4.6	Switch Type-IV	<p>Port: Min 48 10/100/1000 Ethernet Port , at least 30 Gbps switching fabric</p> <p>Should support Port Security Features and VLAN support</p> <p>It should be a single box Configuration multiplayer switch</p> <p>All RMON groups should be supported</p> <p>SNMP Support should be there</p>	
4.7	Wireless Access Point	<p>2.4 GHz WLAN solution, delivers data rates of up to 54 Mbps with backwards compatibility to legacy 802.11b equipment.</p> <p>Supports Inline Power over Ethernet</p> <p>Quality of Service (QoS)</p> <p>Auto channel selection to determine least congested channel ,multiple SSID(minimum 8)</p>	
4.8	Firewall Type-I	<p>The appliance based security platform should be simultaneously capable of providing firewall, inline intrusion prevention, IPSec and SSL VPN Services.</p> <p>Should have firewall throughput of at least 300 Mbps</p> <p>It should have 4 gigabit Ethernet ports.</p> <p>Should provide high availability support.</p> <p>Gateway Antivirus integration for http, ftp, IMAP, POP3 and SMTP filtering (If not integrated in Firewall Vendor should quote separate appliance</p>	



		based device	
4.9	Firewall Type-II	<p>The firewall should be appliance based</p> <p>Should provide high availability support.</p> <p>Should have 6 10/100 Ethernet Ports</p> <p>Should have 128MB memory</p> <p>Support for 168-bit 3DES IPsec VPN throughput: Up to 120 Mbps, 128-bit AES IPsec VPN throughput: Up to 120 Mbps</p>	
4.10	Load Balancer	<p>The load balancer should be hardware based.</p> <p>Ethernet Ports: Min 12 10/100 Ethernet Ports</p> <p>Backplane speed: At least 15 Gbps Support: SSL, Sticky cookie insertion, HTTP 1.1</p> <p>Management: Secure Web based management</p> <p>Operation: Two switches to operate in dual-redundant mode</p> <p>Housing: Rack Mounted with all rack accessories supplied</p>	
4.11	NMS	<p>The Routers, Switches, Firewalls, NIDS, should be manageable from the Network Management Software only.</p> <p>Complete GUI based task execution.</p> <p>Should be able to define specific event filters and thresholds as well as the action that must be taken as a result of the event (for example, logging, e-mail alert, audible alert and executing a user-defined action based on a script).</p> <p>The package supports for automated fault detection that recognizes common problems in the network without forcing the user to define and set up their own set of rules, etc.</p>	
4.12	Modems	<p>Operation: Operates over 2-wire and 4-wire lines,</p> <p>Rate : between 64 kbps and 2048 kbps,</p> <p>Features: X.21, V.35, RS-530, G.703/G.704 E1/T1 support</p> <p>Range: operation range to up to 10 km</p>	



		Diagnostics: Provides extensive diagnostics, including loop-backs,	
4.13	LAN Passive Components	LAN Passive Components 6U Rack with accessories 12 Port Jack Panel CAT6 UTP Patch Cord (3ft) CAT6 UTP Patch Cord (7ft) I/O Boxes (RJ45 Socket, Safe Plate, TR Box and Gang Box) CAT6 UTP Cable	
5	Software & Licences		
5.1	Oracle software for Unix based database server	Database Enterprise Edition, Real Application Clusters, Partitioning, Tuning and Diagnostic Pack. The quantity of the oracle processor based license will be as per the hardware configuration Quoted.	
5.2	Oracle software for Unix based Application server	Oracle Application Server Enterprise Edition 10G, the quantity of the oracle license will be as per the hardware configuration Quoted	
5.3	Windows 2003 Advanced Server	Windows 2003 advanced server CAL English licensed with SA pack user CAL, the quantity of windows license as per the hardware configuration quoted.	
5.4	Windows CAL License	Windows Client access license	
5.5	Oracle software for UNIX based web server	Oracle Application Server Enterprise Edition, the quantity of the oracle processor based license will be as per the hardware configuration Quoted	
5.6	Oracle software for UNIX based Development Server	Database Enterprise Edition, Partitioning, Tuning Pack, Diagnostic Pack. Internet Application Server Enterprise Edition, Internet Developer Suite (Named User license), Programmer (Named User license) The quantity of the oracle processor	



		based license will be as per the hardware configuration Quoted.	
5.7	Mail Software & License	Microsoft Exchange Server 2003 Enterprise Edition English Sa Pack OLP	
5.8	Mail server CAL License	Microsoft exchange client license	
5.9	Antivirus with Spam protection software & License (Gateway Antivirus and Desktop)	<p>Centralized management for easy deployment for product updates and system monitoring</p> <p>Real-time scanning of complete gateway traffic for HTTP, FTP and SMTP</p> <p>Detects and removes virus and other malicious code from email, attachments and public folders for real-time protection</p> <p>view virus activity, configure defences, set security policies and update protection throughout the network from a single console at any location</p> <p>Offers enterprise-wide reports to improve responses to future outbreaks by identifying network and system vulnerabilities</p> <p>efficiently safeguard multiple print, file and application servers and domains from virus attacks</p>	
5.10	Microsoft SQL Server Enterprise Edition	Microsoft SQL Server Enterprise Edition x64 English Lic with SA Pack OLP	
5.11	Microsoft Office	Microsoft Office 2007 Professional Plus Hindi Compatible.	
5.12	Microsoft Visio License	Microsoft Visio professional 2007 license with SA pack OLP.	
5.13	Crystal Report Server based	5 Developer Licenses and 1 Runtime server license	
5.14	Toad	PL-SQL Developer Software for data management in operational environment	
5.15	Rational Robot	1 Floating Server License	



	User License		
5.16	Rational Rose Enterprise User License	Rational Rose Enterprise 1 User Licenses	
5.17	Office SharePoint Server English License	Office SharePoint Server English License with SA packs OLP.	
5.18	Office SharePoint designer	Office SharePoint designer English license with SA pack OLP.	
5.19	Office SharePoint CAL English License	Office SharePoint CAL 2007 English OLP user CAL	
5.20	Biz Talk Server Ent English License	Biz Talk Server Enterprise English License with SA packs.	
5.21	Biz Talk Server Developer English License	Biz Talk Server Developer English License with SA packs.	

6.8. Facility Management Services

Scope of Work:

The Bidder has to provide Technology Facility Management Services for all the Value Added Tax Department offices, Treasury Department Offices, and Office of District Magistrate. Under Technology Facility Management Services the bidder will be providing following Services:

Server Configuration, Management and OS Administration Service

- Managing Server Resources (Disk space, volumes, groups, user access)
- Purging of temporary Files, logs and cores
- Virus prevention, detection and cure



- Data backup and restoration on request
- Creating/modifying/deleting groups and user accounts
- Controlling user rights
- Maintaining data and access security
- Customizing login scripts
- MIS Reports
- Monthly Server availability and utilization Report
- Monthly Server Uptime report

Backup and Restoration Service

- Maintain Consistent set of Data Sets as per backup policy
- Periodic Verification of backup integrity
- Media requirement projection
- Media identification and controlling media retirement
- Disaster Recovery Plan
- MIS Reports
- Monthly report on Backup Plan and activity
- Monthly Restoration drill report
- Media requirement report

Desktop Support Services

- Co-ordination Hardware/software Installation
- Post Installation acceptance test
- Configurations of Desktops for Desired Usage
- Installation and restoration Of standard desktop settings (Icons, wall papers, screen savers, virus guard and update
- Installation of print server, Configuring printers on Desktops
- Installation of application client software on desktops
- Installation/configuration of client software on Desktops
- MIS Reports
- Monthly Hardware performance report
- Monthly Desktop Software Problem report



Virus Control

- Monitoring deployment of Antivirus on all desktops
- Updating latest antivirus DATs on Desktops
- Disinfecting desktops affected if any
- Coordinating with antivirus service provider for information and support for virus attacks
- MIS Reports
- Monthly Antivirus Update Report
- Monthly Virus Detection Report

Severity Code Definition Chart:

Severity Code	Definition
S1	Server and other hardware related problem affecting all or most of the user/users Top management desktop related problem Virus prevention and cure on servers Lease Line and VPN connectivity WAN/LAN problem affecting multiple users
S2	User desktop hardware breakdown problems Virus prevention on desktops Virus disinfection on desktops
S3	Printer Problem Individual user service requests
S4	Backup Failure
S5	Various MIS reports

Problem Escalation Matrix

The following will be the escalation levels followed within the department to ensure support on technical issues arising out of the operations

Escalation	1 st Level	2 nd Level	3 rd Level



Owner	Sysadmin/Desktop FM Engineer1	Sysadmin/Desktop FM Engineer2 (Site Incharge)	Offsite Project Manager
Turn around Time (TAT)	1 hour	2 hours	More than 4 hours

Service Levels

Service	Service Level
Helpdesk	Onsite support
Severity – S1	Maximum 15 min. working hours call response time
Severity – S2	Maximum 30 min. working hours call response time
Severity – S3	Maximum 1 working hours call response time
Severity - S4	Maximum 2 working hours call response time
Severity – S5	Maximum 4 working hours call response time



Section VI

Annexure – Template



Appendix -1 Bid Letter (Technical) Template

Date: dd/mm/yyyy

To,
<< Address >>

Reference: Tender Number Dated

Sir,

We hereby declare:

- i. We are the authorized agents of the manufacturers / developer of the hardware / networking equipment and system software proposed in our solution.
- ii. That we are equipped with adequate maintenance and service facilities within India for supporting the offered equipment and software. Our maintenance and service facilities are open for inspection by representatives of BSEDC.

We hereby offer to supply the equipment / system software and provide the services at the prices and rates mentioned in the attached commercial bid.

In the event of acceptance of our bid, we do hereby undertake:

- i. To supply the equipment / system software and commence services as stipulated in the schedule of delivery forming a part of the attached technical bid.
- ii. We affirm that the prices quoted are inclusive of delivery, installation, and commissioning charges and all sales/service taxes. (Octroi and any local levies will be charged on actual on submission of proof of remittance.)

We enclose herewith the complete Technical Bid as required by you. This includes:

1. Bid particulars
2. This bid letter
3. Proposed Data Center architecture, detailed technical solution, details of equipment and services offered
4. Proposed Project Plan and Implementation Schedule



5. Statement of deviation from requirement specifications
6. Statement of deviation from tender terms and conditions
7. Schedule of delivery
8. Warranty for the period of 3 years for all the equipments / system software supplied through this RFP
9. Manufacturer's authorization form(s)

We agree to abide by our offer for a period of 180 days from the last date of submission of commercial bid prescribed by BSEDC and that we shall remain bound by a communication of acceptance within that time.

We have carefully read and understood the terms and conditions of the tender and the conditions of the contract applicable to the tender. We do hereby undertake to provision as per these terms and conditions.

- i. The deviations from the requirement specifications of tendered items and schedule of requirements are only those mentioned in section

OR (Strike out whatever is not applicable)

There are no deviations from the requirement specifications of tendered items and schedule of requirements.

- ii. The deviations from the terms and conditions of the tender are only those mentioned in section

OR (Strike out whatever is not applicable)

There are no deviations from the terms and conditions of the tender.

We hereby certify that the Bidder is a Directorate and the person signing the tender is the constituted attorney.

Bid Security in the form of a Demand Draft / Bank Guarantee issued by _____ (bank), valid till ___/___/____ (dd/mm/yyyy), for an amount of **Rupees 1.00 Crores (One Crore)** is enclosed in the cover containing pre-qualifying requirements.

We do hereby undertake, that, until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and notification of award of contract, shall constitute a binding contract between us.



Signature of Bidder (with official seal)

Date

Name

Designation

Address

Telephone

Fax

E-mail address

Details of Enclosures:

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**Appendix 2 – Bidder profile**

Sr. No	Details	
1	Name of the Firm	
2	Registered Office address Telephone Number Fax Number e-mail	
3	Correspondence/ contact address	
4	Details of Contact person (Name, designation, address etc.) Telephone Number Fax Number e-mail	
5	Is the firm a registered company? If yes, submit documentary proof. Year and Place of the establishment of the Company	
6	Former name of the company, if any.	
7	Is the firm <ul style="list-style-type: none">➤ Government/ Public Sector Undertaking propriety firm➤ partnership firm (if yes, give partnership deed)➤ limited company or limited corporation➤ member of a group of companies (if yes, give name and address, and description of other companies)➤ subsidiary of a large corporation (if yes give the name and address of the parent organisation) If the company is subsidiary, state what involvement if any, will the parent company have in the	



	project.	
8	Is the firm registered with sales tax department? If yes, submit valid sales tax registration certificate.	
9	Is the firm registered for service tax with Central Excise Department (Service Tax Cell)? If yes, Submit valid service tax registration certificate.	
10	Is the firm registered under Labour Laws Contract Act? If yes, submit valid registration certificate.	
11	Attach the organizational chart showing the structure of the organization including the names of the directors and the position of the officers. Total number of employees	
12	Number of years of experience:	
13	Are you registered with any Government/ Department/ Public Sector Undertaking (if yes, give details)	
14	How many years has your organization been in business under your present name? What were your fields when you established your organization? When did you add new fields (if any)?	
15	What type best describes your firm? (documentary proof to be submitted) · Manufacturer · Supplier · System Integrator · Consultant · Service Provider (pl. specify details) · Software Development · Total solution provider (Design, Supply, Integration, O&M) · IT Company	
16	Number of Offices / Project Locations	



17	Do you have a local representation /office in Bihar? If so, please give the address and the details of staff, infrastructure etc in the office and no. of years of operation of the local office	
18	Please give details of Key Technical and Administrative staff who will be involved in this project, their role in the project, their Qualifications & experience and the certification attained from network product vendor. (documentary proof to be submitted)	
19	Is your organization has SEI –CMM / ISO 9000 certificates? If so, attach copies of the certificates. State details, if certified by bodies, other than that stated.	
20	List the major clients with whom your organization has been/ is currently associated.	
21	Were you ever required to suspend a project for a period of more than three months continuously after you started? If so, give the names of project and reasons for the same.	
22	Have you in any capacity not completed any work awarded to you? (If so, give the name of project and reason for not completing the work)	
23	In how many projects you were imposed penalties for delay? Please give details.	
24	The bidder shall disclose details pertaining to all contingent liabilities, claims, disputes, matters in appeal & in court and any pending litigation against the bidder. If nil, an undertaking from the bidder/ prime member of the consortium mentioning the same.	
25	Whether your organisation has Bank's certificate of solvency. If yes, submit documentary proof.	
26	Have you ever been denied tendering facilities by any Government/ Department/ Public sector	



Tender No: BRAIN DC / Beltron 2007/02

BRAIN Data Center Project

	Undertaking? (Give details)	
--	-----------------------------	--



Appendix 3 Financial Information Summary

S. NO	Name of the Bidder	Segment wise Turnover	Turn Over (Rs. Crores)		
			02-03	03-04	04-05
1		IT infrastructure projects (Specific to Data Center establishing, hardware, software etc.,)			
2		IT Services			
3		Facility Management Services			
4		Software Development			

Note : Please enclose balance sheet and profile & Loss statement.



Appendix -4 Manufacturer's / Developer of System Software Authorization Form

Date: dd/mm/yyyy

To,

Reference:

Sir,

We _____, (*name and address of the manufacturer / developer*) who are established and reputed manufacturers / developer of _____ having factories / developed centers at _____ (*addresses of manufacturing / development centers locations*) do hereby authorize M/s _____ (*name and address of the bidder*) to bid, negotiate and conclude the contract with you against the above mentioned tender for the above equipment manufactured / system software developed by us.

Yours faithfully,

For and on behalf of M/s _____ (*Name of the manufacturer/ developer of system software*)

Signature _____

Name _____

Designation _____

Address _____

Date _____

Directorate Seal

Note: This letter of authority should be on the letterhead of the concerned manufacturer / system software developer and should be signed by a person competent and having the power of attorney to bind the manufacturer / developer.



Appendix 5 Firm Experience

Assignment Name:	
Location within Country:	Professional Staff Provided by Your Firm
Name of Client:	No. of Staff:
Address:	No. of Staff-Months; duration of assignment
Start Date (Month/Year):	Completion Date
	Approx. Value of Services :
	(Month/Year):
Name of Associated Consultants, if any:	No. of Months of Professional Staff, provided by Associated Consultants:
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:	
Narrative Description of Project:	
Description of Actual Services Provided by Your consultant :	



Appendix 6 Team Composition and Task Assignments Summary

Name	Qualifications	Year of Experience	Area of Expertise	Task & Position Assigned



Appendix 7 Curriculum Vitae for Proposed Staff

1. **Proposed Position** [*only one candidate shall be nominated for each position*]:
2. **Name of Firm** [*Insert name of firm proposing the staff*]:
3. **Name of Staff** [*Insert full name*]:
4. **Date of Birth:** **Nationality:**
5. **Education** [*Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment*]:
6. **Membership of Professional Associations:**
7. **Other Training** [*Indicate significant training since degrees under 5 - Education were obtained*]:
8. **Countries of Work Experience:** [*List countries where staff has worked in the last ten years*]:
9. **Languages** [*For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing*]:
10. **Employment Record** [*Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, positions held.*]:

From [Year]: To [Year]:

Employer:

Positions held:



<p>11. Detailed Tasks Assigned <i>[List all tasks to be performed under this assignment]</i></p>	<p>12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned <i>[Among the assignments in which the staff has been involved, indicate the following information for those assignments that best illustrate staff capability to handle the tasks listed under point 11.]</i> Name of assignment or project: Year: Location: Client: Main project features: Positions held: Activities performed:</p>
--	--

13. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Date:

[Signature of staff member or authorized representative of the staff] Day/Month/Year

Full name of authorized representative:



Appendix 8 Statement of deviation from requirement Specification

Date: dd/mm/yyyy

To,

Reference:

Sir,

There are no technical deviations (null deviations) from the requirement specifications of tendered items and schedule of requirements. The entire work shall be performed as per your specifications and documents.

OR (Strike out whatever is not applicable)

Following is the exhaustive list of technical deviations and variations from the requirement specifications of tendered items and schedule of requirements. Except for these deviations and variations, the entire work shall be performed as per your specifications and documents.

S. No.	Section No.	REQ No.	Page No.	Statement of deviations and variations
1.				
2.				

Witness

Signature _____
Name _____
Designation _____
Address _____
Directorate _____
Date _____

Bidder

Signature _____
Name _____
Designation _____
Address _____
Directorate _____
Date _____

Directorate Seal



Appendix 9 Statement of deviation from tender terms and conditions

Date: dd/mm/yyyy

To,

Reference:

Sir,

There are no deviations (null deviations) from the terms and conditions of the tender. All the terms and conditions of the tender are acceptable to us.

OR (Strike out whatever is not applicable)

Following are the deviations from the terms and conditions of the tender. These deviations and variations are exhaustive. Except these deviations and variations, all other terms and conditions of the tender are acceptable to us.

S. No.	Section No.	Page No.	Para	Statement of deviations and variations
1.				
2.				

Witness

Signature _____
Name _____
Designation _____
Address _____
Directorate _____
Date _____

Bidder

Signature _____
Name _____
Designation _____
Address _____
Directorate _____
Date _____

Directorate Seal



Appendix 10 - Bid letter – Commercial

Date: dd/mm/yyyy

To,

Reference:

Sir,

We hereby declare:

- i. We are the authorized agents of the manufacturers / developer of system software of all the equipment / system software proposed in our solution.
- ii. That we / our principals (manufacturer / developers) are equipped with adequate maintenance and service facilities within India for supporting the offered equipment / system software. Our maintenance and service facilities are open for inspection by representatives of BSEDC.

We do hereby undertake that, in the event of acceptance of our bid, the supply of equipment / system software and commencement of services shall be made as stipulated in the schedule of delivery forming a part of the attached technical bid.

In the event of acceptance of our bid, we do hereby undertake that:

- iii. To supply the equipment / system software and commence services as stipulated in the schedule of delivery forming a part of the attached technical bid.
- iv. We affirm that the prices quoted are inclusive of delivery, installation, and commissioning charges and all sales/service taxes. (Octroi and any local levies will be charged on actual on submission of proof of remittance.)

We enclose herewith the complete Commercial Bid as required by you. This includes:

1. This bid letter
2. Bid particulars
3. Statement of commercial deviation
4. Commercial quote



We agree to abide by our offer for a period of 180 days from the last date of submission of commercial bid prescribed by BSEDC and that we shall remain bound by a communication of acceptance within that time.

We have carefully read and understood the terms and conditions of the tender and the conditions of the contract applicable to the tender. We do hereby undertake to provision as per these terms and conditions.

- i. The deviations from the requirement specifications of tendered items and schedule of requirements are only those mentioned in Appendix 8

OR (Strike out whatever is not applicable)

There are no deviations from the requirement specifications of tendered items and schedule of requirements.

- ii. The commercial deviations of tendered items are only those mentioned in Appendix 11.

OR (Strike out whatever is not applicable)

There are no commercial deviations.

- iii. The deviations from the terms and conditions of the tender are only those mentioned in Appendix 9

OR (Strike out whatever is not applicable)

There are no deviations from the terms and conditions of the tender.

We hereby certify that the Bidder is a Directorate and the person signing the tender is the constituted attorney.

Bid Security in the form of a Demand Draft / Bank Guarantee issued by _____ (bank), valid till ___/___/____ (dd/mm/yyyy), for an amount of Rupees One Crore is enclosed in the cover containing pre-qualifying requirements.

We do hereby undertake, that, until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and notification of award of contract, shall constitute a binding contract between us.

Signature of Bidder (with official seal)

Date

Name



Tender No: BRAIN DC / Beltron 2007/02

BRAIN Data Center Project

Designation

Address

Telephone

Fax

E-mail address

Details of Enclosures:

Index Page Nos

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.



Appendix 11 - Appendix Statement of Commercial Deviation

Date: dd/mm/yyyy

To,

Reference:

Sir,

There are no deviations (null deviations) from the requirement specifications of tendered items and schedule of requirements and hence there are no commercial deviations. The entire work shall be performed as per your specifications and documents.

OR *(Strike out whatever is not applicable)*

Following is the exhaustive list of commercial deviations and variations from the exceptions to the specifications and documents for the above mentioned tender. Except for these deviations and variations, the entire work shall be performed as per your specifications and documents.

S. No.	Section No.	REQ No.	Page No.	Statement of deviations and variations
1.				
2.				

Witness

Signature

e

Name

Designation

Address

Directorate

Date

Bidder

Signature

Name

Designation

n

Address

Directorate

e

Date



Directorate Seal

**Appendix 12 – Commercial Quote****Part A: Data Center Commercial quote for Physical Infrastructure, Technology Infrastructure.**

Sr. No	Particulars	Activity	Amt in Rs.
1	Data Center	Design, Development, deployment, installation and commissioning of physical infrastructure site of Data Center	
2	Data Center	Delivery, installation and commissioning of technology infrastructure hardware and system software etc.,	
		Total Amount	

Amount in Words _____

Part B: Data Center Commercial quote for Managed Services.

Sr. No	Particulars	Amt per Quarter in Rs.	Amt in Rs. For 3 years
1	Managed Services		
		Total Amount	

Amount in Words _____

Part C: Technology Facility Management Services at Department Level



Sr. No	Particulars	Amt per Quarter in Rs.	Amt in Rs. For 3 years
1	Facility Management Services		
		Total Amount	

Amount in Words _____

Part D: Total Commercial Quote

Sr. No	Particulars	Amt in Rs.
1	Data Center (Part A)	
2	Managed Services (Part B)	
3	Facility Management Services (Part C)	
	Grand Total	

Terms of Payment:

- 10% of Part D bid amount as Performance Bank Guarantee should be discharged by the bidder at the time of signing contract.
- 60% of Part A (1+2) bid amount will be paid to the bidder after the commissioning of the facilities. (“**Commissioning**” means physical and technology infrastructure both to be commissioned and systems should be ready for production environment).
- 20% of Part A (1+2) bid amount will be paid to the bidder after running the systems successful for 3 months from the date of commissioning.
- 20% of Part A (1+2) bid amount will be paid to the bidder after running the systems successful for 6 months from the date of commissioning.
- Quarterly payment of Part B and Part C of the bid amount will be paid to the bidder in arrears after adjusting the SLA parameters.
- The amounts indicated should be final after all taxes, cess, levy, duties, insurance till the time of commissioning, transport, cartage, installation, and commissioning.
- Conditional bids will be not accepted and will be summarily rejected.



Tender No: BRAIN DC / Beltron 2007/02

BRAIN Data Center Project

Witness

Signature _____

Name _____

Designation _____

Address _____

Directorate _____

Date _____

Bidder

Signature _____

Name _____

Designation _____

Address _____

Directorate _____

Date _____

Directorate Seal



Appendix 13 Component wise pricing

Brief particulars of the goods and services, which shall be supplied/ provided by the Bidder, are as under:

Part A: Hardware and System Software Bill of Materials

Item No.	Name of Goods or Related Services	Description 3 (See Detailed Specifications)	Unit of Measurement 4	Quantity 5	Unit Price 6	Taxes 7	Total 8	Total of (5 X 8) 9
1	Server							
1.1	Web server Type-I		No.	2				
1.2	Web server Type-II		No.	2				
1.3	Development / Maintenance Server		No.	3				
1.4	Windows Server		No.	2				
1.5	Application Server Type-I		No.	6				
1.6	Application Server Type-II		No.	2				
1.7	Database Server (Cluster) Type-I		Cluster Pair	2				
1.8	Database Server (Cluster) Type-II		Cluster Pair	1				
1.9	Database Server (Cluster) Type-III		Cluster Pair	1				
1.10	Email Server		No	2				
2	Storage							
2.1	SAN Storage		No.	1				
2.2	SAN Switch		Pair	1				
2.3	TAPE library		No.	1				
3	Nodes & Accessories							



3.1	Desktop		No.	500			
3.2	Laptop		No.	20			
3.3	Scanners		No.	100			
3.4	Dot Matrix Printers		No.	100			
3.5	Line Printers (for Audit trial)		No.	1			
3.6	Laser Printers (Colour -1 and Mono - 2)		No.	3			
3.7	LCD Monitors		No.	4			
3.8	KVM Switches		No.	4			
3.9	LCD Screens		No.	4			
4	Networking Components						
4.1	Router Type-I		No.	105			
4.2	Router Type-II		No.	2			
4.4	Switch Type-I		No.	13			
4.5	Switch Type-II		No.	100			
4.6	Switch Type-III		No.	2			
4.7	Switch Type-IV		No.	2			
4.8	Wireless Access Point		No.	5			
4.9	Firewall Type-I		No.	2			
4.10	Firewall Type-II		No.	1			
4.11	Load Balancer		Pair	1			
4.12	NMS for Network Equipment Monitoring		No.	1			
4.13	Modems (Quantity varies depending on BSNL provision of MLLN Network) (If E1 interface is provided at router level, in that case modems are not required)		Pair	150			



4,14	LAN Passive Components 6U Rack with accessories 45 Nos. 12 Port Jack Panel – 45 Nos CAT6 UTP Patch Cord (3ft)- 500 No CAT6 UTP Patch Cord (7ft)- 500 No I/O Boxes (RJ45 Socket, Safe Plate, TR Box and Gang Box) – 500 CAT6 UTP Cable – 30 Boxes		Set				
5	Software & Licences						
5.1	Oracle software for Unix based database server			Processor Based			
5.2	Oracle software for Unix based Application server			Processor Based			
5.3	Windows 2003 Advanced Server CAL English Licensed with SA Pack User CAL		Licence	5			
5.4	Windows CAL License		License	1000			
5.5	Oracle software for Unix based web server		License	Processor Based			
5.6	Oracle software for Unix based Development Server		License	1			
5.7	Exchange Server		License	2			



	Enterprise English Lic. With SA pack OLP						
5.8	Exchange Standard CAL English License with SA Pack OLP		License	1000			
5.9	Antivirus with Spam protection software & License		License	1000			
5.10	Microsoft SQL Server Enterprise Edition x64 English Lic with SA Pack OLP		2 Nos. License	Proce ssor based			
5.11	Microsoft Office 2007 Pro+. Lic with SA Pack OLP		License	500			
5.12	Microsoft Visio Professional English License with SA Pack OLP		License No.	2			
5.13	Crystal Reports Server based		License No.	5			
5.14	Toad		License No.	10			
5.15	Rational Robot User License		License No.	1			
5.16	Rational Rose Enterprise User License		License No.	1			
5.17	Office SharePoint Server English License with SA Pack OLP		License No.	2			
5.18	Office SharePoint designer English		License No.	5			



	License with SA Pack OLP						
5.19	Office SharePoint CAL 2007 English OLP User CAL		License No.	500			
5.20	Biz Talk Server Enterprise English License with SA Pack		4 License	4	Proce ssor based		
5.21	Biz Talk Server Developer English License with SA Pack		License No.	5			

Part B: Physical Infrastructure Bill of Materials

Please refer Section 6 Clause 1 & 2 for details of quantities required. The bidder has to provide details of each item and their quote for Physical Infrastructure setup in above Part A format.

Witness

Signature _____
 Name _____
 Designation _____
 Address _____
 Directorate _____
 Date _____

Bidder

Signature _____
 Name _____
 Designation _____
 Address _____
 Directorate _____
 Date _____

Directorate Seal



**Appendix 14: Bank Guarantee- for Earnest Money Deposit
To
The Managing Director
Bihar State Electronics Development Corporation Limited
Government of Bihar
BELTRON Bhawan, Shastri Nagar,
Patna**

Whereas(hereinafter called “the Bidder”) has submitted its Bid dated (date of submission of Bid) for execution of Data Center and Facility Management Services Project in terms of the Tender dated issued by the Managing Director of Bihar State Electronics Development Corporation Limited, Patna, (hereinafter called “the Bid”).

Whereas as per Clause 7 Section 4 of the Bid, the Bidder is required to furnish a bank guarantee as Earnest Money Deposit from a scheduled commercial bank (Bank Guarantee)

In consideration of the fact that the Bidder is our valued customer and the fact that he has submitted the Bid, we, (name and address of the bank), (hereinafter called “the Guarantor Bank”), has agreed to bind ourselves, our successors, and assigns to irrevocably issue this Bank Guarantee and guarantee as under

NOW THIS GUARANTEE WITNESSETH: -

1. If the Bidder
 - (a) withdraws its Bid proposal during the period of Bid validity specified by the Bidder on the Technical Proposal Cover Letter; or
 - (b) having been notified of the acceptance of its Bid by the Managing Director, Bihar State Electronics Development Corporation Limited during the period of Bid Proposal validity:
 - (i) fails or refuses to enter into the Contract; or
 - (ii) fails or refuses to furnish the performance guarantee, in accordance with the Terms of Reference of the Tender document issued to the Bidders.



The Guarantor Bank shall immediately on demand pay the Managing Director, Bihar State Electronics Development Corporation Limited without any demur and without the Managing Director, Bihar State Electronics Development Corporation Limited having to substantiate such demand a sum of Rs 1.00 Crores (One Crore) (Guaranteed Amount).

2. The Guarantor Bank will make the payment of the Guaranteed Amount forthwith on the demand made by the Managing Director, Bihar State Electronics Development Corporation Limited, notwithstanding any objection or dispute that may exist or arise between the Managing Director, Bihar State Electronics Development Corporation Limited and the Bidder or any other person.
3. The demand of the Managing Director, Bihar State Electronics Development Corporation Limited on the Guarantor Bank for the payment of the Guaranteed Amount, shall be deemed as the final proof of fulfilment of the conditions stipulated in (1) above.
4. This Guarantee shall be irrevocable and shall not be discharged except by payment of the above amount by us to the Managing Director, Bihar State Electronics Development Corporation Limited and our liability under this Guarantee shall be restricted to the Guaranteed Amount being Rs 1.00 Crores (One Crore).
5. If it is necessary to extend this Guarantee on account of any reason whatsoever, we undertake to extend the period of this Guarantee on the request of the Bidder under intimation to the Managing Director, Bihar State Electronics Development Corporation Limited.
6. To give full effect to the Guarantee contained herein, the Managing Director, Bihar State Electronics Development Corporation Limited shall be entitled to act as if the Guarantor Bank is the principal debtor in respect of claims against the Bidder and the Guarantor Bank hereby expressly waives all its rights of surety-ship and other rights, if any, which are in any way inconsistent with any of the provisions of this Guarantee.



7. Any notice by way of demand or otherwise may be sent by special courier, telex, fax, registered post or other electronic media to our address as aforesaid and if sent by post, shall be deemed to have been given to us after expiry of 48 hours when the same has been posted.

8. Our liability under this Guarantee will continue to exist until a demand is made by the Managing Director, Bihar State Electronics Development Corporation Limited in writing or up to and including One Hundred and Eighty (180) days after the period of the Bid Proposal validity, i.e. up to _____2007, and any demand in respect thereof should reach the Bank not later than the above date.

Dated this day2004....

Yours faithfully,

For and on behalf of the Guarantor Bank,

(Signature)

Designation

(Address and Common Seal of the bank)



Appendix 15: Performance Bank Guarantee Format.

To

The Managing Director

Bihar State Electronics Development Corporation Limited

Government of Bihar

BELTRON Bhawan, Shastri Nagar,

Patna

Whereas(hereinafter called “the Bidder”) has submitted its Bid dated (date of submission of Bid) for execution of Data Center Project and Facility Management Services project in terms of the Tender dated issued by the Managing Director of Bihar State Electronics Development Corporation Limited, Patna, (hereinafter called “the Bid”).

Whereas as per Section 5 Clause 5 of the Bid, the Bidder is required to furnish a bank guarantee as Performance Guarantee from a scheduled nationalised bank (Bank Guarantee)

In consideration of the fact that the Bidder is our valued customer and the fact that he has submitted the Bid, we, (name and address of the bank), (hereinafter called “the Guarantor Bank”), has agreed to bind ourselves, our successors, and assigns to irrevocably issue this Bank Guarantee and guarantee as under

NOW THIS GUARANTEE WITNESSETH: -

1. If the Bidder
 - (a) having been notified of the acceptance of its Bid by the Managing Director of Bihar State Electronics Development Corporation Limited, Patna, during the period of Bid Proposal validity:
 - (i) fails to perform as per the contract obligations.
 - (ii) On invoking of Section 5 Clause 14 “Termination for Default”;

The Guarantor Bank shall immediately on demand pay the Managing Director of Bihar State Electronics Development Corporation Limited, Patna., without any demur and without the Managing Director, Bihar State Electronics Development Corporation Limited having to substantiate such demand a sum of Rs ____ Lakhs (_____ Lakhs) (Guaranteed Amount).



2. The Guarantor Bank will make the payment of the Guaranteed Amount forthwith on the demand made by the Managing Director, Bihar State Electronics Development Corporation Limited, notwithstanding any objection or dispute that may exist or arise between the Managing Director of Bihar State Electronics Development Corporation Limited, and the Bidder or any other person.
3. The demand of the Managing Director of Bihar State Electronics Development Corporation Limited, on the Guarantor Bank for the payment of the Guaranteed Amount, shall be deemed as the final proof of fulfilment of the conditions stipulated in (1) above.
4. This Guarantee shall be irrevocable and shall not be discharged except by payment of the above amount by us to the Managing Director of Bihar State Electronics Development Corporation Limited and our liability under this Guarantee shall be restricted to the Guaranteed Amount being Rs ____ Lakhs (_____ Lakhs).
5. If it is necessary to extend this Guarantee on account of any reason whatsoever, we undertake to extend the period of this Guarantee on the request of the Bidder under intimation to the Managing Director of Bihar State Electronics Development Corporation Limited.
6. To give full effect to the Guarantee contained herein, the Managing Director of Bihar State Electronics Development Corporation Limited, Patna, shall be entitled to act as if the Guarantor Bank is the principal debtor in respect of claims against the Bidder and the Guarantor Bank hereby expressly waives all its rights of surety-ship and other rights, if any, which are in any way inconsistent with any of the provisions of this Guarantee.
7. Any notice by way of demand or otherwise may be sent by special courier, telex, fax, registered post or other electronic media to our address as afore-said and if sent by post, shall be deemed to have been given to us after expiry of 48 hours when the same has been posted.
8. Our liability under this Guarantee will continue to exist until a demand is made by the Managing Director of Bihar State Electronics Development Corporation Limited, in writing or up to and including 5 year from the date of signing of contract, i.e. up to _____2007, and any demand in respect thereof should reach the Bank not later than the above date.

Dated this day2005....



Tender No: BRAIN DC / Beltron 2007/02

BRAIN Data Center Project

Yours faithfully,

For and on behalf of the Guarantor Bank,

(Signature)

Designation

(Address and Common Seal of the bank

Note: To be executed at the time of Signing of Contract by the Selected Vendor



Appendix 16: Template for Pre-bid Conference queries / Clarifications.

RFP purchase no:

Date:

Name of the Bidder:

Address:

Telephone Nos:

Fax No:

Mobile No:

Email ID:

Sl No:	Particulars of the query / clarification	Clause No:___ Section No:___	Corresponding page no in the RFP Document	Remarks
1				
2				
3				
4				

Authorized Signatory

Designation

(If the queries / clarifications are submitted through e-mail, the bidder should send the queries / clarifications through official e-mail IDs only.)