



## Bharat Heavy Electricals Limited

(A Government of India Undertaking)

P.O. BHEL Jhansi -284120 (UP)

Human Resource Management

Tender Documents for Contract of

**Supply of Biometrics Access Control, On-Line Attendance and CCTV Surveillance System (BACAS), Software, Maintenance and integration with existing system for a Period of Five Years at BHEL Jhansi**

(Tender Enquiry No: -HRM/ TE/ 5/03 REV 01)

<b>Issued To :</b>	
Bid Submission Date & Time	- <b>On or before 29 January 2016 at 13:45 Hrs.</b>
Technical Bid Opening Date & Time	- <b>29 January 2016 at 14:00 Hrs.</b>

REV 01:Date 21/01/16	<ul style="list-style-type: none"> <li>• Qualifying Criteria: note 6 added on page no. 6.of tender document.</li> <li>• Specification of CCTV Camera updated : Para 6.6,6.7,6.8 &amp; 6.10 of tender document .</li> <li>• SL 13,14 &amp; 15 of price bid , page no. 56 updated in line with CCTV Spec.</li> </ul>
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## Notice Inviting Tender (NIT)

To,

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Dear Sirs,

**Subject: Supply of Biometrics Access Control, On-Line Attendance and CCTV Surveillance System (BACAS), Software, Maintenance and integration with existing system and) for a Period of Five Years on Lease at BHEL Jhansi.**

Offer in sealed form are invited for **Supply of Biometrics Access Control, On-Line Attendance and CCTV Surveillance System (BACAS), Software, Maintenance and integration with existing system for a Period of Five Years** as per Technical Specifications and Terms & Conditions as enclosed.

### **General Instructions for the Bidders:**

Specifications and other terms & conditions can be downloaded from our website <http://www.bhel.com> or can also be obtained in-person from the office of Dy. Manager Human Resource Management (HRM) Department, Administrative Building, Ground Floor, BHEL Jhansi 284120 (UP) by depositing a Demand Draft of Rs.1000/- +14.5 % VAT, total Rs.1145/- (non-refundable) in favor of öBharat Heavy Electricals Limitedö payable at Jhansi (UP) or in cash at our Finance Department between 13:00 hrs. to 16:00 hrs. However in case the documents are downloaded from our web site, Demand Draft favoring öBharat Heavy Electricals Limitedö payable at Jhansi of Rs 1145/- shall be enclosed along-with the offer.

BHEL may at its sole discretion amend the bidding documents at any time prior to the deadline for submission of bids. However in case of such amendment, the bid submission date may be extended at the discretion of BHEL.

Amendments made prior to submission of bid will be provided in the form of addenda / corrigendum to the bidding documents and will be posted on the BHEL web site (<http://www.bhel.com>) in tender notification link.

1. Last date for sale of Tender document **is 29/01/16 time 13:00 Hrs.**
2. Last date of submission of offers is up **to 13:15 Hrs. on due date 29/01/16.**
3. The bidder should meet the qualifying criteria mentioned in our Tender document. Compliance to qualifying criteria shall be supported by details like name, address, contact details of firms to whom such system has been supplied. Purchase order copies, commissioning reports, satisfactory performance reports etc. shall also be enclosed.
4. The offer shall be as per our specifications and shall be given in the formats provided in the tender document. Deviations if any along-with justification/write-up shall be clearly mentioned. Here bidder can also offer any better system, if available with them. This shall be clearly mentioned and highlighted in the offer. However BHEL reserves its right to accept or reject the offered system.

Tender should be dropped in the tender box at the address mentioned below:

<p><b>Tender Box</b> <b>CISF Control Room/Office Administrative</b> <b>Building BHEL</b> <b>Jhansi (U.P.)-284120</b></p>
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With Regards

**For & on behalf of BHEL Jhansi**

Gyanendra Singh

Dy. Manager

Human Resource Management

BHEL Jhansi (UP) 284120

Telephone No: - (0510)-2412323

Email Id: - gssachan@bheljhs.co.in

## 1. Qualifying Criteria

Bharat Heavy Electricals Ltd., Jhansi (A Govt. of India Undertaking) invites tenders from bidders who qualify as per criteria below.

Sr. No.	Qualifying Requirements	Format attached as annexure	Whether Documents attached or not
1.	Authorization letter & Certificates from respective OEMs declaring support for a minimum period of Five years from the date of commissioning. ( In case of new Items)	Annexure-B	Yes / No
2.	Earnest Money Deposit (EMD) of Rs.2,00,000/-	Doc. Ref No.	Yes / No
3.	Tender fee of Rs. 1000/- + VAT@14.50%= Rs. 1145/-	Doc. Ref No.	Yes / No
4.	The bidder should have average annual turnover during last 3 years ending 31-Mar-2015 for at least Rs. 58 Lakhs. Duly audited Financial Statement / Balance Sheet / Certificate from CA to be submitted as the supporting document along with the offer		Yes/No
5.	<p>*Experience of having successfully completed <u>Biometrics Cum Smart Card Based Access/Attendance recording system and CCTV Surveillance</u> working for a period of more than one year after commissioning, during last 7 years up to 31-Dec-2015 should be either of the following:</p> <p><b><u>In case of Outright Purchase</u></b></p> <p>a. Three similar completed works, each costing not less than the Amount equal to Rs. 60 Lakhs. Or b. Two similar completed works, each costing not less than amount equal to Rs 76 Lakhs. Or b. One similar completed work, costing not less than amount equal to Rs 121 Lakhs.</p> <p><b><u>In case of Lease</u></b></p> <p>a. Three similar completed works, each costing not less than the Amount equal to Rs. 35 Lakhs. Or</p>		Yes / No

	<p>b. Two similar completed works, each costing not less than amount equal to Rs.45 Lakhs. Or b. One similar completed work, costing not less than amount equal to Rs 75 Lakhs</p> <p>*Documentary Proof (Execution Certificate) for the experience to be submitted along with Technical Bid. In case the experience in Private Sector relevant TDS certificate must be attached as the evidence.</p>		
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Note:

- 1) Certificates and evidences should be provided as a proof for all the above mentioned qualification criteria along with the techno commercial bid.
- 2) If the bidders do not fulfill any of the qualification criteria mentioned above, the offer will be rejected.
- 3) The term similar work mentioned in Sr. No. 5 above qualifying criterion is defined as **Biometrics Cum Smart Card Based Access/Attendance recording system and CCTV Surveillance**
- 4) Certificates and evidences should be provided as a proof for all the above mentioned qualification criteria along with the techno commercial bid.
- 5) If the bidders do not fulfill any of the qualification criteria mentioned above the offer will be rejected.
- 6) ***In case of Vendors who have completed overseas project of similar type are required to submit FIRC (Foreign inward remittance certificate) from concerned bank. These remittance are to be clearly reconciled with their invoices and/or purchase orders in against which these remittances has been received.***

## 2. Introduction & Scope of Work

BHEL Jhansi is a premier organization for Electrical Equipment Manufacturing having approximate work force of 3600 persons comprising of Regular Employees, Contractor Workers, Trainees and Apprentices. We were having an Attendance system Installed by M/s CMS Computers Pvt. Ltd. Mumbai since last 5 years.

The details of equipmentø in our existing system and quantity of Card Readers, Turnstile Flap Barrier& Boom Barrier etc. are as under:

Sl No	Item Description	Make	Qty
1	Biometric cum smartcard reader frequency 13.56 MHz, reading range up to 40 mm, response time 2.5 sec.	Sagem/CMS	24
2	Biometric reader	Sagem/CMS	8
3	Smart card reader- For Exit	Sagem/CMS	24
4	Tripod turnstiles	Sivanand Electronics	20
5	Electromagnetic Door Lock, 600 pounds		4
6	Retractable Flap Barriers passage width 520 mm	SivanandElectronics	2
7	Boom Barrier 6 meter	Came India	1
8	Digital camera, Finger Print Scanner		1
9	PTZ Dome IP Camera	DVTEL	8
10	PTZ IP Camera	DVTEL -8 No, CP PLUS 1 No	9
11	Low End Camera Fix IP digital camera	DVTEL	6
12	Video monitoring, recording system ( Hardware and Software )	DVTEL	1
13	ID Card Printer	Datacard CP 40 Plus	1
14	Video Monitoring Display	Samsung	2
15	UPS with 2 Hours battery backup	Offcom System Private Ltd	14

Note: At present we donø have any technical support and detailed specification of existing equipment. The Bidder has to ensure proper maintenance of all the above equipment on as is where is basis. Bidder can visit site to assess the actual condition of equipment for any confirmation and clarification before submission of bid.

**Scope of Work**

The scope of work is to develop a web based Solution for Biometrics Access Control, On-Line Attendance & CCTV Surveillance System and maintaining the existing infrastructure.

The bidder has to successfully make all the existing equipment fully functional as per the requirement. Bidder has to ensure the following:-

- a. Maintenance of Existing Hardware and replacement wherever required.
- b. Oracle10g/11g based Software for attendance system, report generation as per specification.
- c. Smart Card Creation, Printing and capturing of Fingerprint data for Biometrics.
- d. Resident Engineer: At least two full time trained Resident Engineer having training Certificates from OEM and having at least one year working experience in handling such type of solution in an organization and capable of sorting out day to day problems pertaining to the equipment, software and other related issues. Their scope of work is to maintain the existing system and to help in capturing Data for finger print of employees and generation of Identity cards / smart card Printing and get it enabled to the system.
- e. During any change in location of readers; supply and installation of UTP cables from nearest Network Switch to the device shall be done by the bidder.
- f. Maintenance of UPS: Supplier have to maintain existing UPS. The battery bank must be provided by the party and have to be replaced after every 2.5 years or whenever gets faulty.
- g. Manuals (i.e. User Manual, Operation Manual & Administration manual). Manuals for all new equipment shall be provided.
- h. Bidder has to ensure support agreement with the OEM for providing spare and technical support for smooth operations of the system.
- i. LED indication Green & Red may be provided in Existing and New card Readers as Signal of Access Granted as green & Access Denied as red.
- j. Single point power supply and connectivity for the network will be provided at suitable place.
- k. All the necessary equipment, tools etc. which are not described in the documents but necessary for the solution will be provided by the bidder.

### 3.0 Instructions and Guidelines to Bidders

#### 3.1 Bidder to inform himself fully

**3.1.1** The bidder shall closely peruse all the clauses, specifications and requirements etc., indicated in the tender documents, before quoting. Should the bidder have any doubt about the meaning of any portion of the tender specifications or find discrepancies or omissions in the specifications or if the tender documents are found to be incomplete or require clarifications on any of the technical aspects, scope of work etc., he shall at once contact the official inviting the tender and shall be resolved during discussions.

**3.1.2** Bidders are advised to study all the tender documents carefully. Any submission of tender by them shall be deemed to have been done after careful study and examination of the tender documents and with the full understanding of the implications thereof. The specifications and terms and conditions shall be deemed to have been accepted unless otherwise specifically commented upon by the bidder in his offer.

#### 3.2 Procedure for Submission & Opening of Bids

**3.2.1** Tender should not be addressed to any Individual's name but only by designation to:

**Dy. Manager (HRM)  
CISF Control Room/Office  
Administrative Building BHEL  
Jhansi-284120**

**3.2.2** Bids should be free from CORRECTION AND ERASURES, Corrections if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

**3.2.3** Offers should be in ENGLISH and accompanied by detailed technical literature, catalogue and detailed dimensional drawings in ENGLISH or otherwise, the offers will not be considered.

**3.2.4** The Bidders shall submit the offer in THREE INNER ENVELOPES as indicated below which shall be sealed in one outer envelope.

**3.2.5 Part-I: EMD & Techno-Commercial Bid**

**Envelope I:**

- a) This sealed envelope should contain the required EMD amount of Rs.2, 00,000/- in favor of "**Bharat Heavy Electricals Limited**" payable at Jhansi. In the absence of submission of EMD, the offer will be summarily rejected.
- b) Tender fee in the form of Pay Order/ Bank Draft of Rs. 1145.00i.e. Rs.1000+VAT@14.5%in favor of "**Bharat Heavy Electricals Limited**" payable at Jhansi, in case the tender has been downloaded from website. In the absence of submission of tender fee, the offer will be summarily

rejected.

**Envelope II:**

- a. This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked "Part I - Technical and commercial bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder.
- b. The bidder should offer only as per Specification & Checklist (Page No 29 to 45). BHEL Jhansi reserves the right to accept or reject the technical offer. Price bids of only techno-commercially short listed vendors will be opened.

**3.2.6 Part-II: Price Bid**

**Envelope III:**

- a) This sealed envelope should contain price details. This envelope should be clearly marked "Part-II - Price bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder. Prices shall be quoted in Indian Rupees only. Vendor has to give details of applicable taxes clearly. In case of any change in applicable duties till the time of delivery, new rates shall be calculated in line with changes. The changes in the tax rates will be applicable as per actual, subjected to documentary evidence.
- b) Price Bid (Annexure-H) should not contain any technical details and/or Commercial Terms & Conditions as the same are supposed to be contained in PART-I only so that the same can be evaluated before opening of Price Bid(s).

**3.3 Procedure for opening of bids**

- 3.3.1. Part-I ( EMD, Tender Fee & Techno-Commercial Bid) shall be opened on the due date and time as specified in the Tender Notice, in the presence of bidders who may like to attend. Part-II (Price Bid) shall be opened subsequently.
- 3.3.2. Price bid of technically suitable Bidders alone would be opened. The technically suitable Bidders would be informed about the tender opening date.
- 3.3.3. Clarifications if any required by BHEL for Technical evaluation would be sought from Bidders before opening of Part-II - price bid.
- 3.3.4. Purchaser / lessee also reserve the right to open the earlier i.e. superseded prices bids if any, submitted by the bidder(s), if required.
- 3.3.5. Not more than two representatives will be permitted to be present for the tender opening.
- 3.3.6. No correspondence shall be entertained from the bidders after the opening of Price bid(s).

- 3.3.7. Standard pre-printed conditions of the bidders attached to the offer will not be accepted and only those mentioned in the body of his offer will be considered.
- 3.3.8. Unsolicited bids shall not be entertained. Unsolicited revised Price Bids also, shall not be entertained at any stage of the tendering process and will lead to automatic disqualification of the party's bid.
- 3.3.9. Manufacturer's name, trade mark or patent no, if any should be specified.
- 3.3.10. Purchaser / lessee reserve the right to negotiate the tender, if required.
- 3.3.11. **No Literature, Pamphlets is to be enclosed. All such enclosures shall be considered as unread and also will not be considered as part of the quotation.**
- 3.3.12. BHEL reserves the right to go for a Reverse Auction (RA) instead of Opening the submitted sealed price bid, which will be decided after techno-commercial evaluation. Information and general terms and conditions governing RA are given below.

### **3.4 Late Bids**

Any bid received by BHEL after the deadline for submission of bids will be summarily rejected and returned unopened to the bidder.

### **3.5 Evaluation of Bids : BHEL will evaluate the bids as follows;**

#### **Stage-I: Evaluation of Eligibility Criteria of bidder, Technical & Commercial Bids**

These are mandatory requirements to be met by the Bidder.

The EMD would be opened on the tender opening date and if EMD is not furnished the offer will be duly rejected immediately.

Tender not meeting the Qualifying Criteria as mentioned in Tender Document will not be considered for further evaluation.

Commercial and Technical bid including Eligibility Criteria of the bidder shall be opened and evaluated for acceptability of Eligibility ,Technical offer, deviations and their acceptability, technical suitability, acceptance of technical and commercial terms.

BHEL's Tendering Committee will evaluate the Bid submitted by the Bidders. During the Evaluation of the bid, BHEL may ask for additional information / resources to validate the bid. These may include Supporting documents towards Eligibility Criteria, Technical documents / white papers from OEM or third party, references, demonstration of a proof of concept or solution, visit to OEM's lab or their clients reference site, etc.

Though, offer of higher warranty/ configuration/ rating, than what is required as per tender Specifications may be accepted, no extra weight age or preference will be given for the same.

Failure to furnish all information as required or to submit a bid not substantially responsive to the bidding documents may result in rejection of the bid. If there are any deviations in the technical solution offered, without affecting the functional requirement, they shall be filled-in the Deviation format issued with the tender document and submitted along with the bid. In case of no deviations, "**No Deviation Certificate**" shall be submitted. The deviations from the tender specification shall be clearly indicated giving the reference of the specification, if any, as per format for declaring deviations. If deviation other than what is specified in the list is found, the bid will be liable for rejection. BHEL reserves the right to accept or reject any deviation.

Bids meeting BHEL's requirements as specified in tender document only will be considered for Stage-II evaluation of the Price Bid.

**Stage -II: Evaluation of the Price Bid:**

Prices of optional items, if quoted, shall not be considered for Price evaluation and comparison. The taxes shall be extra at actual.

After finalizing the techno-commercial offer, BHEL may open the Price Bid or adopt reverse auction (RA) process for arriving at lowest price offer. BHEL will claim depreciation as per provision of income-tax act.

Bidders clearing the Technical and Commercial evaluation will have their Price Bids considered. The total cost of the bid will be calculated as under:

- 3.5.1** Bidder shall quote the equal quarterly rental charges (including Principle repayment, tax, interest, Support Charges, etc.) for 5 years for Hardware, Software, other items in the requirement and the Annual Maintenance Cost of the old items as per the Price Format issued with the tender document. **L1 will be evaluated based on total landed cost to BHEL for a period of 5 years (as per Price Bid format-Annexure-H).**

Payment will be made only for the quarterly rental charge along with the actual expenditure incurred for the quarter against SLNO. 22 (Charges of RFID Smartcard) as defined in Annexure-H.

- 3.5.2 The quarterly rental charges will be payable after the end of each quarter.
- 3.5.3 The bid having the least total cash outflow for 5 years will be considered for order placement.
- 3.5.4 BHEL Reserves the right to retain the hardware, software and other items supplied in this procurement at the end of the lease period on payment of Re. 1/- (Rupee One only). If BHEL does not retain the equipment, the vendor shall dismantle all the equipment and move it away from BHEL's premises. All the software licenses including Oracle will remain with BHEL Jhansi.

### **3.6 BHEL's Right to accept or Reject any or all Bids**

BHEL reserves the full right to accept or reject any bid or to annul the bidding process and reject all bids at any time prior to Contract award, without thereby incurring any liability to the Bidders.

## 4.0 Commercial Terms and Conditions for Bidders

### 4.1 General

The words incorporating singular shall include plural and vice-versa, in the words importing masculine gender shall include feminine and vice-versa and the words importing persons shall include bodies; corporate, limited liability companies, partnership and other legal entities.

Time period for Lease/ AMC shall be for five years (After successful implementation of the system and signing of Project Completion certificate by BHEL).

### 4.2 Expectations from Bidder/Lessors

Bidder/Lessor is required to give a total solution & services as per specifications enclosed. The full working of the system from various blocks and gates is to be implemented. All equipments and services is the responsibility of the Vendor/Lessor. In case, any extra item is required for complete functioning of the system, the same must be included and shall be quoted. Bidder/Lessor is to give in detail the methodology for implementation of the proposed solution.

### 4.3 Contract Agreement

This tender document shall be deemed to form an integral part of the contract to be entered into for this work. The successful bidder shall have to enter into a contract agreement on Non-Judicial Stamp Paper of Rs 100 (Rupees one Hundred Only) within 30 days of award of the contract, which will remain valid for the entire period of the contract.

### 4.4 Supply Condition Software

After supply of Software, the software will be property of BHEL. Bidder has to disclose all passwords to BHEL. The Bidder /Lessor has also to produce a certificate from his principle OEM for back to back support as per enclosed format.

### 4.5 Delivery

Delivery period shall start from the date of Letter of Intent (LOI).The Project is to be **completed within 10 weeks** from the date of LOI.

Bidder has to submit **Project Completion Schedule** along with the offer before starting the work within one week from the date of issue of LOI. **The project completion means acceptance of Total Project by BHEL as per the General Features & Technical Terms and Conditions mentioned at Clause 5.0 of the tender document.**

### 4.6 Rates

Rates to be quoted on lease/ quarter basis for 5 years lease period inclusive of all taxes and duties, freight, handling and packing charges, transit insurance, installation, regular

insurance and on-site comprehensive maintenance including spares during the lease period. Rates shall remain FIRM without any variation till completion of the lease contract.

Rates are to be quoted as per Price Bid Format. Details of prevailing rates of taxes on lease should be indicated separately. Bidders, in their own interest, are requested to check up and indicate the different tax tariff like "Right to use"/service tax/ lease tax etc. on lease rental. Evaluation will be based on taxes indicated by the bidder. Taxes not mentioned by the bidder in their bid will not be entertained at later date. However, during the execution of the contract any increase or decrease in the above taxes/imposition of new taxes on lease will be entertained against documentary proof.

#### 4.7 Payment Terms

The payment of Rental Charges will be made on quarterly basis after completion of each quarter and submission of invoices(s) in triplicate clearly indicating taxes applicable on verified invoices.

Bidder / Lessor have to complete installation at the locations to be identified by BHEL along with LOI/ Order. The first quarter lease payment will be due after completion of the quarter from the date of successful completion of installation & acceptance by BHEL. An installation certificate will be issued by BHEL after meeting all the technical requirements mentioned at clause 5.0. Thereafter, payment will be due at the end of each quarter and made within 15 days after submission of the invoice.

#### 4.8 Earnest Money Deposit(EMD)

Earnest Money Deposit (EMD) for the tender is **Rs. 2, 00,000/- (Rupees Two Lakh only)** payable in the form of Pay Order/ Bank Draft in favors of "Bharat Heavy Electricals Limited" payable at **Jhansi**. In the absence of submission of EMD, the offer will be summarily rejected.

4.8.1 EMD of the Bidder /Lessor shall be forfeited if

**4.8.1.1** After opening of the tender, the Bidder / Lessor revokes his tender within the validity period or increases his earlier quoted rates.

**4.8.1.2** The Bidder / Lessor does not commence the work within the period as per LOI/Contract.

4.8.2 EMD given by all unsuccessful Bidder / Lessor shall be refunded normally within fifteen days of acceptance of award of work by successful Bidder / Lessor.

4.8.3 EMD shall not carry any interest.

4.8.4 EMD of the successful Bidder / Lessor shall be converted into Security Deposit and adjusted against amount due to him.

## 4.9 Security Deposit

Security deposit is to be deposited by the Bidder /Lessor after the issue of LOI/work order but before the start of work.

The rate of Security Deposit will be as below:

- Up to Rs. 10 lakhs: 10%
- Above Rs. 10 lakhs up to Rs.50 lakhs: Rs.1 lakh + 7.5% of the amount exceeding Rs. 10 lakhs.
- Above Rs. 50 lakhs: Rs 4 lakhs + 5% of the amount exceeding Rs. 50 lakhs.

The Security Deposit may be furnished in any one of the following forms:

- i) Cash (as permissible under the Income Tax Act)
- ii) Pay Order, demand Draft in favour of BHEL
- iv) Local cheques of Schedules Banks, subject to realization.
- v) Securities available from Post Offices such as National Savings Certificates, KisanVikas Patras, etc. (Certificates should be held in the name of the Contractor furnishing the security and duly pledged in favour of BHEL and discharged at the back).
- vi) Bank Guarantee in BHEL Format from Scheduled Banks / Public Financial Institutions as defined in the Companies Act subject to a maximum of 50% of the total security deposit value. The balance 50% has to be remitted either by cash or in other form of security.
- vii) Fixed Deposit Receipt issued by Scheduled Banks /Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/c BHEL, duly discharged on the back.
- viii) Security Deposit can also be recovered at the rate of 10% from the running bills. However, in such cases at least 50% of the security Deposit should have been deposited before the start of the work and the balance 50% may be recovered from the running bills.
- ix) EMD of the successful Tenderer shall be converted and adjusted against the security Deposit
- x) The Security deposit shall not carry any interest.

## 4.10 Penalty for Delay in Project Completion

For the delay in **project go live (i.e. Installation, integration & report retrieval)**, penalty shall be levied at the rate of 0.5% per week subject to maximum of 10% of the Total Contract Value.

## 4.11 Deduction for Downtime

Bidder/Lessor shall be responsible for running the system at the uptime of 98% per month or higher. The deduction for downtime will be as mentioned below.

Deduction from payments will be made for non-availability of any of the equipment for any downtime during the entire lease period as detailed below. The downtime will be calculated on hourly basis per month on 24 hours basis. While the reports for downtime should come electronically for all the devices on monthly basis.

#### **Downtime calculation for the supplied equipment & services**

Bidder /Lessor shall be responsible for running the system at the uptime of 98% per month or higher. The deduction for downtime will be as mentioned below.

Deduction from payments will be made for non-availability of any of the equipment for any downtime of 4 Hrs or more during the entire lease period as detailed below. The downtime will be calculated on hourly basis per month on 24 hours basis

#### **Downtime calculation**

Deduction from payments will be made based on downtime of equipment(s) monitored on daily basis. The amount to be deducted will be calculated as per the deduction formula given below:

**If equipment is down for > 4 Hours in a day: Say for 'X' Hrs**

**Quarterly Rental amount of equipment is Rs. A**

**then the deduction for equipment will be: Rs.  $[A / (90*24)] * X$**

For downtime deductions, the total downtime shall be taken into consideration, which implies that the allowed grace period of 4 Hrs shall also include for penalty.

Downtime calculation will be applicable for non-availability of services arising because of malfunctioning of Smart Card Readers, Servers, Network connectivity failure between edge level switch & the Smart Card Reader etc.

**Note: If the uptime for any equipment falls below 98% continuously for 1 month, the equipment shall have to be replaced by the Bidder/Lessor, without any extra charge. The downtime will be recorded at Purchase order item level. Even In case of failure of a component in an item, the deduction will apply to the whole item. If the failure of an item results in of major service outage or affects the services provided by other items also, then the deduction will apply to all items affected by the failure.**

#### **4.12 Maintenance**

At least Two number of onsite resident engineers should be provided, to ensure 98% uptime and to coordinate daily operations including monitoring, maintenance & support for 24x7 working. No separate payment for the deployment of manpower will be made. Bidder must quote their rate along with the equipment in Annexure-H.

Maintenance service shall cover services, repairs and replacements necessary to keep the equipment in good working condition during the contract period. However in case of any defect or sabotage or damage due to any reason whatsoever, the same equipment should be rectified/replaced by the vendor within 24 hrs of reporting of such incident. Vendor shall maintain sufficient equipment inventory onsite to rectify/replace the damaged/defective/non-functioning equipment. Periodic maintenance check should be carried out to keep the equipment in good working conditions and vendor has to submit the quarterly maintenance report to BHEL. Maintenance covers spare parts including all plastic, glass, rubber parts etc.

#### **4.13 Training**

Training of four BHEL personnel will be part of the contract. During installation at our location/campus the associated BHEL coordinators will be guided on the configuration being made and usage.

#### **4.14 Indemnity**

Bidder/Lessor shall fully indemnify and keep indemnified the Purchaser/Lessee against all claims;

- a. Which may be made in respect of the use of Item(s)/services supplied/rendered by the Vendor/ Lessor, for infringement of any rights protected by patent, registration of designs or trademarks and legality of the Software?
- b. For injury or damage caused by his negligence or the negligence of his employees or arising from any defect in the goods supplied or any work carried out by him.
- c. For injury to his employees or employees of his agent(s), whilst on Purchaser's premises.
- d. Any other claims of whatsoever nature arising during the course and out of the execution of this Order/Contract.

All such claims in this regard will be settled as per Indian Laws. In the event of any such claims being made against the Purchaser/ Lessee, Purchaser/Lessee will inform the Bidder/Lessor who shall at his own risk and cost either settle any such dispute or conduct any litigation that may arise there from.

#### **4.15 Confidentiality**

Bidder /Lessor shall, at all times, undertake to maintain complete confidentiality of all data, information, software, drawings & documents, etc. belonging to the Purchaser/Lessee and also of the Systems, procedures, reports, input documents, manuals, results and any other company documents discussed and/or finalized during the course of execution of the order/contract.

#### **4.16 Force Majeure**

Bidder /Lessor shall not be responsible for delay in delivery resulting from acts/events beyond his control provided notice of the happening of any such act/event is given by the Vendor/Lessor to the Purchaser/Lessee within 15 days from the date of its occurrence. Such acts/events shall include but not be limited to acts of God, war, floods, earthquakes, strikes, lockouts, epidemics, riots, fire or Governmental regulations superimposed after the date of order/contract.

#### **4.17 Risk Purchase**

Purchaser/Lessee shall reserve the right to terminate the order/contract and enter into lease at the risk and cost of the Vendor/Lessor, either the whole or part of the Systems/goods/Service, which the Vendor/Lessor has failed to deliver within the stipulated delivery period or if the same were not available, the best and the nearest available substitute(s) thereof. The Vendor/Lessor would be liable to compensate the Purchaser/Lessee for any loss, which the Purchaser/Lessee may sustain by reason of such lease contract. This clause will be operated only after completion of delivery period including minimum time period for maximum penalty.

#### **4.18 Patents & Trademarks**

Bidder /Lessor shall at all times indemnify the Purchaser/Lessee against all claims which may be made in respect of the Systems/goods/Software supplied by the Bidder /Lessor, for infringement of any right protected by patent, registration of designs or trademarks and legality of usage of Software. In the event of any such claims being made against the Purchaser/Lessee, Purchaser/Lessee will inform the Bidder /Lessor who shall at his own cost either settle any such dispute or conduct any litigation that may arise there from.

#### **4.19 Sub-Contracting**

Order/contract or any part thereof shall not be sub-contracted, assigned or otherwise transferred without prior written consent of the Purchaser/ Lessee.

#### **4.20 Termination of the Lease Contract & Its Consequences**

- 4.20.1 Purchaser/Lessee reserves the right to terminate the order/contract, either wholly or in part, upon situations arising due to non-compliance of stipulations of the Order/contract by the Bidder/Lessor, or nonperformance of the equipment/system below 98% continuously for more than 1 month, at the risk and cost of the Bidder /Lessor.
- 4.20.2 Bidder/Lessor shall continue the performance of the order/contract under all circumstances, to the extent not cancelled.
- 4.20.3 Lessee reserves the rights to cancel the lease agreement with a notice of one month, in case the equipment and services are not found to be satisfactory by the Lessee.
- 4.20.4 **Fore-closure:** In case of fore-closure of the lease agreement by the lessee for reasons not attributable to the vendor, pro-rata compensation will be payable. Compensation will be equivalent to percentage of outright purchase cost and proportionately linked to balance lease period.
- 4.20.5 **CONSEQUENCES:** As soon as the lease agreement is cancelled / terminated by the Lessee, no lease rent will be payable to the Lessor.
- 4.20.6 **SUSPENSION:** BHEL reserves the right to suspend performance of any or all of its obligations under the contract. Such notice shall specify the obligation of which performance is to be suspended, the effective date of the suspension and the reasons therefore. The Contractor shall thereupon suspend performance of such obligations until ordered in writing to resume such performance by the same authority that ordered for suspension

#### **4.21 Settlement of Disputes Jurisdiction**

- 4.21.1. BHEL Reserve the following rights to evaluate the bid as per BHEL policy and Govt. guidelines including CVC / Vigilance guidelines by the tender committee duly constituted by BHEL Management. The decision of BHEL, Jhansi Management or Tender committee duly approved by competent authority shall be final and binding to bidder.
- 4.21.2. Any disputes or differences shall be to the extent possible settled amicably between the parties hereto, failing which the disputed issues shall be settled through arbitration.

4.21.3. However, the Bidder /Lessor shall continue to perform the Order/Contract, pending settlement of dispute(s).

4.21.4. Any matter of dispute arising out of or in connection with this contract shall be under jurisdiction of Jhansi Court only. .

## **4.22 Arbitration**

In all cases of disputes emanating from and in references to this agreement the matter shall be referred to the arbitration of the sole arbitration of the Executive Director/Unit Head of BHEL, Jhansi or any other person (including an employee of BHEL, even though he had to deal with the matter relating to this agreement in any manner) nominated by the said Executive Director/Unit Head to act as sole arbitrator. The arbitration shall be under ~~THE~~ **ARBITRATION AND CONCILIATION ACT OF 1996** latest applicable and the rules there under. The arbitrator may from time to times with the consent of the parties enlarge the time for making and publishing the award.

## **4.23 Acceptance of Order**

Letter of Lessor's acceptance of the LOI/ Order/ Contract is to be submitted within one week. This is to be submitted along with Security Deposit as specified in **clause No. 4.9**.

## **4.24 Shifting of Equipment from a Location to Other**

Shifting of equipment from one location to another within BHEL Jhansi Factory/ Campus shall be the responsibility of the Bidder/Lessor. The time given for shifting and installation of equipment at new location will be mutually agreed and time taken beyond that period will be treated as downtime.

## **4.25 Additional Facility required in Future**

In case any additional facility is required, the Vendor/Lessor shall provide the same at mutually agreed terms. BHEL also reserves the right to extend the lease after expiry of initial period. The extension will be decided on mutually agreed rate (rate should not exceeds the quarterly maintenance charges of the equipment) and terms & conditions and will be valid only after written communication to this effect.

During the contract period, if expansion of the system is required then Bidder /Lessor shall

carryout the work as per rates given in the Work Order on pro-rata basis.

**4.26 Blood Relation** Should a tenderer has a relation whether by blood or otherwise with any of the employees of BHEL, the tenderer must disclose the relations in the Form of Declaration as per format at **Annexure-Gat** the time of submission of Tender failing which BHEL may at its discretion reject the tender or rescind the contract

**4.27 Non-Disclosure Agreement(NDA)** Vendor shall, at all times, undertake to maintain complete confidentiality of all data, information, software, drawings & documents, etc. belonging to the Purchaser and also of the Systems, procedures, reports, input documents, manuals, results and any other company documents discussed and/or finalized during the course of execution of the order/contract. The bidder shall sign a Non-Disclosure Agreement (NDA) with BHEL. By signing the NDA, the bidder agrees not to disclose any confidential information, business or proprietary, as covered by the agreement. The Performa for the Non-Disclosure Agreement is attached as **Annexure-F**.

#### **4.28 Disclosure of Percentage of Domestically Manufactured Electronic Items**

Bidder has to disclose the percentage of domestic value addition in terms of BOM required for the electronics product.

#### **4.29 Legal Compliance**

a) The vendor will comply with all the provisions regarding licensing, welfare and health, insurance. For non-compliance of any provisions, statutory compliance under law, the vendor shall be responsible for penalties levied by the appropriate authority under the Act. The vendor shall also be liable to comply with all other Labour and Industrial Laws and such other Acts and Statutes (including Factories Act, Payment of Bonus Act, minimum wages Act, etc.,). Depositing of ESI, PF contribution as maybe applicable is the responsibility of the vendor. For any default in compliance, the vendor shall be held responsible.

b) The vendor shall compensate BHEL for any loss or damage to the plant/property, material of BHEL due to his workmen/representativesø negligence or otherwise during execution of work.

c) In the event of vendor abandoning the work or BHEL revoking the contract BHEL shall have a right to get incomplete work completed at vendorø risk and cost. BHEL shall have a right to terminate the contract at any time without assigning any reason thereof.

#### **4.30 Release of Security Deposit**

Security deposit will be released on submission of following certificates from departments mentioned as under:-

- i) Completion of work and certification of payment of minimum Wages to employees from contracting department.
- ii) Certificate of compliance of Labour laws from contracting department and verified by HR department.
- iii) Certificate of payment of Bonus by Contracting Department and Verified by HRM Department
- iv) No dues certificate from contractor regarding Service Tax Payment & any other dues liable to be remitted by contractor under Financial Laws to Finance department.
- v) In case of non-satisfactory performance of the contract, BHEL shall have a right of forfeiting the security deposit. In case of any dispute decision of concerned Head of the Department will be final.

## 5.0 General Features and Technical Terms & Conditions

### A. General Requirements

1. Oracle 10g/11g database must be used for the complete application as backend.
2. The Bidder shall specify item wise compliance to Technical Specification and furnish the complete Bill of Material (BOM) with part numbers and quantity for all the products/items. Technical specifications and checklist in line with the desired requirements. The quantities specified in the Annexure-H are indicative only however the actual quantities may vary +/- 10 % depending upon the final survey.
3. Successful bidder shall constitute a project implementation team headed by the project manager. This team will work with BHEL team to formulate the exhaustive project implementation plan. This plan shall be ready before the product delivery for faster execution of the project.
4. The Successful Bidder shall assign a Project Manager with experience of around 2 years as the single point of contact for BHEL.
5. After the placement of LOI, the bidder's team along with Project Manager shall visit BHEL to study:
  - a) The existing processes related to Attendance Recording & Authentication.
  - b) To prepare SRS (Software Requirement Specifications) as per BHEL's requirement.
6. Once the software delivered at site, the Project Manager and a team of Project Engineers will install, configure, test and document the setup to ensure functionality and compliance to the required technical designs.
7. Any software updates, patch updates including version change with respect to the BCRs, Servers, Operating Systems & Application Software should be regularly provided during the entire lease period.
8. Bidder to maintain confidentiality of data and services being provided by BHEL.

### 9. Reverse Auction (RA)

BHEL reserves the right to go for a Reverse Auction (RA) instead of Opening the submitted sealed price bid, which will be decided after techno-commercial evaluation. Information and general terms and conditions governing RA are given below:

#### General Terms and Conditions of RA

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications, BHEL may resort to "**REVERSE AUCTION PROCEDURE**"

i.e., ON LINE BIDDING ON INTERNET.

- a) For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- b) Bidder to submit their acceptance to participate in Reverse Auction.
- c) BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
- d) BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact & get trained.
- e) Business rules like event date, time, Start price, bid decrement; extensions etc. also will be communicated through service provider for compliance.
- f) Vendors have to fax the Compliance form in the prescribed format (provided by Service Provider) before start of Reverse auction. Without this, the vendor will not be eligible to participate in the event.
- g) BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Net cash outflow to BHEL" considering Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
- h) Reverse auction will be conducted on scheduled date & time.
- i) At the end of Reverse Auction event, the lowest bidder value will be known on the network.
- j) The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on Case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.
- k) Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.
- l) In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.
- m) The H1 Bidder (whose quote is highest in online sealed bid) may not be allowed to participate in the RA Process further.
- n) BHEL reserves the right to negotiate with the L1 vendor of the Reverse Auction if needed.

## **B. Functional Requirement**

1. The System should be accessible from our intranet website without any client installation. Since the options have been given to the bidder to use the old items,

therefore the Bidder has to make the best use of these equipment without affecting the performance of the solution.

**2. Attendance Software Features:**

- a. On line Attendance system
- b. Auto Attendance logs impose
- c. Quick Attendance set-up, Easy Learning
- d. Support customized
- e. Reports
- f. Card Identification
- g. Finger Print Biometric Attendance
- h. Password Security

**3. Access Control**

- a. Biometrics Fingerprint/ Smart Card based user identification
- b. Real Time User Monitoring
- c. Instant Alert through email exceptional conditions
- d. Pass validity based on multiple parameters

**4. Time Attendance system**

- a. Automated Fool-proof attendance Capturing System to eliminate the leakage.
- b. Consistent and Transparent Attendance policy by removing manual intervention.
- c. Flexible Time Attendance policies, shift, leave Track time who comes late &leaves early
- d. Manage Official Entry &Exit
- e. Manage Shift and Day-off
- f. Manage Overtime
- g. Manage Holiday
- h. Get worked hours report for payroll

**5. Visitors Management**

- a. Pre-registration of Visitors
- b. Capture and store visitor documents/ Photographs
- c. Visitor e-pass and paper pass
- d. Expedite visitor check in process
- e. Real time recording of visitor in-out
- f. Access control of Visitors

**6. Contract Workers Management**

- a. Workers Database with All Details
- b. Track work orders on-line
- c. Worker Enrollment and Pass creation
- d. Dashboard for real time up-date
- e. Accurate attendance and over time calculations
- f. Reports and analysis using various filters
- g. Shift generation
- h. Export to 3<sup>rd</sup> Party application

**7. Employee Self Service Portal for Employees and Management**

- a. View Attendance
- b. Mark Attendance
- c. View/Plan Shift and schedule
- d. Apply for leave and tour
- e. Apply for attendance Correction
- f. Approve Leave and tour
- g. Authorize attendance
- h. View team attendance

**8. Leave Management**

System will take Employee Master Data from SAP. Bidder shall provide final attendance data (after regularization such as Tour, official visit & HOD approval) in excel format for exporting in BHEL Jhansi SAP system.

**9. Login I.D.:**

Software must have provisions to view Daily, Monthly, Annual Reports, Manage Shift Days, off Days plan Holiday, and to view working status of all card reader as well as s turnstile & Flap Barrier and Boom Barrier gates etc.

Following types of login I.D. must be in software.

- a) Admin I.D. : for time office
- b) HOD I.D. : for concerned HOD
- c) Individual I.D. : for concerned employee
- d) S.O.D. I.D. / Leave Coordinator (LC) ID : for concerned section Head
- e) Super User I.D. : For Unit Head & Head of H.R.

Detailed function and rights of above I.D. shall be as under:

- a) **Admin I.D.:** For time office to maintenance & operation of the system i.e. Manage Employee information .View daily monthly, annual individual, Department wise, Over All, Designation wise, department wise, contract wise, contractor wise reports to manage and pupation of shift master, off day, Holidays Holiday master etc. and to view working status of all card reader as well as s turnstile & Flap Barrier and Boom Barrier gates etc.
- b) **HOD I.D.:** To manage subordinate employees, Leave regularization for official visit, approve out passes and regularize short hours as per company policy. View Daily/ Monthly/ Annual attendance etc. reports for a respective department.
- c) **SOD/Leave Coordinator I.D.:** Same as 9(b) but limited to only respective section of a department.
- d) **Employee (Individual Login) ID:** Employee login must have following provisions: View Personal Attendance, Apply Leave and Official Visits, Apply Regularization, Apply for out Pass, View upcoming Holidays, etc.
- e) **Super user I.D.:** All above rights except maintenance.

**10. Features Applicable Related to Contract Labour and Contract Labour Act:**

**a) Labour Law Compliance:**

Contract Labours are governed by the Labour Law of India. Bidder shall provide software to ensure labour compliances like monitoring the labour license expiry, Form XIV, Form XVI Muster Roll, and Register of Wages in line with form XVII etc.

**b) Compliance under others Acts**

**The Software** can helps in adhering to compliances related to Service Continuity, Man Hours, Max OT, Double Shift etc. Organizations have to follow many norms regarding the service continuity and giving a break after a specific period.

**c) Regularization Analytical Reports:**

In addition to above following analytical reports will also be required: Daily Attendance Report, Monthly Worked Hour Reports, Annual Attendance Report, Individual Leave and Official Visit Report, Summary Leave and Official Visit Report, Short Hour Report, Habitual Absenteeism, Out Pass, Regularization Overtime Reports etc. as per our requirement.

## 6. Technical Specification(Requirement)

### 6.1 Specification of Contactless Smart Card Reader/ Finger Print Reader

Specifications & Performance Requirement				
Sl	Feature	Description	Compliance (Yes / No)	Remark
1.	Description	1. Fingerprint Biometric and Contactless Smart Card Reader with keypad for providing two-factor authentication by reading the card & comparing the fingerprint template Presented to it; Marking the attendance and/or actuating the barrier. Hardware should match the requirement of access control software.		
		2. Should be of Plug and Play Type. Should be possible to replace the faulty reader without needing to reprogram the control unit.		
		3. Fault of one reader should not affect the operations of other readers in the network.		
		4. Reader shall be manufactured using the latest and most accurate state of the art biometric technology and shall support high speed processing		
		5. Should be able to control the various threshold levels and changes in the sensitivity through software.		
		6. At least 3x4 button keypad, 3 navigation keys.		
		7. Reader shall be capable to authenticate the valid users, in combination with smart card, keypad and biometric and / or separately.		
		8. The reader should be able to match any of 4 finger patterns.		
		9. Should be provided with Wiegand Interface input or output (Switchable)		
2.	Body & Mount Type	ABS/Polycarbonate/Metallic material; Tamper proof Mounting shall be single gang or Mullion type. Should be suitable for installation on metal surface; Should be suitable to withstand exterior installations and / or harsh industrial / environmental conditions. Minimum Requirement is IP65 Protection. Readers to be mountable on body of flap barriers& Tripod Turnstile, walls etc.		
2.	RF Card Type	Card reader shall be capable of reading the selected card technologies (RFID Mifare within 13.56 MHz range). The protocol of data from the reader shall be an open format and non-proprietary.		

3.	Read Range	Shall have read range up to 5 cm when used with accepted compatible access card Technology.		
4.	Communication with flap barrier and Tripod Turnstile	Reader shall communicate directly with flap/boom barrier and Tripod Turnstile to actuate the barrier. If reader is not capable of directly communicating with them, then external relay or controller can be provided in-between to actuate the barrier. Cost of relay or controller, if any, shall be built into the reader itself. Cost of signal cable connecting reader / relay / controller / flap barrier / boom barrier / Tripod Turnstile shall also be built into reader.		
5.	Communications	Reader should communicate with central server using TCP/IP protocol over Ethernet or Internet, 10/100 Mbps auto sensing Ethernet with DHCP, SSL, IPv4 and IPv6 Support		
6.	Fault Detection	In the event of reader failure / malfunction / tempering, it shall be capable of being detected by the server and appropriate alarms shall be generated at workstations /Server.		
7.	A/V Indicators	It shall be capable to provide a unique tone and / or tonal sequence for various status conditions such as attendance marked / denied, access granted / denied, reader power condition etc. and clear visual LED indications (Multi-color) shall be provided for various status conditions.		
8.	Card Holder Memory	Fingerprint Capacity should be 5,000 fingerprints. Template size 10,000.		
9.	Event Buffer Size ( Log Capacity )	>80,000 Nos. with date & time stamp		
10.	Finger Print Sensor Type	<p>1. 500 DPI or better Optical Type Biometric Sensor. Self-contained fingerprint unit should perform enrollment and verification. The system to be Impact resistant, scratch resistant, weather durable and corrosion free.</p> <p>2. In the case of fingerprint of a particular employee is not authenticating properly, system should be able to work with smart card for that employee i.e. The terminal should support the ability to support biometric and non-biometric employees at the same terminal</p> <p>3. Employees, at times, tend to punch more than once in a short span of time and not being sure of the previous punch. In order to eliminate this, system should support a "No Re-Punch" feature which prevents employees from entering several punches in the short span of time</p> <p>4. It should be possible to configure, manage and diagnose multiple geographically dispersed readers from a central desktop application without custom programming</p> <p>5. Should have central administration module software to manage all readers installed remotely</p>		
11.	Clock	Shall have built-in RTC Calendar. Should be able to		

		sync the clock with the server		
12.	Power	Shall have built-in or external power supply required for internal operations. Should be able to work with 230V single phase power supply.		
13.	Battery Backup	SMF Batteries for backup of min. 4-5 hours Should be able to control EM locks also. Lithium battery to maintain data in RAM and supply power for the on-board RTC etc.		
14.	Battery Refresh	The bidder shall compulsorily replace all the batteries after 2.5 years and as and when the batteries get faulty during the entire lease period		
15.	Environmental	Temperature 0-50 degree C; 10% to 95% RH non-condensing		
16.	Template Size	Around 350 bytes		
17.	Verification Time	Less than 1 second		
18.	Enrollment Time	Less than 3 seconds		
19.	FAR / FRR	0.001% FAR; 0.01% FRR in Ideal conditions		
20.	Scan Capture Area	13 mm x 13 mm minimum		
21.	Software / Firmware	<p>1. The solution should be able to download punch information of employees from the readers in real-time. There should be no batch process required. Also, if required, communications with server should be performed at regularly scheduled intervals or preset times, or on an on demand or when available basis.</p> <p>2. The reader should have the capability to run in off-line mode. It should be able to send all events once connectivity is re-established (employees must be able to punch-In/out for shift or break off line).</p> <p>3. Compatible SDK for desktop application and encoding scheme should be provided to BHEL Jhansi.</p> <p>4. Both the reader as well as the software should be supported by a single vendor.</p> <p>Software / Firmware updates should be possible through network / communication port and provided free of cost during lease period.</p>		
22.	Make	Sagem / Bioscrypt / Secugen / Suprema / ESSL/ Matrix/ Bosch		
3.	Certifications	CE, FCC, KCC, ROHS.UL		

## 6.2 Tripod Turnstile Gates

Sl	Feature	Description	Compliance (Yes/ No)	Remark
1	Make	Sivananda/ Reputed manufacturer matching with below specs		
2	Model	Slim Type tripod turnstile		
3	Height	<ul style="list-style-type: none"> <li>• Cabinet: 1020 MM</li> <li>• Rotor Arm height from ground: 860 MM</li> </ul>		
4	Technology	<ul style="list-style-type: none"> <li>• Solenoid locking mechanism</li> <li>• 3 X 120 degree indexing</li> </ul>		
5	Rotation/Type	120 degree stop (Tri-arm)		
6	Walkway/Passage Clearance	Minimum 380+50 MM		
7	Dimension	Cabinet:420X250X1020 MM (LXWXH)		
8	Material of construction	<ol style="list-style-type: none"> <li>1. Body: SS-304 OR Mild Steel powder coated</li> <li>2. ARMS: 304 SS recessed into the cabinet</li> </ol>		
9	Internals	Corrosion, abrasion and rust free alloy of high strength		
10	Power	230 VAC +/- 10% single phase		
11	Frequency	50 Hz.		
12	Duty Cycle	100%		
13	Power Off	Free to rotate in either directions		
14	Operation	Bi-directional		
15	Passage control	Passage to be controlled in one or either direction		
16	Locking	Mechanism to prevent the turnstile rotating in the opposite direction once it has traveled 25 degree past the rest position		
17	Self-centering mechanism	With hydraulic damping to ensure head always rotates quietly and smoothly to the neutral position		
18	Action lock	Positive action lock which prevents two passage at one time		
19	Certifications	CE approved		

### 6.3 Specification of Boom Barrier

SI No	Feature	Description	Compliance (Yes/No)	Remarks
1	Arm Material	1.Aluminium of Length 6 Metre 2.Time for Up/ Down 6 Second 3.Input Control Signal: Dry contact 4. Ingress protection Degree : IP67		
2	Input Interface for	1.Photocell 2.Air Switch 3.Loop detector		
3	Output interface for	1.Lamp		
4	Optional Interface	1.Access control panel 2.Standalone access control 3. Control Button.		
5	Remote control	Yes, up to 25 Meters		
6	Mode	Automatic/Manual Incorporate control panel with 3 push button (STOP/UP/DOWN) to control the motor		
7	Bumping bounce back	Yes		
8	Auto closing time	1-80s		
9	Power Supply	1.SMPS-Input AC 220V/110V, 50Hz/60Hz Motor Power 90W, 220V AC Dimension(mm) 268 X 348 X 1050 Operating temperature 0 <sup>0</sup> C to + 50 <sup>0</sup> C		

### 6.4 Specification of Retractable Flap Barrier

SL No	Feature	Description	Compliance (Yes/No)	Remarks
1	Description	Waist Height Retractable Flap Barrier with Two flap including EM Locks controlled using Biometric / Smart cards, Electronically operated, silent & maintenance free in operation, adjustable timeout feature. Continuous duty cycle. Modular with Single / Multiple lane setups shall support normally open mode operation.		
2	Material	304 Grade Stainless Steel Arm Dia. 35 mm MAT finished Body. Colorless Tempered Safety Glass (Min 10 mm thickness) flaps for Heavy Duty Use, Dual Flap Arms		
3	Passage Width / Flap Width	Passage clearance > 520 mm		

<b>4</b>	Safety	Sensors to detect person in safety zone; Fully retract in case of power failure /Emergency.		
<b>5</b>	Configuration	Configurable in both or one direction in fail-safe or fail-lock in the event of power fail or during emergency		
<b>6</b>	Interface	Suitable Control logic with one input for opening / locking the mechanism in each Direction; two relays indicating availability of use in either direction; two output to count passage in either direction		
<b>7</b>	Card Reader	Provision for embedded (Flush) mounting of two readers one on each side for attendance and access control		
<b>8</b>	Compatibility	Should not allow a person to pass from opposite direction. For example, if a person shows card from the entry side and another person from the opposite side tries to exit than the flaps should immediately close, thus blocking the passage. Anti-Tail Gating Feature Anti-Crash Sensors. Indicator Lights of different colors for various states Same barrier should be able to work from both directions i.e. IN and OUT		
<b>9</b>	Opening/ Closing Time	Less than one second		
<b>10</b>	Standards	CE or UL Approved, EN 61010-1, IEC 1010-1		
<b>11</b>	Interface	Opto-Isolated Inputs & Outputs for Interfacing External Devices		
<b>12</b>	Flow Rate	Should be able to allow minimum 25-30 passage / minute.		
<b>13</b>	Input Protection Degree	IP45		
<b>14</b>	Power	SMPS input: AC 220 V /110 V, 50HZ/60HZ SMPS Output: DC +24V, 5A, 12 V, 3A. Power Rate : Idle 30W, When working it should not more than 80 W.		
<b>15</b>	Battery Mode	Should be provided with Optional battery backup. - In Emergency mode flap automatically open for entrance. - In power supply mode flaps remain normal operation.		

## 6.5 Finger Print, Signature Registration Device, Web Camera and Data Capturing device

### Specifications & Performance Requirement

SL	Feature	Description	Compliance (Yes/No)	Remark
1	Description	<ul style="list-style-type: none"> <li>• Enrolment station shall be used for various administrative function like creating /deleting system operators and managing their profiles / passwords, hardware management, smart card programming / preparation, fingerprint enrolment, card/user modification, system configurations, photo badging &amp; smart card printing, system archiving etc.</li> <li>• Each enrolment station shall include a fingerprint enrolment kit, smart card encoder/programmer, Web camera with in-built flash(having Good Resolution and give Quality Picture) &amp; photo card preparation module, relevant software. System shall share a common database as of Electronic Attendance System. The user interface shall be similar in look and feel to other modules of Electronic Attendance System.</li> <li>• Photo card preparation module shall include a complete design and layout tool. The design and layout tool shall make use of WYSIWYG editor including drag and drop placement.</li> <li>• Software adjustable controls like hue, saturation, brightness, contrast, offset and gain shall be controllable through the application.</li> <li>• Module should be capable of using industry standard direct to PVC dye diffusion thermal transfer printer for production of ID cards.</li> <li>• It should be possible to import previously captured images</li> <li>• Four finger print per employee shall be registered and stored in system / card.</li> </ul>		
2	Encoder / Programmer	Card Compatibility: RFID Mifare s <ul style="list-style-type: none"> <li>• Encoding Time ó Less than 3 seconds</li> <li>• Interface - USB</li> </ul>		
3	Fingerprint Sensor Type	Biometric sensor shall be optical type of Sagem / Bioscrypt / Secugen / Suprema / ESSL/ Matrix/ Bosch make.		
4	Scan Capture Area	13 mm x 13 mm minimum		
5	Frequency	13.56 MHz		
6	Certifications	CE or UL or EN		
7	Card Preview and Printing	Operator should be able to print the card on the printer after image has been accessed and layout selected. It should have print preview option before printing.		
8	Base Station	Will be Provided by BHEL		

9	Signature Pad	Digital Signature Pad & Pen along with compatible software for digitizing employee signature, USB Interface		
10	Unicode Compatibility	System should be Unicode compatible so that entries can be made in Hindi also		
11	Other	Photography, finger print enrolment, card preparation and lanyard attachment, Card Holder with Clip shall be in the scope of successful bidder.		

## 6.6 Specification of Fixed IP Camera Along with adapter for power supply

Sno	Feature	Description	Compliance (Yes/No)	Remarks
1	Type of Product	IR Bullet Outdoor Camera with inbuilt Audio		
2	Image Sensor	1/3 <sup>rd</sup> CCD/CMOS		
3	Signal System	PAL/NTSC		
4	Resolution	Min 1.3 MP		
5	Lens Type	Fixed Lens Built-In		
6	Focal Length of Lens	3.6mm		
7	Min. Illumination	0.01Lux/F2.0 (Color), 0Lux/F2.0(IR on)		
8	IR Distance	Min 20 Mtrs		
9	Pixels (H X V)	1280x960		
10	S/N Ratio	50 dB minimum		
11	Electronic Shutter	Auto/Manual, 1/3~1/100000s		
12	Operating Temperature	-30°C~+60°C, Less than 95% RH		
13	Day/Night	True Day/Night Mechanical Filter		
14	Video Output	1.0 Vp-p, 75 Ohms		
15	Body	Casted/Machined Aluminium IP 67 rated weather proofing standard		
16	Standard	FCC/CE/ AL/UL/ EN/ RoHS/ ISO Certified/ Approved		
17	Wide Dynamic Range	Digital WDR		
18	Video Streaming	Camera should output a master and a slave stream that are individually configurable. Support Triple Streaming		
19	Network	IPv4/IPv6, HTTP, HTTPS, SSL, 10/100/1000 Mbps		
20	Open Protocol	ON VIF Profile S or Higher		
21	Video Content Inbuilt Edge Analytic	Motion detection, Tripwire, Intrusion, Audio detect, Abandoned/Missing, Scene Change, Face detection, Crossing line, Object removal		
22	Noise Reduction	3D- DNR		
23	Camera Tampering	Camera should provide real-time tampering protection by means of alert generated at the software.		
24	Power Supply	The outdoor network bullet camera shall support industry standard Power over Ethernet (PoE) IEEE 802.3af to supply power to the camera over the network and DC12 V to supply local power in case of longer distance where PoE is not possible.		
25	Power Consumption	Not to exceed 6 W		
26	Smart Phone	It should support remote monitoring over iPhone, iPad, Android and Windows Phone including desktop/PC		
27	Network Compatibility	PSIA, CGI		
28	Recording	Audio and Video		

## 6.7 Specification of Dome IP Camera Along with adopter for power supply

Sl NO	Feature	Description	Compliance (Yes/No)	Remarks
1	Type of Product	Dome Camera with , inbuilt Audio Weatherproof IP 66		
2	Image Sensor	1/2.7 $\mu$ 2Megapixel progressive scan CMOS		
3	Resolution	Max. 1920x1080		
4	Lens Type	2.8x motorized varifocal		
5	Focal Length of Lens	2.7mm~12mm VF motorized		
6	Min. Illumination	0.01Lux/F1.4(Color); 0Lux/F1.4(IR on)		
7	Operating Temperature	'-30°C~+60°C, Less than 95% RH		
8	Day/Night	Yes (ICR)		
	IR Distance	Min 40 meter		
	Resolution	1920 x 1080		
9	Standard	FCC/ CE/ AL/UL/ EN / RoHS, ISO Certified / Approved		
10	Video Output	1.0 Vp-p/75		
11	Wide Dynamic Range	The Camera Should give a WDR Range of minimum 120 dB Real WDR( Must be hardware driven)		
12	Video Streaming	Camera should output a master and a slave stream that are individually configurable. Support Triple Streaming		
13	Net Work	IPv4/IPv6, HTTP, HTTPS, SSL, 10/100/1000 Mbps		
14	Open Protocol	ON VIF Profile S or Higher		
15	Video Content Inbuilt Edge Analytic	Motion detection, Tripwire, Intrusion, Audio detect, Abandoned/Missing, Scene Change, Face detection, Crossing line, Object removal		
16	Noise Reduction	3D- DNR		
17	Camera Tampering	Camera should provide real-time tampering protection by means of alert generated at the software.		
18	Corridor Mode	Should Support corridor format that allows cameras to maximize video surveillance in narrow vertical situations		
19	Power Supply and Power Consumption	The outdoor network camera shall support industry standard Power over Ethernet (PoE) IEEE 802.3af to supply power to the camera over the network and DC12 V to supply local power in case of longer distance where PoE is not possible. Power Consumption should be less than 12 W.		
20	Network Compatibility	PSIA, CGI		
21	Ingress Protection and Vandal Resistance	IP 67, and camera should be vandal resistant as per IK 10 rating		
22	Alarm in/ Out	1/1 channel in/ out		
23	Audio In/Out	1/1 so as to equip the camera with 2 way audio		
24	Recording	Audio and Video		

## 6.8 Specification of IP Dome PTZ Camera

Minimum Parameters shall be as under:

Sl	Feature	Description	Compliance (Yes/No)	Remarks
1	Image Device	Interline transfer 1/2.8öor better format CCD sensor/ CMOS		
2	Optical Zoom	Min 30X		
3	Preset Tilt Speed	Tilt: 200° /s)		
4	Preset Pan Speed	Pan: 240° /s;		
5	Compression	H.264/ H264H/ MJPEG		
6	Operating temp	-30°C ~ 60°C / Less than 90% RH		
7	Ethernet	10/100 Base T(RJ-45)		
8	Network Protocol	IPv4/IPv6, HTTP, HTTPS, SSL,		
9	Video transfer	TCP , UDP( Multicast , Unicast)		
10	Video resolution	1920 X 1080		
11	Performance	1080P/ D1 (1 ~ 25/30fps), 720P(1~50/60fps)		
12	Connection users	H.264/MJPEG : 20 users		
13	Alarm control	On alarm, image will be sent by ftp, smtp		
14	Access level	Guest, admin, operator		
15	Security	IP filtering		
16	Illumination	Color: 0.05Lux@F1.6; B/W: 0.005Lux@F1.6		
17	Tilt Travel	Tilt: -15° ~ 90°, auto flip 180°		
18	Back Light compensation	BLC / HLC / DWDR (Digital WDR)		
19	White balance	Auto		
20	Electronic shutter	Auto		
21	Shutter speed	1/1 ~ 1/30,000s		
22	Audio	With Inbuilt Audio 2-way		
23	Motion	Pan/Tilt		
24	Power supply	As per OEM's design, however generally AC 230 V @ 50Hz/12V or 24 V AC Rectifier and SMPS if DC supply. Power consumption should not exceed 12 W and 26 W (IR on, Heater On)		
25	Preset	Min 32		
26	Video Streaming	Triple Steaming		
27	Day/ night	Yes		
28	Standard	FCC/ CE/ AL/UL/ EN/ RoHS/ ISO Certified		
29	Video Out Put	BNC(1.0Vp-p 75 ), PAL / NTSC		
30	Noise Reduction	3D - DNR		
31	Video Content Inbuilt Edge Analysis	Motion detection, Tripwire, Intrusion, Audio detect, Abandoned/Missing, Scene Change, Face detection, Crossing line, Object removal		
32	Ingress Protection	IP 66 rated weather Proofing Standard		
33	Open Protocol	ONVIF Profile S or higher		
34	Recording	Audio and Video		

## 6.9 Card Printer & Cartridge

Sl No	Particulars	Feature	Compliance (Yes/ No)	Remarks
1	Card Printer	RFID contact less Smart card Printer - Double Sided Printer : Colour, >150CPH - USB & Ethernet Connectivity - Laminator (Single Sided & Dual Sided) - Lockable enclosure/ Card Feeder		
2	Print Cartridges	Sufficient number of cartridges to prepare Smart Cards as mentioned in the tender scope		
3	Standard	CE/AL/ UL/ ISO Certified		

## 6.10 Network Video Recorder

NVR having Channel capacity for the minimum 64 cameras required in the solutions with 90 days recording storage capacity. Please mention capacity of HARD DISK also in TB.

SL	Particulars	Compliance (Yes/no)	Remark
1	Must support minimum 64 Cameras ( 16X4= 64 Channel)		
2	Hard Disk Capacity (128 TB) 8 SATA III PORTS		
3	Max 384Mbps incoming bandwidth		
4	up to 12Mp resolution preview & playback		
5	1 VGA+2 HDMI		
6	Support 16 hot-swap HDDs		
7	Support RAID 0/1/5/6/10/50/60		
8	Support N+M hot standby		
9	Support ISCSI & Mini SAS to expand storage space		
10	Support Multi-brand network cameras :DVTEL, CP plus and Camera proposed in your offer against this tender		
11	ONVIF Version 2.4 conformance		
<del>12</del>	<del>Redundant power supply module adopted</del>		
<del>13</del>	<del>Front LCD display</del>		
14	Video Transfer ó Unicast, Multicast		
15	Concurrent Viewing ( Minimum 10 Users )		
16	System Administrator Privilege- Should be able to configure the system for various user rights		
17	Sound Card- Inbuilt		
18	All the workstation connected on the network should be able to access the cameras through IE using valid login id and password.		

## 6.11 Database Server

### Specifications & Performance Requirement

Sl	Feature	Description	Compliance ( Yes /No )	Remarks
	Mounting	Rack		
2	Height	Max 2U		
3	Processor	Intel Xeon Quad Core 5630, 2.53GHz, 5.86GT/sec QPI with 2 nos. processors populated		
4	Chipset	Intel 5500 family chipset		
5	CPU Cache	12MB L3 Cache		
6	RAM	24GB DDR3 1066 MHz expandable to 48GB.		
7	Extension Slots	4 or more PCI-X /PCI- Express Slits ( with at least 2 PCI-E x8 slot for SAN connectivity)		
8	HDD	6 x 146 GB or higher SFF hot Pluggable SAS 10k rpm		
9	DVDROM	8x or higher DVD-CDRW Combo Drive		
10	Raid Controller	2 Nos. of 3G SAS RAID Controller, each with 256 MB battery backed cache		
11	LAN Card	2 Nos. of separate 10/100/1000 Ethernet Cards each with 2 ports ( with at least 1 card on board )		
12	Power Supply	Should come with Hot Pluggable & Redundant Power Supplies.		
13	Fans	Hot pluggable redundant fans Management Software		
14	Management software	Management software having following features provided with server		
		1) OS independent remote management capabilities.		
		2) Provide proactive notification of actual or impending component failure alerts.		
		3) Inventory management (H/W & S/W)		
		4) Remote software deployment		
		5) Remote patch deployment		
15	OS & Database	1) MS Windows 2008 R2 Enterprise Edition Server or Latest.		
		2) Enterprise Database License matching above		
16	Certifications	For OEM: IOS 9001 (Latest version); ERTL/FCC-EMC Class A or Class B; Latest version of IEC-60950-1/IS13252 / UL- 60950; ACPI (Latest Version) compliant; RoHS compliant.		

## 6.12 Access and Attendance Software

Specifications & Performance Requirement			
SI	Description	Compliance (Yes /No)	Remarks
1	The proposed solution should be completely integrated time, leave and scheduling system. Solution should be enterprise-wide and should be completely web based.		
	The key components include:		
	- Time Collection devices		
	- Time Management linked to time devices providing real-time visibility into workforce <ul style="list-style-type: none"> <li>• Leave and Absence Management</li> <li>• Scheduling, Shift Management</li> <li>• Reporting and Analytics</li> <li>• Overtime Calculation</li> <li>• Shift Allowances</li> <li>• Holiday Management</li> <li>• Compensatory Off</li> </ul>		
2	Each employee should be able to check following details after proper authentication: <ul style="list-style-type: none"> <li>• Checking Roster</li> <li>• Checking Punches</li> <li>• Check Attendance Details</li> <li>• Check Leave Balance</li> <li>• Apply for Leave</li> </ul>		
3	Proposed solution should have the capability to run reports like on premise and exceptions in real time. In order for the reports to run in real-time the readers should be able to push punches into the software in real time		
4	The Solution should have multi-tier web based architecture and centralized architecture. There should be no installation on any other PCs to run the system.		
5	Different stakeholders in the organization would want to run different set of reports and analysis. Hence the system should have the ability to define various roles like Manager, Supervisor, IR, HR, Management etc. so that exception and attendance reports can directly be run by concerned stakeholders anytime on their PC for the employees they manage. For e.g. Department heads should be able to run reports on their desktops for their employees. System should have the capability of Adhoc reporting requirement.		
6	The software should have the capability to record leaves taken by employees who should then update the schedules and timesheet of employees.		
7	Proposed software have complete audit trail capabilities of changes made to employee's timecard including information on who made the changes and when.		
8	<b>Unified view of the employees:</b> The system should provide a unified view of the employees to HR and Managers. The unified view should contain the time sheet, the roster/schedule and leaves taken by the employees all in one screen.		
9	The proposed time and attendance system will have to integrate with the existing ERP and payroll systems so system should have a certified adapter with ERPs like SAP. Also the proposed system should have a native integration tool to build interfaces to other legacy systems.		

10	Proposed software should have a flexible and easy to use (excel like) scheduling engine that should be able to take care of all scheduling requirements of BHEL and have the ability to build unlimited shift schedules and patterns. Some of the important capabilities required of the solution are mentioned below:		
11	The scheduling tool in a single glance should provide information to the managers. like: <ul style="list-style-type: none"> <li>• Number of employees rostered</li> <li>• Employees on leave for the duration being viewed</li> </ul>		
12	In order to make it easier for managers the system should provide the capability to assign mass schedules to a group of employees in one go. The schedule once created and saved should automatically be available in the timecard of the employee.		
13	Shift Management <ul style="list-style-type: none"> <li>• Ability to add new shifts (No upper limit)</li> <li>• Ability to deactivate existing shifts</li> <li>• Ability to edit shift information</li> <li>• Ability to change shifts</li> <li>• Ability to allocate shift for future</li> </ul>		
14	Provision to create unlimited shift patterns like AB, ABC, BAC, CAB etc.		
15	Provide the ability to schedule shifts that cross multiple days (e.g. start at 6:00 p.m. on day one and complete at 2:00 a.m. on day two).		
16	Provision to create shift patterns of varying durations like weekly, monthly, fortnightly, daily or any other Adhoc duration		
17	Allow schedule shift patterns to be automatically repeated, or rolled forward to future weeks		
18	The solution should Support for remote and non-relational data sources		
19	The solution should support key extensions such as HTML, Excel, PDF, Word, Image, XML, CSV rendering extensions-mail and file share delivery extensions		
20	It should support report Scheduling and delivery of scheduled reports either through e-mail or file system share		
21	It should support Report caching, Report history for better performance		
22	It should support ad-hoc reporting		
23	It should support Visualization tools such as maps, gauges, and charts, indicators.		
24	The system should be accessible to all regular employees based on their rights over the web by entering a user id and password.		
25	Department/Location based logins should be available		
26	Ability to Create/Edit users in the system.		
27	Provision for giving selective user rights		
28	Logout functionalities		
29	Transmissions from the web-based application are kept secure through SSL		
30	It should be possible to use same reader for both IN as well as OUT in multi-shift environment on 24x7 basis i.e. in same workplace there may be different shifts going on and logic to be built based on shift timings of a particular employee /group of employees		
31	Fingerprints enrolment shall be an integral part of system. Each cardholder can have up to 2 stored finger templates		

32	Each cardholder can have a Personal Identity Number (PIN) to be used on readers with keypad.		
33	The software should check the status of the readers / controllers on regular intervals. (Online / offline)		
34	Software along with customization code / objects / libraries shall be handed over to BHEL. BHEL will be free to modify and use software as it may deem suitable for its internal use.		
35	Software should be able to capture employee swipe transactions both for in-swipe and out-swipe and transfer the data to server for further processing.		
36	The Software should be web based so that the administrator / operator / user can access the software console from any location within BHEL Network.		
37	The software should have the capability to integrate with the existing HR, Payroll and SAP-HR Systems		
38	The software shall be modular in nature and easily expandable without any Hardware/software limitations.		
39	The software shall support many Clients / Workstations with all functionality available from client / workstation on the network		
40	The software shall utilize a single seamless integrated relational database for all Functionality.		
41	The data archival and back up shall be part of the system architecture and process.		
42	The software shall support Microsoft Windows XP/ 2003/ 2008/Win 7 operating Systems.		
43	The software shall be expandable to support an unlimited number of field devices.		
44	The software should be having the below mentioned features integrated and seamlessly connected to each other: 1) Access Control System from Day one 2) Time & Attendance System from day one 3) Option of Integration with CCTV and fire alarm 4) Option of Visitor Management System Module 5) Alarm Monitoring		
45	The software shall support a fault tolerant server and redundant database architecture. In the event of a server failure, the system shall automatically switch over to a backup server from the primary server without impeding the operation of the software.		
46	The software shall support an import utility that provides importing of cardholder information into the database in any format compatible with ODBC (Excel, MDB, etc.)		
47	The software should be able to do Bulk Employee Addition		
48	The software should store Photographs for each employee.		
49	The software shall allow data to be imported or exported in real time or as a batch operation.		
50	The software shall use oracle 10g or higher version as its database.		

## 6.13 Specification of Cables / Misc. Items

### 6.13.1 Supply and Laying of UTP cable with suitable conduit pipe, power cable if required for connecting the card reader with the network

Specifications & Performance Requirement				
Sl	Feature	Description	Compliance (Yes /No)	Remarks
1	UTP Cable-Make	AMP/ Systemax/ Avaya/ Molex/ Panduit		
2	Cat 6	Should meet minimum Category 6 requirements		
3	Type of Conductors	4 Pair 23 AWG Conductors		
4	Frequency	Characterized to 250 MHz		
5	Standards	TIA/EIA 568B, ISO Class E 11801-2002		
6	Gigabit Requirements	Should meet or exceed Gigabit Ethernet Requirements at 100 meters		
7	Connectors	Same make as of Cable		
8	PVC Conduit-Make	AKG or Equivalent- 1ø PVC Pipe, Medium Strength. ISI Mark		
9	Power Cable-Make	Anchor / Finolex / Havells / Polycab / RPG-3 Core Multistrand Flexible Copper Power Cable of size 1.5 Sq. mm Suitable for Connecting readers / controllers / barriers.		

## 6.14 Specification of on Line UPS

S	Features	Particulars		
1	Types of UPS	True On Line		
2	Capacity	1000 VA		
3	Input	160 V to 300 V AC, 50 Hz, 1 phase.		

4	Out put	230 V AC +/- 1% 50 Hz		
5	Battery Back-up	Minimum 2 Hours		
6	Indicators	Multifunction LED display/ LCD Display		
7	Audible Noise	<50 dB at 1 Meter		
8	Protection	Electronics Protection for output over load, short circuit, over temperature, Battery Low , over charge IEEE527 EN 50091, EN 50091-2, EN 61000-4 as applicable.		

## 6.15 Specification of Smart Cards

<b>Specifications &amp; Performance Requirement</b>				
Sl	Feature	Description	Compliance (Yes /No)	Remarks
1	<b>Card Specification</b>	Card shall have minimum 4 KB memory and shall employ Mifare or RFID platform for storing and accessing data items.		
		Card should be capable of completing any write operation even if the card has been removed from the RF field during the operation.		
		Card shall be laminated and colour coded as per the type of user. Overall card design shall be finalized with successful bidder.		
		Photography, finger print enrolment, card preparation and lanyard attachment shall be in the scope of successful bidder		
		Minimum Four fingerprint patterns shall be enrolled and stored in the card / system		
2	Encryption	Shall support DES, TDES, 3KTDES & AES cryptography. Data inside the card shall be secured with minimum 64 bit encryption so that data cannot be		

		modified or accessed until the card and the reader have completed mutual authentication.		
3	Material	Card shall be durable, made of PVC and meet ISO 7810 standard for length, width, thickness and construction. Card shall be resistant to alcohol, Fuel, sweat etc. Card shall be capable of accessing a slot punch on one end, allowing it to be hung from a strap or clamp in vertical orientation. It should be capable of direct two sided dye-sublimation or thermal transfer printing so that cardholder information / images shall be printed directly onto card.		
4	Standard Compliance	Conformance to 14443A.		
5	Frequency	Contactless smart chip operating at 13.56 MHz		
6	Others	Smart card shall be supplied with 1 meter lanyard (with BHEL logo preprinted at defined distance intervals) and a solid / rigid plastic card holder with slots for clip or lanyard		
7	Warranty	Card shall be warranted against defect in material and workmanship for lifetime.		
8	Environmental	Temperature -15 to 55 degree C; 5% to 95% RH non-condensing		
9	Additional Cards	Additional cards along with preparation, if any will be on the same rates		

**7 Checklist of Enclosures**

<b>Sr. No.</b>	<b>Qualifying Requirements</b>	<b>Format attached as annexure</b>	<b>Whether Documents attached or not</b>
1.	Signed copy of tender		Yes / No
2.	Quoted for all items	Check	Yes / No
3.	Acceptance of Technical Terms and Conditions		Yes / No
4.	Acceptance of Commercial Terms and Conditions	Clause-4 of Tender	Yes / No
5.	Technical specification of the offered solution to be filled in the Check-list format issued as Requirements in the tender document	Clause-6 of Tender	Yes / No
6.	Documentary proof for having registered office in India.		Yes/ No
7.	Self-declaration regarding not banned/ blacklisted/ guilty of fraud by any court-of-law.		Yes/ No
8.	Self-declaration regarding not banned/ blacklisted/ guilty of fraud by any unit/division of BHEL.		Yes/ No
9.	Should have PAN/TAN Number. Copy of the PAN/TAN to be submitted.		Yes/ No
10.	Copy of PAN based Service Tax Registration No.		Yes/ No
11.	All Documents in line with Checklist of Formats	Clause-8 of Tender	Yes/No

**8 Check List of Formats (To be attached with techno commercial Bid Duly Filled by the Vendor).**

SI No	Annexure to be attached	Format attached as annexure	Whether attached (Yes/No)
1.	Performa for Organizations details	Annexure-A	Yes/ No
2.	Authorization Letter from OEM for Card Readers	Annexure-B	Yes/ No
3.	No deviation Certificate	Annexure-C	Yes/No
4.	Annual Turnover Chart	Annexure-D	Yes/ No
5.	Details of Major Project Executed.	Annexure-E	Yes/ No
6.	Third Party Non-Disclosure Agreement	Annexure-F	Yes/ No
7.	Disclosure/ Declaration for Blood Relation with BHEL (Owner) Employee Annexure -G	Annexure-G	Yes/ No
8.	Unpriced Price Bid	Annexure-H	Yes/ No

Note: All the above check list documents needs to be submitted on the Letter Head of the bidder.

**ANNEXURE - A**

**Tender Enquiry No: HRM/TE/5/03, dated: \_\_\_\_\_**

PERFORMA FOR ORGANIZATION DETAILS:

**(A) Essential Documents Required**

1. Name of the firm: \_\_\_\_\_

2. Name of the Proprietor/Partners: \_\_\_\_\_

3. Address, Contact Numbers and email: \_\_\_\_\_

5. PAN/TAN Number: \_\_\_\_\_

6. Service Tax Number (PAN Based): \_\_\_\_\_

7. VAT/TIN/CST Number: \_\_\_\_\_

Copy of Certificate Enclosed / Not Enclosed

(To be submitted only in case where material transaction is involved)

8. Audited financial statement/CA Certificate as per tender: Enclosed / Not Enclosed

9. Experience Certificate: Enclosed / Not Enclosed (Must indicate Phone No and address of customers)

(Along with necessary enclosures as per tender to be submitted)

9 Acceptance of Reverse Auction (RA): Accepted/Not accepted.

**Signature with Name & Office Seal**

**ANNEXURE - B**

**FORMAT FOR “LETTER OF AUTHORITY”**  
*(To be obtained from OEM of individual new items)*

**Tender Enquiry No: HRM/TE/5/03, dated: \_\_\_\_\_**

To,

\_\_\_\_\_

Subject: **Letter of Authority**

Dear Sir,

We hereby authorize \_\_\_\_\_ who will fulfill the requirements of the tender enquiry ref. no. \_\_\_\_\_, dated \_\_\_\_\_ to quote/ negotiate and service the equipment as required in the above tender enquiry. This authorization is valid only for the following equipment for which we are the OEM:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

The authorized agency would ensure reliable service during complete lease period. In case of any default alternative arrangement would be done by us on the same terms and conditions as negotiated and finalized in this tender enquiry. (Authorized Signatory)

For \_\_\_\_\_

Place:

Date:

**Note: This ‘Letter of Authority’ should be issued on the letterhead of OEM and enclosed in**

**ANNEXURE C**

**FORMAT FOR “NO DEVIATION CERTIFICATE”**

**Tender Enquiry No: HRM/TE/5/03, dated: \_\_\_\_\_**

**NO DEVIATION CERTIFICATE**

This is to certify that our offer is exactly in line with your tender enquiry no.

....., **dated \_\_\_\_\_**. This is to expressly certify that our offer contains **no deviation** either Technical or Commercial in either direct or indirect form.

**Signed By:**

**Name:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**Organization:** \_\_\_\_\_

**Date & Place:** \_\_\_\_\_

**Phone/Fax/Mobile/Email:** \_\_\_\_\_

**Stamp & Seal:** \_\_\_\_\_

Place:

Date:

**ANNEXURE D****ANNUAL TURNOVER OF BIDDER****Tender Enquiry No: HRM/TE/5/03, dated: \_\_\_\_\_**

<b>S.No.</b>	<b>Financial Year</b>	<b>Turnover (In Rs. Lakhs )</b>
1	2012-13	
2	2013-14	
3	2014-15	

Place:

Signature with seal

Date:

**ANNEXURE E****EXECUTED MAJOR ORDER DETAILS  
(As per Qualification Criteria)****Tender Enquiry No: HRM/TE/5/03, dated: \_\_\_\_\_**

<b>S.No.</b>	<b>Organisation Name/ Contact Person details and Phone No.</b>	<b>Type of equipment supplied</b>	<b>Details of project</b>	<b>Value (Rs Lakhs)</b>
1				
2				
3				

Signature with seal

Date:

**Annexure-F**

**THIRD PARTY NON-DISCLOSURE AGREEMENT**

I, \_\_\_\_\_, on behalf of the \_\_\_\_\_ (Name of Company), acknowledge that the information received or generated, directly or indirectly, while working with BHEL on contract is confidential and that the nature of the business of the BHEL is such that the following conditions are reasonable, and therefore:

I, or any other personnel employed or engaged by our company agree as follows to maintain confidentiality & integrity of the information handled, generated & agree not to disclose, directly or indirectly, any information related to the BHEL. Without restricting the generality of the foregoing, it is agreed that we will not disclose such information consisting but not necessarily limited to:

- 1) Technical information: Methods, drawings, processes, formulae, compositions, systems, techniques, inventions, computer programs/data/configuration and research projects.
- 2) Business information: Customer lists, project schedules, pricing data, estimates, financial or marketing data

We will also keep the availability of the equipmentø and supplied as per the contractual agreement in PO. On conclusion of contract, I, or any other personnel employed or engaged by our company shall return to BHEL all documents and property of BHEL, including but not necessarily limited to: drawings, blueprints, reports, manuals, computer programs/data/configuration, and all other materials and all copies thereof relating in any way to BHEL's business, or in any way obtained by me during the course of contract. I further agree that I, or any others employed or engaged by our company shall not retain copies, notes or abstracts of the foregoing.

This obligation of confidentiality shall continue after the conclusion of the contract also.

I acknowledge that the aforesaid restrictions are necessary and fundamental to the business of the BHEL, and are reasonable given the nature of the business carried on by the BHEL. I agree that this agreement shall be governed by and construed in accordance with the laws of country. I understand that any violation of this agreement may invite action from BHEL.

I enter into this agreement totally voluntarily, with full knowledge of its meaning, and without duress.

Dated at \_\_\_\_\_, this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Name :  
Company :  
Signature :  
  
Seal :

**Annexure: G**

**Declaration Form**  
**“Tender Supply of Software and Integration with existing Attendance, access control and surveillance system“**

SL No	Particulars	Yes / NO
1	<p>If the tenderer has relations whether by blood or otherwise with any of employees of BHEL (Owner), the tenderer must disclose the relation at the time of submission of Tender, failing which, BHEL shall Reserves the right to reject the Tender or rescind the Contract. (If Yes, give the following details)</p> <p>a) Name and Designation of the Employee  b) Place of Posting  c) Relation with the Employee</p>	
2	P.F. Registration No of the Contractor (along with Documentary proof thereof)	
3	PAN No of the Contractor (along with Documentary Proof thereof)	
4	Service Tax No. of the Contractor (along with Documentary Proof thereof) (Signature of the tenderer with SEAL)	

Signature with Seal

Place: \_\_\_\_\_

Date: \_\_\_\_\_

## Price Bid Format (Annexure H) for Biometrics Access Control, On-Line Attendance CCTV Surveillance System

Format for Submitting the Price details of Supply and Installation of Bio-metric Attendance and Access Control System with CCTV Surveillance at BHEL Jhansi for a period of 5 Year Finance Lease Option (Quarterly Rental)

Sl.	Item Description	Um	Qty (A)	Old Qty usable (B)	Unit Quarterly Maintenance Charges (C)	Total Quarterly Maintenance Charges (D) = (B) X (C)	New Qty (E)	Unit Quarterly Lease Rent (H)	Quarterly Lease Rent (I)	Tax Amt	Rate of Tax	Type of Tax
a:	IF Upgradation of existing item is possible then Mention the quantity in column no B,C & D otherwise quote as new item in column E to I (We have 28 No. BCR & 28 No. Card Reader and 8 Nos Biometrics Fingerprint Reader which has to be upgraded, for balance supply supplier have to quote for new Items). Total Qty of New Item & Upgradation of existing item should be equal to Qty (A).											
1	Supply of new BCR/ Upgradation with overhauling of Existing BCR and installation, testing and commissioning, Biometric Cum Smartcard Reader as per the Enclosed Specification	No.	110									
	Sum (a)											
b.	IF Overhauling is possible then only Mention the quantity in column no B,C & D otherwise quote as new item in column F,G,I & J											
2	New Supply/ Overhauling of existing Locks installation, testing and commissioning of 600 Pounds Electromagnetic Door Locks as per the Enclosed Specification	No.	4									
3	New Supply/ Overhauling of existing Tripod Turnstiles, Testing and commissioning of Tripod Turnstile Gates after Overhauling/Repairing	No.	20									
4	New Supply/ Overhauling and Installation and Commissioning of Boom Barrier 6 M	No.	1									
5	New Supply/ Overhauling of existing Flap Barrier Installation and commissioning of Retractable Flap Barriers. Passage Width Min. 520 mm	No.	2									
6	Overhauling of existing DVTEM make Dome IP Camera alongwith supply of Adopter, Aux Connecting cables and installation & testing and commissioning	No.	8									

7	Overhauling of existing DVTEL and CP Plus make PTZ IP Camera along with supply of Adopter, Aux Connecting cables and installation & testing and commissioning	No.	9									
8	Overhauling of existing DVTEL Make Fixed IP Camera along with supply of Adopter, Aux Connecting cables and installation & testing and commissioning	No.	6									
9	New Supply/ Overhauling installation, testing and commissioning, 1 KVA UPS with 2 hours Battery backup Supplier has to replace the battery on every 2.5 Year and maintain	No.	15									
Sum (b)												
c:	New Items to Quote as per the Specification											
10	Supply, Installation of Additional LED Signal Lamp for Red and Green along with required relay with proper arrangement to access granted/denied Or any better option available.	No.	80									
11	Supply, installation, testing and commissioning of Finger Print Scanner, Signature Pad & Registration device , WEB Camera and Data Capturing device	ST	2									
12	Supply, installation, testing and commissioning of Card Printer having capacity of both side printing at once.	No.	1									
13	Supply, installation, testing and commissioning, <b>Dome IP Camera</b> as per specification enclosed	No.	15									
14	Supply, installation, testing and commissioning, <b>PTZ IP Camera</b> , as per specification enclosed	No.	3									
15	Supply, installation, testing and commissioning, <b>Fixed IP, out Door Camera</b> Detail as per specification enclosed.	No.	15									

16	Supply, installation, testing and commissioning, NVR / Server ( Hardware and Software ) for video recording to retain 90 days records as per specification of 64 Cameras.	No.	1									
17	Supply, installation, testing and commissioning, Rack type Server 16GB DDR, 4 RAM, 4 TB Hard Disk for Biometrics Attendance System as per specification.	No.	1									
18	Oracle Standard Edition software 1 User	No.	1									
19	Supply, installation, testing and commissioning, SOFTWARE for attendance and access control system HAVING MODULES OF Access Control, Attendance System, ESS, Contract Worker Management and Visitors Management. : Software should be oracle based having proper license and should be synced with the sap payroll / legacy payroll.	No.	1									
20	Additional Required cable for power supply to BCR & Camera along with required fittings, conduit pipes & accessories.	Mr	1000									
21	Supply and Laying of UTP cable along with suitable conduit pipe if required for connecting the card reader with the network along with required fittings	Mr	1000									
Sum (c)												
Total AMC/ Lease (a+b+c) for One Quarter												
A:	Total AMC/ Lease (a+b+c) for 5 Years (20 Quarter )											
22	Supply of RFID Cards, 4K, Capturing of Employees / Worker Data and Card Printing Card Printing Along with Card Holder and Lanyard duly printed BHEL Logo. All required Consumables, Ribbon etc. shall be in supplier scope for 5 Years	No./ Year	7000									
									ACTUAL QUANTITY FOR 1ST YEAR MAY BE APROX 3500. AND TOTAL QTY FOR 5 YEAR CONSIDERED AS 7000 FOR THE PURPOSE OF CALCULATION. HOWEVER QUANTITY MAY BE VARY AND PAYMENT SHALL BE MADE ON ACTUAL BASIS.			

<b>B</b>	Sum (d)											
<b>C</b>	<b>GRAND TOTAL : A+B</b>											
<b>D</b>	Applicable Tax : A+B											
<b>E</b>	<b>GRAND TOTAL Inclusive Taxes</b>											

<b>1</b>	The sum of quantity quoted in column No. B and E should be equal to the quantity required at column No. A
<b>2</b>	The Lease charges for the New item and Maintenance charges for old usable items are to be quoted for 20 quarters.
<b>3</b>	Lease Tax and Service Tax on maintenance or any other services will be paid extra. Vendor will specify clearly mention lease tax and service tax payable on various heads.
<b>4</b>	Quantity mentioned at SL NO. 20,21 & 22 is tentative. However payment shall be made on actual basis along with the quarterly payment.
<b>5</b>	Rates of items for the outright purchase will be required for financial purposes before awarding of the contract to the L1 bidder.