



भारत हेवी इलेक्ट्रिकल्स लिमिटेड, भोपाल

**BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL**

**Bid For the Supply, Installation & Maintenance**  
**of**  
**Smart Card based Time & Attendance Recording System**  
**on**  
**Lease Basis for 5 years**

**Tender Number: BPL/WE&CS/EMX/09-10/012/T**

|                                   |   |  |
|-----------------------------------|---|--|
| Bid Submission Date & Time        | : | <b>On or before<br/>16/10/2009 at 11:00 Hrs.</b> |
| Technical Bid Opening Date & Time | : | <b>16/10/2009 at 14:30 Hrs.</b>                  |

**Works Engineering & Central Services Department**  
Bharat Heavy Electricals Limited,  
Piplani, Bhopal,  
M.P. – 462022



| Table of Contents |  | Page No. |
|-------------------|--|----------|
| 1                 | Tender notice  | 3        |
| 2                 | Request for proposal/Qualification Criteria                | 5        |
| 3                 | Instructions and Guidelines to the bidders                 | 7        |
| 4                 | Commercial Terms and Conditions for bidders                | 11       |
| 5                 | Technical Terms and Conditions                             | 18       |
| 6                 | Technical & Functional Requirements                        | 19       |
| 7                 | Acceptance Test Procedure (ATP) for the Project            | 22       |
| 8                 | Checklist of Formats                                       | 23       |
|                   | - Authorization of OEM – Letter of Authority, Annexure - A | 24       |
|                   | - No deviation certificate, Annexure - B                   | 25       |
|                   | - Format for Annual Turnover, Annexure - C                 | 26       |
|                   | - Format for Major Orders details, Annexure - D            | 27       |
|                   | - EMD Deposit Details, Annexure - E                        | 28       |
|                   | - Bill of material of Major Items, Annexure - F            | 29       |
|                   | - Price Bid Format (Annexure – G)                          | 30       |
| 9                 | Technical Specifications, Total pages 11 (Annexure – H)    | 31       |



1.0 **Tender Notice:**

Ref. No.: BPL/WE&CS/EMX/09-10/012/T  
Date: 16.09.2009

M/s -----  
-----  
-----

Dear Sirs,

**Subject: Supply, Installation & Maintenance of Smart Card based Time & Attendance Recording System on Lease Basis for 5 years**

Sealed quotations are invited for the supply, installation and maintenance of **Smart Card based Time & Attendance Recording System** on 5 years **Lease basis** as per specifications detailed under "TECHNICAL SPECIFICATION" and Terms and Conditions as enclosed. Firm offers should be submitted in **TWO PARTS, PART-I (EMD, Tender Fees, Techno-Commercial) & PART-II (PRICE)** as detailed in relevant sections.

**General Instructions for the bidders**

1. Tender documents (non-transferable) will be available from **25/10/2009** between 9 AM to 3 PM from the office of **DGM (EMX), WE&CS Department, Centre for Advanced Technology (CAT) Building, First Floor, Piplani, BHEL Bhopal 462022**. Tender documents can be obtained either by personal collection from the undersigned by depositing **Rs 1,000/-** (non-refundable) in the form of **Demand Draft** in favor of "**Bharat Heavy Electricals Limited**" payable at **Bhopal (M.P.)** or can be downloaded from Web site- [www.bhel.com](http://www.bhel.com) or [www.bhelbhopal.com](http://www.bhelbhopal.com). However in case the tender is downloaded from Web site, the **draft of Rs 1000/-** shall be **enclosed along-with the Part-I of the offer**.
2. Last date for sale of Tender document is **14/10/2009**
3. Earnest Money Deposit (EMD) for the tender is **Rs.2,00,000/- (Rupees Two Lakhs only)**.
4. Last date of submission of tender is upto **11:00 Hrs of due date 16/10/2009**.
5. Sealed tenders shall be dropped in the "**TENDER BOX FOR WORKS CONTRACT ONLY**" placed in the **Tender Room located in Administrative Building, Ground Floor, BHEL Bhopal plant up to 11:00 Hrs of due date**.
6. **PART-I of tender (EMD, Tender Fees & Techno-Commercial Bid)** shall be opened on the **same date at 14:30 Hrs** in the presence of such tenderer's and /or their authorized representatives who choose to be present. The representative should be the same person who has signed the documents or his authorized representative with duly authorized letter.

Tender should be addressed to of:

**P.K.VARSHNEY (DGM /EMX)**  
**Works Engineering & Central Services Department**  
**Bharat Heavy Electricals Limited,**  
**Piplani, BHEL, Bhopal, M.P. - 462022**



भारत हेवी इलेक्ट्रिकल्स लिमिटेड, भोपाल  
**BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL**

With Regards

For & on behalf of **BHEL Bhopal**.

**P.K.VARSHNEY**  
**DGM (EMX)**  
**WE&CS DEPARTMENT**  
**BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL**  
Tel No.: (0755) 2503651/2500047, Fax No. (0755) 2500047.  
Email : [pkvarshney@bhelbpl.co.in](mailto:pkvarshney@bhelbpl.co.in)



## 2.0 REQUEST FOR PROPOSAL

Bharat Heavy Electricals Ltd., Bhopal (A Govt. of India Undertaking) invites tenders from bidders who qualify as per criteria below. The tender is invited in **TWO PARTS, PART-I (EMD, Tender Fees, Techno-Commercial) & PART-II (PRICE)** for Supply, installation & maintenance of Smart Card based Time & Attendance Recording System for a period of 5 years on Lease basis. The Qualification criteria for the bidders are as follows:

### Qualification Criteria:

| S.No. | Description  |
|-------|--|
| 1     | <b>Equipment</b> : Bidder should be either Original Equipment manufacturer or should be Authorized System Integrator partner having direct purchase and support agreement with the OEM for Smart Card Readers quoted for this tender. In case the bidder is a System Integration Partner of the Principal Manufacturer, a valid certificate from the Principal Manufacturer clearly stating the relationship with the Partner and authorization to the Partner to quote for this specific tender is to be furnished. The Certificate / Authorization Letter specific to this tender must be enclosed by Authorized Representative of the OEM with the Technical Bid. |
| 2     | Bidder should have experience of successful execution of at-least one project involving Smart Card within last 7 years ending on 31.07.2009. The systems should have been working satisfactorily for minimum one year period after commissioning (six months if supplied to any of BHEL units).  |
| 3     | Bidder should have executed one single project <b>catering to minimum 2500 Smart Cards</b> and total experience of <b>5000 Smart Cards</b> within last 7 years ending on 31.07.2009.   |
| 4     | Bidder should have executed Smart Card based project(s) of financial value given below, <b>within last 7 years ending on 31.07.2009</b> :<br>a. One similar project, costing not less than <b>Rs.2.00 Crore</b><br>OR<br>b. Two similar projects, each costing not less than <b>Rs.1.25 Crore</b><br>OR<br>c. Three similar projects, each costing not less than <b>Rs.1.00 Crore</b><br>The Purchase/Work order should be on the name of the bidder. The order copy of above mentioned projects & completion certificate along with the offer is to be submitted.   |
| 5     | The bidder should have average annual turnover during last 3 years ending pervious financial year of at least <b>1.0 Crores per annum &amp; should have positive net-worth</b> in past 3 financial years. Relevant certificate from bankers/ chartered accounts / IT return to this effect shall be submitted along with the offer.  |
| 6     | Bidder should have in-house software development team for application software development, customization & implementation. List of such professionals along with their expertise area related to the said system to be submitted along with the offer.  |
| 7     | <b>Statutory Requirements</b> : In the event of award of contract, the bidder/lessor will have to observe/perform all the laws/enactment of Central/State Government being in force for such type of work/services during the contract period. Details like your P.F. Account No., ESI Reg. No., Labour License No., Income tax PAN No allotted by the concerned authority, Documents regarding your registration with Sales Tax, Excise and Service Tax authorities etc are all to be furnished in your quotation. In case any of the above statutory provisions are not applicable, the same shall be supported by certificates/documents.                         |



### 3.0 INSTRUCTIONS AND GUIDELINES TO BIDDERS

#### 3.1 INTRODUCTION

M/s Bharat Heavy Electricals Limited (A Govt. of India Undertaking) incorporated under the Companies Act 1956 having registered office at BHEL House, Siri Fort, New Delhi-110 049 through its office at New Delhi (hereinafter referred to as "BHEL", which expression shall include its successors and assigns), invites offers for Lease of Equipments / Services in BHEL, as per Technical specification and Commercial Terms and Conditions detailed in the tender documents.

#### 3.2 LEASE SCHEME

Lease Period under the scheme shall be for **five years** and the Total Price shall be for the complete scope as per technical specifications, inclusive of comprehensive on-site maintenance including repair/replacement of parts during the entire lease period, all taxes & duties, insurance, any other incidental charges, etc. Lease Period of Five years shall start from the date of successful completion of installation and acceptance by BHEL. Details of acceptance procedure and requirement are enclosed separately along with technical specifications. Vendor/Lessor shall be responsible for comprehensive on-site maintenance of the supplied equipments & services during the entire lease period. Payments shall be released in quarterly installments, as per Payment Terms and other Commercial Terms & Conditions.

#### 3.3 BIDDER TO INFORM HIMSELF FULLY:

**3.3.1** 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, for **pre-bid discussions/clarifications**, before submission of the tender.

**3.3.2** 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.

#### 3.4 PROCEDURE FOR SUBMISSION & OPENING OF BIDS

**3.4.1** Bids shall be accepted by the official inviting the tenders, **in TWO PARTS**, as described below, on or before the due date & time indicated in the Tender Notice.

##### **PART-I: (EMD, TENDER FEE & TECHNO-COMMERCIAL BID)**

This part shall consist of the following:



1. EMD in the form of Pay Order/ Bank Draft of **Rs.2,00,000/-** in favor of "**Bharat Heavy Electricals Limited**" payable at **Bhopal**. In the absence of submission of EMD, the offer will be summarily rejected.
2. Tender Fees (If the Tender documents are downloaded from Web Site) of **Rs. 1000/-** in favor of "**Bharat Heavy Electricals Limited**" payable at **Bhopal**. In the absence of submission of same, the offer will be rejected.
3. Bound volume of:
  - a) *Technical Specification & Checklist* dully filled for all the items. **The bidder should offer only as per Technical Specification of the equipments**. The Lessee reserves the right to accept or reject the technical offer.
  - b) *Bill of Material of Major Items*
  - c) *Un-priced copy of PRICE FORMAT*
  - d) *The un-priced copy of the Price bid format shall be the same as the Price bid but without the Prices. All the quoted Prices/Rates etc. shall be replaced with the word 'QUOTED' or 'Q', in the un-priced copy.*
  - e) *Enclosures as defined in Checklist of Formats (Clause no. 8).*

#### **PART-II: (PRICE BID)**

Price bids of only techno-commercially short listed vendors will be opened. Price Format containing **PRICES** only (**to be furnished in the enclosed Price Schedule format only**). Prices shall be quoted in Indian Rupees only. **Price quoted should be on Lease per quarter on 5 years lease basis.**

Price Bid 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).

#### **3.5 MARKING ON ENVELOPE**

The two parts (Part-I and Part-II) offers shall be enclosed in two separate sealed envelopes with bidder's distinctive SEAL and super-scribed as follows:

**PART I: "EMD, TENDER FEE & TECHNO-COMMERCIAL BID".**

**PART II: "PRICE BID".**

The above two parts shall be enclosed in another envelope and super scribed in bold letters with the following:

- 1. TENDER ENQUIRY NO. AND DESCRIPTION**
- 2. DUE DATE OF OPENING**

This envelope shall be addressed to the official inviting tender by name and designation as mentioned below:

**P.K.VARSHNEY (DGM /EMX)**  
**Works Engineering & Central Services Department.**  
**Bharat Heavy Electricals Limited,**



**Piplani, BHEL, Bhopal, M.P. – 462022**

Tel No.: (0755) 2503651/2500047, Fax No. (0755) 2500047

Email: pkvarshney@bhelbpl.co.in

**(Un-sealed envelopes or envelopes not super-scribed as above may not be accepted/considered).**

### **3.6 BID SUBMISSION**

- 3.6.1 Bids shall be dropped in the **"TENDER BOX FOR WORKS CONTRACT ONLY"** located in the **Tender Room, Ground Floor, Administrative Building, BHEL Bhopal plant up to 11:00 Hrs of Due Date.**
- 3.6.2 Bids can also be sent by post. It shall be sent by **"REGISTERED/SPEED POST"** only and shall be posted with due allowance for any postal delay. Bids shall reach us latest by 11:00 Hrs. of the due date. BHEL takes no responsibility for delay, loss or non-receipt of bids sent through post. Bids received after the Due Date and Time of opening are liable to be rejected.

### **3.7 BID OPENING**

- 3.7.1 **PART-I (EMD, Tender Fees & 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)** of only the techno-commercially short listed vendors shall be opened subsequently at a later date after complete evaluation of Part-I.
- 3.7.2 Date and time of **Price Bid (Part-II)** opening shall be intimated to the technically and commercially acceptable bidders only.
- 3.7.3 Not more than two representatives will be permitted to be present for the tender opening.
- 3.7.4 No correspondence shall be entertained from the bidders after the opening of Price bid(s).
- 3.7.5 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.
- 3.7.6 Unsolicited bids shall not be entertained. Unsolicited revised Price Bids also, shall not be entertained at any stage of the tendering process.
- 3.7.7 **Literature, Pamphlets submitted along-with the offer shall only be treated as supplementary information. The information/details provided as per our formats/annexure shall only be considered and evaluated.**
- 3.7.8 Manufacturer's name, Model no., Trade Mark or Patent No., if any, should be specified.
- 3.7.9 **Vendor/ Lessor not submitting their bids in two parts ie. PART-I (EMD, Tender Fee & Techno-Commercial Bid) & PART II (PRICE BID) will be out rightly rejected.**



### 3.8 VALIDITY OF OFFER

Offer shall be kept valid for four months from the due date of Tender, for Purchaser/Lessee's acceptance.

### 3.9 DEVIATIONS

Bids shall be submitted strictly in accordance with the Technical specification and Terms & Conditions of the Tender Enquiry. Vendors have to submit a "NO Deviation Certificate" in Part II of his offer as per sample enclosed (Format B of Annexure I).

**Technical and Commercial - No Deviation is acceptable.**

### 3.10 LANGUAGE & CORRECTIONS

- 3.10.1 The bidder shall quote the rates in English language and international numerals only. The metric system of units shall be used, for the purpose of tender.
- 3.10.2 Bidder shall fill the **ORIGINAL** tender documents issued by BHEL. All entries and signatures in the bid shall be in **BLUE INK only**. Each page of the bid shall be signed and stamped using official seal of the company by the bidder.
- 3.10.3 All entries shall be filled in neat and legible handwriting. No over-writings erasures and corrections are permitted and may render such bids liable for rejection.
- 3.10.4 However, if any cancellations, corrections and insertions are in the bid, the bidder shall duly attest the same.

### 3.11 REJECTION OF BID AND OTHER CONDITIONS

- 3.11.1 All Smart Card Readers shall be of same make & OEM. No mix and match is allowed.
- 3.11.2 All power cables, data cables & Passive components shall be of reputed brands (ISI Mark/ISO Certified, as per safety & security guidelines). All data cables shall of CAT-6 type. No mix and match is allowed for the same type of items.
- 3.11.3 All UPS shall be of same OEM. No mix and match is allowed.
- 3.11.4 Any format not properly filled, partially filled or not filled will make the bid liable for rejection. Bidders are requested to note that all columns, rows and spaces provided to fill up the data must be filled with relevant data without fail. In case, any bidder fails to do so or fills up irrelevant data, BHEL is not bound to seek clarifications on such items and will be free to reject the tender summarily.
- 3.11.5 Bidders may note that the Smart Card Readers are to be installed in locations already having network connectivity. Although laying of Power & Data Cables from main supply & edge level switches will be vendors responsibility.



3.11.6 Enclosures consisting of all specified documents shall be bound and cross-referenced with respect to relevant clause of this tender document. This shall be submitted along with the technical bid as a separate volume. *A check list of such documents has been also incorporated into the tender to guide the bidders.*

3.11.7 Any clarifications or information pertaining to this tender can be obtained from:

P.K.VARSHNEY (DGM /EMX)  
Works Engineering & Central Services Department  
Bharat Heavy Electricals Limited,  
Piplani, BHEL, Bhopal, M.P. - 462022  
Email: pkvarshney@bhelbpl.co.in  
Phone:0755-2503651/2500047, Fax: 0755-2502500047

**3.11.8 Canvassing in any way concerning this tender, wrong declaration, incorrect information, misleading or incorrect certifications, etc. shall be viewed seriously and suitable action will be taken as per company norms.**

3.11.9 The Purchaser/Lessee reserves to itself, full rights for the following without assigning any reasons, whatsoever:

- a) to reject any or all the bids.
- b) to increase or decrease the quantities.

3.11.10 The offer is liable to be rejected, if it is found that after Price Bid Opening, the Checklist of Price Bid submitted by the bidder in Part-I offer, is different from the Price Bid (Part -II).

3.11.11 Purchaser/Lessee reserves the right to reject a bid at any stage or to cancel the Order/Contract, if awarded and forfeit the security deposit/ Bank Guarantee, If it is found that the bidder has deliberately given wrong/misleading information in his bid.

3.11.12 The offer is liable to be rejected, If it is found that the bidder has not been quoted Prices/Rates of one or more of the enquired equipments.

### **3.12 TENDER EVALUATION**

3.12.1 Totals/ Gross Total of Prices should be indicated both in words as well as in figures. If there is a difference between prices quoted in words and figures or if there is any other price discrepancy, lower value(s) will be considered for evaluation & ordering.

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

3.12.3 Prices of optional items, if quoted, shall not be considered for Price evaluation and comparison.

3.12.4 The evaluation will be on the basis of **total Lease charges** inclusive of all taxes.



## **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.

### **4.2 EXECUTIVE SUMMARY**

#### **About BHEL**

Bharat Heavy Electricals Limited (BHEL) is today one of the largest engineering enterprise of India with an excellent track record of performance. The company has 14 manufacturing divisions, 8 Service centers and 4 power sector regional centers, besides project sites spread all over India and abroad and also regional operations divisions in various state capitals in India for providing quick service to customers. BHEL manufactures over 180 products under 30 major product groups and meets the needs of core-sectors like power, industry, transmission (including railways), defense, telecommunications, oil business, etc. Products of BHEL, make have established an enviable reputation for high quality and reliability.

#### **BHEL Bhopal's Smart Card based Time & Attendance Recording System requirements**

BHEL Bhopal intends to install and commission campus wide Smart Card based Time & Attendance Recording System for its employees. The system shall be installed at factory blocks, main gate entry locations & other site locations. The system needs to be online with the existing data communication network. Total operation for the hardware & software items for the said system is to be executed by the vendor. The output of this system will be input for Human Resource & Finance Department (SAP-HR & existing payroll, wage-roll systems). The infrastructure is proposed to be built in such a way that it scalable and can take up emerging requirements in terms of employee strength in future.

#### **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.

#### **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 250 (Rupees Two Hundred fifty only) within 30 days of award of the contract, which will remain valid for the currency of the contract.



#### 4.3 SUPPLY CONDITION:

All equipment supplied and installed at the stipulated locations shall be NEW and conforming to the contract technical specifications. The certificate of newness is to be furnished.

The Bidder /Lessor has also to produce a certificate from his principle OEM for back to back support as per enclosed format.

#### 4.4 DELIVERY

Delivery (i.e. Supply and installation) period shall start from the date of Letter of Intent (LOI).The Project is to be **completed within 20 weeks** from the date of LOI.

Supplier has to submit **Project completion schedule /Bar chart** along with the offer. **The project completion means acceptance of Total Project by BHEL as per the Acceptance Test Procedure (ATP).**

#### 4.5 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 and 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.***

#### 4.6 PAYMENT TERMS

The payment of lease 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 completing the Acceptance Test Procedure (ATP) terms. Thereafter, payment will be made at the end of each quarter.



#### 4.7 EARNEST MONEY DEPOSIT

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

4.7.1 EMD of the Bidder / Lessor shall be forfeited if

- i) After opening of the tender, the Bidder / Lessor revokes his tender within the validity period or increases his earlier quoted rates.
- ii) The Bidder / Lessor does not commence the work within the period as per LOI/Contract.

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

4.7.3 EMD shall not carry any interest.

4.7.4 EMD of the successful Bidder / Lessor shall be retained by BHEL as a Security and shall be refunded after the expiry of the lease period.

#### 4.8 PENALTY FOR DELAY IN PROJECT COMPLETION

For the delay in **project completion**, penalty shall be levied at the rate of 0.5% per week subject to maximum of 10% of the total 5 years lease charges.

#### 4.9 DEDUCTION FOR DOWNTIME

##### **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 lease 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 included 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.**

#### **4.11 MAINTENANCE**

Adequate number of onsite, resident engineers, to ensure 98% uptime and to coordinate daily operations including monitoring, maintenance & support for 24x7 working shall be available.

Maintenance service shall cover services, repairs and replacements necessary to keep the equipments in good working order on reasonable use of the equipments during the lease 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 (24x7 manner) of reporting of such incident. Vendor shall maintain sufficient equipment inventory onsite to rectify/replace the damaged/defective/non-functioning equipments. Vendor has to submit the monthly inventory status to BHEL in a prescribed format. Periodic maintenance check should be carried out to keep the equipments in good working conditions and vendor has to submit the quarterly maintenance report to BHEL. Maintenance will include all plastic and/or rubber parts, batteries, etc. **Batteries of all Smart Card Readers are to be compulsorily replaced after 2.5 years.**

#### **4.12 TRAINING**

Training of 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.

#### **4.13 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.

#### **4.14 INSURANCE**

Insurance for the complete Systems/Goods shall be arranged by the Vendor/Lessor at his own risk and cost throughout the period of lease. Purchaser/Lessee, under any circumstances, will not be responsible for any loss/damage/theft of any Systems/goods, due to any reasons, whatsoever. Claim(s) etc., if any, will be dealt with the underwriters directly by the Vendor/Lessor. Original insurance policy will be submitted to BHEL. If the lessor fails to renew the policy before the expiry, BHEL will effect the insurance from the lease rental.

#### **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, 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 trade marks 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 non-performance of the equipment/system below 98% continuously for more than 1 month, at the risk and cost of the Bidder /Lessor.
- 4.20.2. In case of the contract termination, Vendor/ Lessor will remove the equipment from Purchaser/Lessee's premises at his own risk and cost after due permission from BHEL.
- 4.20.3. Bidder/Lessor shall continue the performance of the order/contract under all circumstances, to the extent not cancelled.
- 4.20.4. Lessee reserves the rights to cancel the lease agreement in case the equipment and services are not found to be satisfactory by the Lessee.
- 4.20.5. 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.
- 4.20.6. Consequences: As soon as the lease agreement is cancelled / terminated by the Lessee, no lease rent will be payable to the Lessor.

#### **4.21 SETTLEMENT OF DISPUTES**

- 4.21.1. Except as otherwise specifically provided in the Order/Contract, all disputes concerning questions of the facts arising under the Order/Contract, shall be decided by the Purchaser/Lessee, subject to written appeal by the Bidder /Lessor to the Purchaser/Lessee, whose decision shall be final to the parties hereto.
- 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).



#### **4.22 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/ GM of BHEL, Bhopal 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 /GM to act as sole arbitrator. The arbitration shall be under 'THE ARBITRATION AND CONCILIATION ACT OF 1996' 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. 4.7.

#### **4.24 SHIFTING OF EQUIPMENT FROM A LOCATION TO OTHER**

Shifting of equipment from one location to another shall be the responsibility of the Bidder /Lessor. All the requisite works like dismantling of equipment, packing, transportation and transit insurance shall be the responsibility of the Bidder /Lessor. A mutually agreed cost can be paid by BHEL to the Bidder /Lessor on this account. 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 ON THE SUPPLIED EQUIPMENT**

In case any additional facility is required on the supplied equipment requiring upgrade 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 equipments) and terms & conditions and will be valid only after written communication to this effect.

#### **4.26 TERMINAL PAYMENT**

In case BHEL decides to surrender the equipment after the expiry of the contract, Bidder / Lessor will remove the equipment from Purchaser/Lessee's premises at his own risk and cost after due permission from BHEL. In case BHEL decides to acquire the equipments at the end of the lease period BHEL will pay a nominal charge of Rs. 100.00 for the total equipments as terminal payment.

#### **4.27** 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.



## **5.0 TECHNICAL TERMS & CONDITIONS**

1. 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.
2. The vendor has to comply the specification for structured cabling. All UTP cables shall be of CAT-6 type.
3. **The Bidder shall submit the proposed plan of execution and the methodology to execute the plan at the time of bid submission.**
4. 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.
5. The Successful Bidder shall assign a Project Manager with experience of around 3 years as the single point of contact for BHEL.
6. 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 and b) to prepare SRS (Software Requirement Specifications) as per BHEL's requirement. After the study the team will prepare and submit a report indicating processes (as is & to be) & detail SRS, duly signed by Project Manager & BHEL.
7. The Successful Bidder shall generate plans, diagrams, configurations, documentation and other associated activities for the project implementation during the delivery period but before the actual delivery dates of the items. The training should also be completed before the project completion.
8. Once the equipment/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
9. The Bidder shall be able to ensure the availability of spares of the supplied products including additional Smart Cards for a period of at least five years and should submit the commitment letter. The bidder shall provide the documentary proof of backend support letter from Principal Manufacturer, which includes Software Update support and hardware support from OEM. Bidder shall maintain adequate number of Smart Card Readers onsite as spare to maintain the uptime.
10. Any software updates, patches updates including version change with respect to the Smart Card Readers, Servers, Operating Systems & Application Software should be regularly provided during the entire lease period.
11. Bidder to maintain confidentiality of data and services being provided by BHEL



## 6. TECHNICAL AND FUNCTIONAL REQUIREMENTS

Smart Card Based Time and Attendance Recording System is to be installed at BHEL Bhopal on turnkey basis. The system should be able to meet the following requirements (but not limited to):

1. Proposed system will be installed at BHEL Bhopal as per location specified. The total 200 numbers of Smart Card readers (188 without numeric pad & 12 nos. with numeric pad) for approximately 10000 employees and others (actual number of smart cards & Readers may vary based on requirement) are envisaged for the system.
2. The complete system implementation shall include –
  - a) The complete solution will be based on Smart Card technology
  - b) Existing paper ID cards will be replaced by the Smart Cards
  - c) Installation of Smart Card Readers
  - d) Attendance of all employees shall be recorded at their respective work centers (blocks). For example attendance of an employee of block-4 will be recorded only at block 4.
  - e) Attendance data will be stored at central database server at IFX in online mode.
  - f) Web based report viewing facility shall be provided to authorized persons.
3. Preparation and supply of Smart Cards for attendance recording along with photograph will be vendor's responsibility. Necessary coordination for the photography of employees shall be done by vendor in consultation with Human Resource department of BHEL Bhopal.
4. Data from Smart Card readers will be sent to Central Database Server in online mode. BHEL, Bhopal main server has IBM P670 with AIX operating system and Oracle 10g RDBMS database.
5. Smart Card readers should connect to BHEL, Bhopal data communication network at the edge switch level. The reader should be able to communicate on standard Ethernet interface. (10/100/1000 mbps switched network).
6. The project will be on turnkey basis. All required hardware and software for the system shall be supplied, installed and commissioned by the bidder. It includes but not limited to -
  - i) Installation of Smart Card Readers with Power supply Connectivity, laying of UTP cables from edge level switches to Smart Card Readers including termination, connectorization for data connectivity & configuration of Smart Card Readers.
  - ii) Installation & configuration of Servers and Application software at Informatics Centre.
  - iii) Creation of Database tables & Configuration on Oracle Server. Server space for database along with user id & password will be provided by BHEL.
  - iv) Integration with SAP-HR and other existing systems like payroll, Wageroll.
  - v) Development & Customization of Application Software and reports as per BHEL requirements.
  - vi) The Smart Card Readers and all kind of cables to be kept concealed avoiding any kind of tampering.



- vii) Configuration implementation & maintenance of the complete system for the lease period.
- viii) To provide any extra report required by BHEL to carry out its day-to-day operations, during the implementation phase as well as for the complete lease period, will be vendor's responsibility. However time frame to fulfill such requirements may be decided mutually by Vendor & BHEL.
- ix) Consumables for printing of Smart Cards – any consumables including print cartridges required for the preparation of smart cards will be in vendor's scope.
- x) Network connectivity maintenance from edge level switch to Smart Card Reader shall be vendor's responsibility.
- xi) Resident engineer shall coordinate all activities related to the complete system operations & monitoring.

7. Data Management and Monitoring/Controlling software

- a) Data Management and Monitoring/Controlling software specification will be provided by BHEL, Bhopal and may change during the course of development of the software. Vendor will be required to do modifications in the software as per BHEL, Bhopal's requirements.
  - b) Monitoring/Controlling the maintenance functions:
    - i) Functioning /non-functioning of the Smart Card Readers deployed on the network due to any reason.
    - ii) Checking of Functioning /non-functioning of the Smart Card Readers after specified number of hours.
    - iii) Indication for Smart Card Readers working on Power or battery backup.
    - iv) A graphical display/interface for monitoring the above devices on network shall be preferable.
    - v) Change of parameters like time or date.
  - c) Data Management
    - i) Continuous monitoring and online continuous downloading of data in oracle table for each date having format (Staff No. Num(7), Time Num(4), Date DD-MON-YYYY, Location /Machine Number char(4), IN/OUT flag Char(1)). Format may change during the implementation.
    - ii) The change of data like inclusion/exclusion of Employee staff no. , change of shift etc. related to attendance management system on the Smart Card Readers. This data is to be picked up from the central software/server.
    - iii) Data files which will be generated on Oracle System should be designed in a **maintenance free fashion without cleanup facility.**
    - iv) 100% reliable and full proofing of data transfer from card reader to oracle database and vice versa.
8. Bidder shall demonstrate the working of attendance recording and procedure for downloading the data and processing it for various report generation.
9. The Bidder shall lay Power and Data cable (UTP), in different lengths as required, on wall (using suitable clamps). The vendor shall lay power and data cables in suitable conduits (PVC or GI pipes) wherever required.
10. Any civil work which may be required for the preparation of site will be the responsibility of vendor.
11. Complete documentation of the system (both hardware and software) should be provided by vendor.
12. Any extra item required like hardware/software/man-hours to make the total system successfully operational will be in the scope of vendor.



13. Supply, installation & configuration of any additional software/component required for the desired functioning of the Time & Attendance Recording Application including the Operating System shall be vendor's responsibility.
14. Onsite user training for operating the application software, for 6 days period is to be provided by the vendor at their own cost.
15. Supply of Electrical & UTP Cables, Connectors and other accessories required will be vendor's responsibility. These accessories shall be of reputed brand (ISI mark & ISO Certified wherever applicable as per safety & security guidelines).
16. Preparation and supply of Additional Smart Cards, Replacement of lost/damaged Smart Cards, Renewal of Smart Cards and Change in Smart Card Data required during the contract period or change in access rules in application software will be vendor's responsibility.
17. Supply & preparation of additional Smart Cards required during the contract period will be vendor's responsibility and the same rate will be applicable. Vendor has to ensure the availability of such additional requirement as & when needed.  
**Approximate 1200 Smart Cards shall be required annually.**
18. Bidder has to prepare and supply any additional or replacement of lost/damaged Smart Card within two working days from the date of reporting.

**19. Additional information for Total Solutions and sub system**

- a) Bidder must provide the scheme for total solutions for the system operations and networking.
- b) Bidders may visit BHEL to familiarize themselves with the layout and requirements before quoting for the system.
- c) Bidder shall provide un-priced BOM (Bill of Material) sheet along with technical compliance.
- d) Bidder must provide the technical compliance in the specified format only. As given in the enclosed specification sheet.



## **7. ACCEPTANCE TEST PROCEDURE FOR THE PROJECT**

1. Complete system supply, installation and running of system as per requirements and technical specifications must be completed for proceeding with ATP.
2. Complete system documentation, user manual, soft media and hard copy, giving details of configuration, various wiring diagrams, layout, Marking and labeling of all cables , ports , terminations etc running instructions to be submitted. This will serve as reference document in case of any problem/ system augmentation etc
3. Newness certificate: The Bidder/Lessor has to submit the newness certificate of all the equipments supplied.
4. OEM support: The Bidder/Lessor has to submit the certificate from the principal of equipment suppliers for their back to back support.
5. After the installation and commissioning of the system as per the technical specification following are to be done
  - a. Demonstration of minimum 25 number of transactions from each Smart Card Reader.
  - b. Online report for all the above swipes.
  - c. Demonstration of smooth working of all software modules as per specifications from the central application servers and from Time Office PCs.
  - d. Demonstration of web based report viewing facility on local area network with proper authorization & authentication.
  - e. Demonstration of working of Smart Card Readers on battery, in case of power failure during day & night, emergency situation.



**8.0 CHECKLIST OF FORMATS (TO BE ATTACHED WITH TECHNO-COMMERCIAL BID (PART II) DULY FILLED BY THE VENDOR)**

| S. No. | Annexure to be attached  | Format attached as annexure | Whether attached (Yes / NO) |
|--------|--|-----------------------------|-----------------------------|
| 1      | Authorization letter from OEMs for Smart Card Readers                    | Annexure A                  | Yes / NO                    |
| 2      | No Deviation Certificate   | Annexure B                  | Yes / NO                    |
| 3      | Annual Turnover Chart  | Annexure C                  | Yes / NO                    |
| 5      | Details of Major Project Executed  | Annexure D                  | Yes / NO                    |
| 6      | EMD deposited details  | Annexure E                  | Yes / NO                    |
| 7      | Bill of Material of major items  | Annexure F                  | Yes / NO                    |
| 8      | Price Format without prices, indicating the % of statutory levies/ Taxes | Annexure G                  | Yes / NO                    |



**FORMAT FOR  
 "LETTER OF AUTHORITY"**

Tender Enquiry No. : .....

Date : --/--/----

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

To,  
 -----  
 -----

Subject: **Letter of Authority**

Tender Ref. No.: ....., **dated --/--/----**

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. \_\_\_\_\_
5. \_\_\_\_\_

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 Part-II.**



FORMAT FOR  
 "NO DEVIATION CERTIFICATE"

Tender Enquiry No: ....., 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:



ANNUAL TURNOVER OF BIDDER

Tender Enquiry No. : .....

Date : --/--/----

| S.No. | Financial Year | Turnover (In Rs. Crores) |
|-------|----------------|--------------------------|
| 1     | 2006-2007      |                          |
| 2     | 2007-2008      |                          |
| 3     | 2008-2009      |                          |

Place:  
Date:

Signature with seal



ANNEXURE D

EXECUTED MAJOR ORDER DETAILS  
(As per Qualification Criteria)

Tender Enquiry No: ....., dated --/--/----

| S.No. | Organisation Name/<br>Contact Person<br>details | Type of equipment supplied<br>(with number of Smart<br>Cards) | Details of project |
|-------|---|---|--------------------|
| 1     |   |   |                    |
| 2     |   |   |                    |
| 3     |   |   |                    |

Place:  
Date:

Signature with seal



EMD DEPOSIT DETAILS

Tender Enquiry No: ....., dated --/--/----

| S.No. | EMD amount      | EMD details |
|-------|-----------------|-------------|
| 1     | Rs, 2,00,000.00 |             |

Place:  
Date:

Signature with seal



Bill of Material of major items

A. Items Required on 5 years Lease with Installation, commissioning & Maintenance

| Sno | Item  | Qty.  |
|-----|---|-------|
| 1   | Smart Cards (4k Memory) , Jacket, lanyard,photography, printing                                     | 10000 |
| 2   | Smart Card Readers (without numeric pad) with Wall mounting accessories & 1 hour SMF battery backup | 188   |
| 3   | Smart Card Readers (with numeric pad) with Wall mounting accessories & 1 hour SMF battery backup    | 12    |
| 4   | Enclosures boxes for Smart Card Readers (IP-55 Compliant)   | 188   |
| 5   | Time & Attendance Recording software  | 1     |
| 6   | Application Software  | 1     |
| 7   | Servers including, Preloaded OS with Original Media CD  | 2     |
| 8   | Server Rack with rack mountable KVM Switch, Monitor, Keyboard, Mouse                                | 1 set |
| 9   | Smart Card Printer along with Smart Card Design Software,   | 1     |
| 10  | Smart Card Personalizer   | 1     |

B. Items Required for installation(one time)-

| Sno | Item                      | Qty.                      |
|-----|---------------------------|---------------------------|
| 1   | UTP Cable                 | as per actual (per meter) |
| 2   | RJ 45 connectors          | as per actual (per unit)  |
| 3   | IO Boxes                  | as per actual (per unit)  |
| 4   | Conduits for cable laying | as per actual (per meter) |
| 5   | Power Cable               | as per actual (per meter) |

**PRICE-BID****Smart Card based Time and Attendance Recording System**

| S No. | Description   | Spec-sheet       | Quantity | Purchase price |             |  | 5 Year Lease Rentals              |   |   |
|-------|---|------------------|----------|----------------|-------------|--|-----------------------------------|---|---|
|       |   |                  |          | Unit Rate      | Total Value | AMC<br>(% of Unit<br>rate) after<br>warranty | Rental per<br>Quarter per<br>Unit | Rental per<br>Quarter for total<br>Qty. | Total Amount<br>payable for total<br>Qty. |
|       |   |                  |          | <b>a</b>       | <b>b</b>    | <b>c=(a*b)</b>                               | <b>d</b>                          | <b>e=(a*d)</b>                          | <b>f=(e*20)</b>                           |
| 1     | Smart Cards (4k Memory) ,Jacket,<br>photography, printing   | SCARD            | 10,000   |                |             |  |                                   |   |   |
| 2     | Smart Card Readers (without numeric<br>pad) with Wall mounting accessories & 1<br>hour SMF battery backup | SCR_WO_<br>PAD   | 188      |                |             |  |                                   |   |   |
| 3     | Smart Card Readers (with numeric pad)<br>with Wall mounting accessories & 1 hour<br>SMF battery backup    | SCR_WIT<br>H_PAD | 12       |                |             |  |                                   |   |   |
| 4     | Enclosures boxes for Smart Card Readers<br>(IP-55 Compliant)  |                  | 188      |                |             |  |                                   |   |   |
| 5     | Time & Attendance Recording software  |                  | 1        |                |             |  |                                   |   |   |
| 6     | Servers including, Preloaded OS with<br>Original Media CD   | SERVER           | 2        |                |             |  |                                   |   |   |
| 7     | Server Rack with rack mountable KVM<br>Switch, Monitor, Keyboard, Mouse                                   | SERVER           | 1 set    |                |             |  |                                   |   |   |
| 8     | Smart Card Printer along with Smart Card<br>Design Software   | PRINT_PE<br>RS   | 1        |                |             |  |                                   |   |   |
| 9     | Smart Card Personalizer   | PRINT_PE<br>RS   | 1        |                |             |  |                                   |   |   |
| 10    | Total Out right Price   |                  |          |                |             |  |                                   |   |   |
| 11    | Total Quarterly Rental Value  |                  |          |                |             |  |                                   |   |   |
| 12    | Total cash outflow for 5 year lease rentals   |                  |          |                |             |  |                                   |   |   |



**SPECIFICATION FOR SMART CARD**  
(TO BE FILLED BY BIDDER)

| S. No | Feature                 | Qualifying Minimum BHEL Requirements   | Vendor Compliance | Remark |
|-------|-------------------------|--|-------------------|--------|
| 1     | Qty                     | 10000 nos  | Yes/No            |        |
| 2     | Card Type               | The smart card should be a <b>contactless card</b> and will be used for time attendance & access control purposes.                       | Yes/No            |        |
| 3     | Contactless Interface   | Original Phillips Mifare 4K confirming to ISO 14443 Type A   | Yes/No            |        |
| 4     | Pre-Printing            | The cards should be pre-printed from both the sides with basic legends and instructions of BHEL. (will be provided by BHEL)              | Yes/No            |        |
| 5     | SDK and Encoding Scheme | SDK and Encoding Scheme should be provided to BHEL Bhopal.   | Yes/No            |        |
| 6     | Accessories             | The identity card will be held in a plastic card holder which has a lanyard coupled with a clip. BHEL logo should be printed on lanyard. | Yes/No            |        |
| 7     | Card body               | PVC or equivalent material at card surface (standard: mat finish).   | Yes/No            |        |
| 8     | Compliance              | ISO10373 compliant (resistant to alcohol, Fuel B, sweat etc).  | Yes/No            |        |
| 9     | Lamination              | Smart cards will be laminated.   |                   |        |

Date:

Place:

(Signature of the bidder)



**SPECIFICATION FOR SMART CARD READER WITH NUMERIC PAD  
(TO BE FILLED BY BIDDER)**

| S No | Feature                       | Qualifying Minimum BHEL Requirements   | Vendor Compliance   | Remark |
|------|-------------------------------|--|---|--------|
| 1    | Qty                           | 12 nos   | Yes/No  |        |
| 2    | Make & model                  | PI specify make & model  | Yes/No  |        |
| 3    | Interface                     | Should have On board integrated TCP/IP 10/100, Ethernet port, with RJ 45 connector. Built In TCP/IP communication protocol using static IP addresses.  | Yes/No  |        |
| 4    | mode of communication         | Should support online and offline mode of communication with validation in both modes  | Yes/No  |        |
| 5    | RS-232 port                   | Min. 1 No in-built RS 232 ports.Necessary in case of link failure.   | Yes/No  |        |
| 6    | RS 485 port                   | 01 No. required. Necessary for connectivity with any future devices or flexibility for connecting two machines together.   | Yes/No  |        |
| 7    | Contactless Smart Card Reader | Contactless Phillips Mifare Standard Smart Card Reader/Writer.(Operating Frequency: 13.56 Mhz).  | Yes/No  |        |
| 8    | DI/DO Ports                   | Minimum programmable 2 Inputs and 1 Output Relay for connecting external devices like sirens or hooters, locks, turnstiles, boom barriers, security alarms, sensors etc.   | Yes/No  |        |
| 9    | Non volatile RAM              | Non volatile RAM for better data integrity.In case of failure of AC mains or battery, data should not be lost.   | Yes/No PI specify the RAM size  |        |
| 10   | Local storage                 | Should be able to store atleast 20000 transactions in offline mode. Each transaction consists of date, time, card number, machine number).In addition, each machine should be capable of storing employee information (Min 3000 employees) for local validation in case of link failure and when cross validation from server is not possible. | Yes/No PI. specify No. of transactions can be stored in offline mode & No. of employee database that can be stored. |        |
| 11   | Non volatile RTC              | Required   | Yes/No  |        |



|    |                                    |  |                            |  |
|----|------------------------------------|--|----------------------------|--|
| 12 | LCD Display                        | backlit LCD display for easy readability in even dark conditions and daytime. Screen should have sufficient space for display employee number & date, time.  | Yes/No                     |  |
| 13 | Connectivity                       | Ethernet, Serial Port  | Yes/No                     |  |
| 14 | Programmable Keypad                | Minimum 16 key keypad with atleast 4 programmable keys on the machine for entering local information or other system query or use. Also for future applications of canteen, menu selection, credit, debit etc. | Yes/No                     |  |
| 13 | Firmware Upgrades                  | Should be able to remotely upgrade the software in the Reader over Ethernet  | Yes/No                     |  |
| 14 | Configuration                      | Should have a browser based interface for remote configuration   | Yes/No                     |  |
| 15 | Indications for critical functions | Indications for critical functions like Power on AC mains/battery indication, reader acknowledgment, error indications etc   | Yes/No                     |  |
| 16 | Range                              | Should be able to sense the smart card from minimum 3 cms distance   | PI specify                 |  |
| 17 | Compliance                         | CE/ISO 14443 compliant   | Yes/No                     |  |
| 18 | Climate Suitability                | Should be suitable for indoor/outdoor climatic conditions (temp/humidity etc.)   | PI specify (temp/humidity) |  |
| 19 | Power Supply & Backup              | Power Supply with in built Battery Charger & SMF Battery With min 01 hour backup (one for each SCR).   | Yes/No                     |  |

**Date:**

**Place:**

**(Signature of the bidder)**



**SPECIFICATION FOR SMART CARD READER WITHOUT NUMERIC PAD  
(TO BE FILLED BY BIDDER)**

| S. No | Feature                       | Qualifying Minimum BHEL Requirements  | Vendor Compliance   | Remark |
|-------|-------------------------------|---|---|--------|
| 1     | Qty                           | 188 nos   | Yes/No  |        |
| 2     | Make & model                  | PI specify make & model   | Yes/No  |        |
| 3     | Interface                     | Should have On board integrated TCP/IP 10/100, Ethernet port, with RJ 45 connector. Built In TCP/IP communication protocol using static IP addresses.   | Yes/No  |        |
| 4     | mode of communication         | Should support online and offline mode of communication with validation in both modes   | Yes/No  |        |
| 5     | RS-232 port                   | Min. 1 No in-built RS 232 ports. Necessary in case of link failure.   | Yes/No  |        |
| 6     | RS 485 port                   | 01 No. required. Necessary for connectivity with any future devices or flexibility for connecting two machines together.  | Yes/No  |        |
| 7     | Contactless Smart Card Reader | Contactless Phillips Mifare Standard Smart Card Reader/Writer.(Operating Frequency: 13.56 Mhz).   | Yes/No  |        |
| 8     | DI/DO Ports                   | Minimum programmable 2 Inputs and 1 Output Relay for connecting external devices like sirens or hooters, locks, turnstiles, boom barriers, security alarms, sensors etc.  | Yes/No  |        |
| 9     | Non volatile RAM              | Non volatile RAM for better data integrity. In case of failure of AC mains or battery, data should not be lost.   | Yes/No PI specify RAM size  |        |
| 10    | Local storage                 | Should be able to store at-least 20000 transactions in offline mode. Each transaction consists of date, time, card number, machine number).In addition, each machine should be capable of storing employee information (Min 3000 employees) for local validation in case of link failure and when cross validation from server is not possible. | Yes/No PI. specify No. of transactions can be stored in offline mode & No. of employee database that can be stored. |        |



|    |                                    |  |                            |  |
|----|------------------------------------|--|----------------------------|--|
| 11 | Non volatile RTC                   | Required   | Yes/No                     |  |
| 12 | LCD Display                        | Backlit LCD display for easy readability in even dark conditions and daytime. Screen should have sufficient space for display of employee number, date & time. | Yes/No                     |  |
| 13 | Firmware Upgrades                  | Should be able to remotely upgrade the software in the Reader over Ethernet  | Yes/No                     |  |
| 14 | Configuration                      | Should have a browser based interface for remote configuration   | Yes/No                     |  |
| 13 | Connectivity                       | Ethernet, Serial Port  | Yes/No                     |  |
| 14 | Indications for critical functions | Indications for critical functions like Power on AC mains/battery indication, reader acknowledgment, error indications etc                                     | Yes/No                     |  |
| 15 | Range                              | Should be able to sense the smart card from minimum 3 cms distance   | PI specify                 |  |
| 16 | Compliance                         | CE/ISO 14443 compliant   | Yes/No                     |  |
| 17 | Climate Suitability                | Should be suitable for indoor/outdoor climatic conditions (temp/humidity etc.)   | PI specify (temp/humidity) |  |
| 18 | Power Supply & Backup              | Power Supply with in built Battery Charger & SMF Battery With min 01 hour backup (one for each SCR).   | Yes/No                     |  |

**Date:**

**Place:**

**(Signature of the bidder)**



**SPECIFICATION FOR SERVER  
(TO BE FILLED BY BIDDER)**

| Sno | Feature  | Qualifying Minimum BHEL Requirements   | Vendor Compliance | Remark |
|-----|--|--|-------------------|--------|
| 1   | Qty  | 02 nos.  | Yes/No            |        |
| 2   | Make & Model                                       | PI specify   | Yes/No            |        |
|     | Processor  | PI specify   |                   |        |
| 3   | RAM  | Minimum 2 GB   | Yes/No            |        |
| 4   | Storage Capacity                                   | Minimum 72 GB  | Yes/No            |        |
| 5   | Ethernet connectivity                              | 10/100/1000 mbps   | Yes/No            |        |
| 6   | Rack Mounting                                      | Should be Rack Mountable   | Yes/No            |        |
| 7   | Server Rack  | Floor Mounted, should have sufficient space for hosting minimum two servers along with KVM Switch & Rack mountable Display unit, Keyboard & Mouse. Server Rack should have sufficient number of Cable Managers, cooling fans, 5 socket power strips. | Yes/No            |        |
| 8   | Rack Muntable KVM Switch, Monitor, Keyboard, Mouse | Required   | Yes/No            |        |
| 9   | Operating System                                   | Preloaded OS along with licensed Media CD for each server.   | Yes/No            |        |
| 10  | Other software/component                           | Any software/component required for the desired functioning of Time & Attendance Recording Application.  | Yes/No            |        |

Date:

Place:

(Signature of the bidder)



**SPECIFICATION FOR SMART CARD PRINTER & PERSONALYSER KIT  
(TO BE FILLED BY BIDDER)**

| S. No                                | Feature      | Qualifying Minimum BHEL Requirements  | Vendor Compliance | Remark |
|--------------------------------------|--------------|---|-------------------|--------|
| <b>A.SMART CARD PRINTER</b>          |              |   |                   |        |
| 1                                    | Qty          | 01 number   | Yes/No            |        |
| 2                                    | Make & Model | Pl specify  | Yes/No            |        |
| 3                                    | Printing     | Color printing  |                   |        |
| 4                                    | Print Method | dye sublimation   | Yes/No            |        |
| 5                                    | Resolution   | Min 300 dpi   | Yes/No            |        |
| 6                                    | Printing     | Dual sided printing   | Yes/No            |        |
| 7                                    | Software     | Smart Card design software  | Yes/No            |        |
| 8                                    | Cartridges   | Sufficient number of cartridges to prepare Smart Cards as mentioned in the tender scope | Yes/No            |        |
| <b>B.SMART CARD PERSONALYSER KIT</b> |              |   |                   |        |
| 1                                    | Qty          | 01 number   | Yes/No            |        |
| 2                                    | Software     | Along with necessary software & driver  | Yes/No            |        |

Date:

Place:

(Signature of the bidder)



**SPECIFICATION FOR DATA ACQISITION SOFTWARE FROM SMART CARD  
READER  
TO BE FILLED BY BIDDER**

| S. No.                         | Feature                  | Qualifying Minimum BHEL Requirements   | Vendor Compliance | Specifications offered by vendor |
|--------------------------------|--------------------------|--|-------------------|----------------------------------|
| <b>A.General Requirements:</b> |                          |  |                   |                                  |
| 1                              | Package                  | Should be a standard package and should not require any additional utility like MS ACCESS or any intermediate stage.   | Yes/No            |                                  |
| 2                              | Communication            | Should support true ONLINE mode of communication with Card Readers and Oracle 10g database   | Yes/No            |                                  |
| 3                              | Updation                 | Should directly update the RDBMS table on the RDBMS server, in ONLINE mode, with validation, without any intermediate staging table on local PC or Server to avoid manipulation and chances of data loss or corruption | Yes/No            |                                  |
| 4                              | Customisation            | Database tables,application software and reports should be customisable as per BHEL specifications.  | Yes/No            |                                  |
| <b>B.MIS Software:</b>         |                          |  |                   |                                  |
| 1                              | Accessibility            | Should be true web based access in a 3-tier environment.Access to specified users on the network through defined user rights through browser like IE.  | Yes/No            |                                  |
| 2                              | Multitasking, Multi-user | Required   | Yes/No            |                                  |
| 3                              | Integration              | Integration with the other existing systems  | Yes/No            |                                  |
| 4                              | Print facility           | Printer independent printing   | Yes/No            |                                  |
| 5                              | Customisation            | should be customised according to BHEL requirement.  | Yes/No            |                                  |

Date:

Place:

(Signature of the bidder)



**SPECIFICATION FOR TIME & ATTENDANCE RECORDING SOFTWARE  
(TO BE FILLED BY BIDDER)**

| S. No. | Qualifying Minimum Requirements  | Vendor Compliance | Specifications offered by vendor | Remark |
|--------|--|-------------------|----------------------------------|--------|
| 1      | Single software to be used for Time & Attendance Management and Access Control, so that for future upgrade the same software can be used also for Access Control management.   | Yes/No            |                                  |        |
| 2      | The Software should be web based so that the administrator can access the software console from any location within BHEL Bhopal Network.   | Yes/No            |                                  |        |
| 3      | The software should have the capability to integrate with the existing HR, Payroll, Visitor Management System and SAP-HR System  | Yes/No            |                                  |        |
| 4      | The software should integrate with supplied readers in TCP/IP protocol   | Yes/No            |                                  |        |
| 5      | The software should provide all the administration functionalities like employee data generation, attendance monitoring, attendance editing, and report generation.  | Yes/No            |                                  |        |
| 6      | The software should have scheduler program to upload and download data, to and from, the reader via the TCP/IP protocol.   | Yes/No            |                                  |        |
| 7      | The scheduler program should have user selectable time interval or setting specific time during the day.   | Yes/No            |                                  |        |
| 8      | The Software should have administration module to remotely control and manage all the supplied readers on LAN.   | Yes/No            |                                  |        |
| 9      | The Attendances Recording System should have a work flow based module to capture data regarding short leave / purpose of movement for different reasons like Outdoor Duty with proper authorisation. The module should be truly web based & should be accessible from any PC on BHEL LAN with any browser like IE. |                   |                                  |        |



|      |   |        |  |  |
|------|---|--------|--|--|
| 10   | <b>The software should have User Administration to provide for the following functions</b>    | Yes/No |  |  |
| i    | Login provision   | Yes/No |  |  |
| ii   | Location based logins   | Yes/No |  |  |
| iii  | Create user   | Yes/No |  |  |
| iv   | Edit user   | Yes/No |  |  |
| v    | Provision for creating user for location / Department   | Yes/No |  |  |
| vi   | Provision for giving selective user rights  | Yes/No |  |  |
| vii  | Logout functionalities  | Yes/No |  |  |
| 11   | <b>The software should have General Administration to provide for the following functions</b> | Yes/No |  |  |
| i    | Add location / department   | Yes/No |  |  |
| ii   | Delete Location / Department  | Yes/No |  |  |
| iii  | Provision to add new shift  | Yes/No |  |  |
| iv   | Provision to deactivate existing shifts   | Yes/No |  |  |
| v    | Provision to edit shift information   | Yes/No |  |  |
| vi   | Provision for changing permissible timings  | Yes/No |  |  |
| vii  | Provision to specify rules for marking late   | Yes/No |  |  |
| viii | Provision to specify rules for calculating Overtime   | Yes/No |  |  |
| ix   | Provision to add weekly holidays  | Yes/No |  |  |
| x    | Allocating Yearly holidays  | Yes/No |  |  |
| 12   | <b>Report generation module to provide:</b>   | Yes/No |  |  |
| i    | Employee list : Details of one employee per screen including shift information, leaves etc    | Yes/No |  |  |
| ii   | Daily attendance report (Number of hours worked)  | Yes/No |  |  |
| iii  | Monthly attendance report (Number of hours worked)  | Yes/No |  |  |
| iv   | Late entry report   | Yes/No |  |  |



|      |  |        |  |  |
|------|--|--------|--|--|
| v    | Continues absentee report  | Yes/No |  |  |
| vi   | Overtime report  | Yes/No |  |  |
| vii  | Leave balance report   | Yes/No |  |  |
| viii | Leave transaction report   | Yes/No |  |  |
| ix   | Weekend report   | Yes/No |  |  |
| x    | Unauthorized access report   | Yes/No |  |  |
| 13   | <b>Backup and restore facility</b>   | Yes/No |  |  |
| 14   | The design of the software should be such that, any future addition of biometric or non biometric readers should require no changes to the software. | Yes/No |  |  |
| 15   | The software should integrate to existing Oracle 10g database.   | Yes/No |  |  |
| 16   | Customisation-should be customised according to BHEL requirement.  | Yes/No |  |  |

**Date:**

**Place:**

**(Signature of the bidder)**