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भारत सरकार
GOVERNMENT OF INDIA
भाभा परमाणु अनुसंधान केन्द्र
BHABHA ATOMIC RESEARCH CENTRE
Centre for Design and Manufacture

REF: - BARC/CDM/BCP/2017/ 1496

December 21, 2017

TO,
M/s

Sub: -Fabrication, Supply, Installation and Commissioning of Web based Access Control System in Clean room and NDT lab at CDM.

Dear Sirs,

We would like to have the facility of Web based Access Control System in two rooms of our CDM building.

Kindly send your most competitive quotation for fabrication, Supply, installation and commissioning of door access control system on or before 25-01-2018. **The quotation should be in a sealed envelope, super scribed "Fabrication, Supply, Installation and Commissioning of Web based Access Control System" and addressed to: Head, CDM/BARC, Trombay, Mumbai-400085 (Kind attn: Shri B.C.Pandey) by speed post only.**

Scope of Work: -

The scope of work include Access Control System for two number of door with reader terminal, battery backup power supply, fingerprint based enrolment station , Mifare card based exit reader, multiple door controller, web based Access Control System Software as per the technical specification attached. These are to be supplied, installed and commission at purchaser place.

(The Door Lock and PC are not in the scope of your supply. They will be provided by us.)

Acceptance Criteria:

The access control system after commissioning will be tested at our end for satisfactory function. After satisfactory performance of the system, final acceptance will be issued.

The following may be considered before quoting:-

1. No Advance Payment is permissible.
2. Offer shall be in your printed on letterhead with GST nos. Copy of PAN card shall be sent along with the offer. Income- Tax @2% will be deducted from your bill.
3. Payment will be made only upon satisfactory completion of commissioning. Advanced Stamped receipt for the full amount is required by our Accounts Division for processing the payment.
4. After acceptance of the system, the payment is normally released in two weeks.
5. All required items have to be supplied by you. The scope of work includes supply of all required material. Pl. note that the Door Lock and PC are not in the scope of your supply.
6. The completion time for fabrication is 30 days after issuing the Work Order.
7. For any clarifications in this regard, shri B.C.Pandey, SO/E may be contacted on Ph: 25595024

Guarantee: - The items and the total system shall carry a guarantee for the period of one year after commissioning.

Yours Faithfully,


(S.P.Srivastava)

Head, Centre for Design and Manufacture
एस.पी. श्रीवास्तव / S.P. Srivastava
अध्यक्ष, अभिकल्पन एवं विनिर्माण केंद्र
Head, Centre for Design and Manufacture
भारत सरकार / Government of India
भाभा परमाणु अनुसंधान केंद्र/ Bhabha Atomic Research Centre
ट्रॉम्बे, मुंबई - ४०० ०८५/ Trombay, Mumbai - 400 085.

- CC: 1. Head, SIRD, with a request to upload on BARC website.
2. Director, DCSEM, with a request to display on DPS notice board at VSB
3. BARC/CDM Notice board
4. Three addresses as per attached list.
5. File/ B.C.Pandey

Technical Specifications for Web Based Access Control System Components

13.56 MHz, Mifare Technology based Smart RFID card & Fingerprint Reader/terminal for Access Control System

1. READER TERMINAL:

Reader should support ISO 14443A based on the 13.56 MHz. contactless Mifare technology, Mifare-plus, Desfire, SmartMX currently available in market. It should have optionally ISO 7816 SAM card interface and holder.

General:

- Credential Support : Fingerprint, Card and PIN
- Display : 128 x 64 Dot Matrix Display
- Keypad : 16 Touch sense keys
- Input voltage Range : 7 to 24V DC
- Card sensing range : Minimum 40mm
- Card processing time : Less than 1 sec
- Card Read/Write Facility must support read and write to Mifare, Mifare-plus, Desfire, Smart MX contactless technology cards.
- There must be facility to configure fail-safe or fail secure mode in the case of power failure of card reader.
- Gate/Door opening time should be configurable.
- Card readers must have
 - Anti pass back (APB) check facility and it must be configurable.
 - Facility to check the validity of the card.
 - Arrangement for easy installation and maintenance.
 - An internally rechargeable battery for storage of time settings and other settings when reader power goes off.
 - Self-diagnostics features for readers
- DC power supply inputs must be protected against over-voltage, reverse polarity and over current.
- Card reader must read different data from various sectors available in Mifare 4Kb card memory such as UID, Employees name, Department, Validity, D.O.B. etc. using user defined 'Keysets' as per the Data structure provided by the user.

Capacity:

User Capacity : 50,000 (Min. 9600 in 1:N Mode) or higher
Template Storage Capacity : 9,600 in 1:N Mode and 1 lac in 1:1 Mode
Template Per User : Up to 10 (Single Template per Finger Mode)
: Up to 5 (Dual Template per Finger Mode)
Event Buffer : 500,000 or higher

Communication:

Ethernet : 10/100 Mbps on Ethernet

Interfaces:

Exit Switch : Push Button
Gate/Door position Status Sense : Programmable NO, NC, Supervised
Gate/Door Lock Relay : SPDT Relay (Min. 2A@30 VDC)
Gate/Door Lock Power : Internal 12VDC @ 0.5A or External
Aux-In : Programmable NO, NC, Supervised
Aux-Out : SPDT Relay 2A@30 VDC contacts
Exit Reader Interface : RS-232, and Wiegand IN (optional)

Audio-Visual Indications:

LED & Buzzer : for Status, Alarm, Allowed, Denied

Environmental:

- a) Operating Temperature : 5 to 55 Deg. C or better
- b) Humidity : 10-85% RH (Non-condensing) or better
- c) Enclosure : ABS
- d) Weight : Not more than 500 gms

2. Battery Backed up Power Supply Unit

The Smart uninterrupted switch mode battery backed Power Supply should provide power for the reader unit and the optional door locks. Optionally it should provide interconnection facility for field input/ outputs, looping of main supply.

- Output: uninterrupted 10-14V dc @ 2A or higher
- Output Ripple: < 100 mV
- Load Regulation: < 2%
- Operating AC Power supply: 160 to 260V ac 50 Hz.
- Internal rechargeable 12/7 Ah Lead Acid Battery.
- Reader operation time: 12 hours on battery.
- Auto charge on mains supply.
- Low battery cut-off to avoid battery deep discharge.
- Visual Indications: for Battery Low, Mains fail.
- All visual indications on front display.
- Mountable on wall.
- Ingress Protection: IP54.
- Operating Temperature: 5-55 Deg. C
- Humidity: 10-85% RH (Non-condensing) or better

3. Fingerprint based Enrolment Station

Finger Print Sensor : Optical (Scratch free sensor surface)
Fingerprint Sensor Type : Suprema
Operating Voltage : Feed from PC / Laptop through USB
Enrolment Time : <0.1 Seconds (Typical)
Interface USB 2.0 : High Speed/ Full Speed, Plug & Play
Resolution : 500 / 256 DPI gray
Template Size : 384 Bytes approx.
Sensing Area : 16 x 18 mm
Image Size : 288 x 320 Pixels
Operating System : Microsoft Windows

4. Mifare Card based Exit Reader

- Wiegand/RS-232 Interface

- IP65 Rating
- Tamper Detection
- Tri Color LED and Buzzer
- 12VDC Power Supply through Adaptor or Battery Backup

5. Multiple Gate/Door Controllers

- Controls Up to 255 Gate/Door Controllers
- Ethernet, RS-485, USB, Aux Input and
- Aux Output Port
- Works in Two Operation Modes:
- Standalone Mode with Built-in Software
- Network Mode with Host software
- Min. 25,000 Users Capacity and 500,000 Events Storage

6. Web based Access Control System Software for 100 Users

PC based software should communicate with multiple Access Control Reader Controllers using Ethernet LAN interface. It should communicate with the access control readers to configure them, to fetch swipe data and to monitor their health. It should generate various reports including Access granted, Access Denied, Attempted Entry, Unused Alarm Entry, Duress Alarms log w.r.t. Date & Time. The reports can be generated for one employee, a group of employees or for a department.

- Should Support Up to 65,000 Gate/Door Controllers
- Basic Access Control, Basic Time Attendance and Enrollment Management
- Compatible with all reader Hardware
- Time, User and Zone based Access Control
- Access Zones, Access Modes and Access Level configuration
- Advanced Access Control Features Such as 2-Person Rule, First-in User Rule, Anti-pass Back, Guard Tour, Duress Detection, Time Stamping and More
- Input and Output Linking
- Various Reports Generation

Desired Features of software:

- **Reader Master** – Should allow editing of various access points and their interface details viz. IP address, Unit ID, Com Port.
- **Employee Master** - Allows editing of employee details, like name, employee number, shift, access zones.
- **Reader Configuration** - Allows modification of reader parameters, like operating mode, gate/door open time, welcome string, Alarm settings, Timeouts, etc. These parameters are also stored in the local database.
- **Card Personaliser / Finger Encoding (option)**: Allows Mifare card/ Finger print encoding based on the employee master information. Needs externally connected personaliser.
- **Offline Data Gathering** – Periodically polls all the connected readers for swipe data and displays with user photograph if available. Data is available in near real-time (within 30 seconds).

- **Headcount** – Zonewise presence of employees is available. Alternately employee can be tracked within a zone.
- **Clock Data Editing** - Allows editing of the time data (by administrators with time data edit permission).
- **Database** : MYSQL
- **Export Function** - Export function can be used to export data to a CSV file.
- **Time Synchronization** - Time can be synchronized of all the connected readers on a periodic basis.
- **Large Data** -Upto 10Gb data can be stored in the current tables. Older data is moved to archives. Instantaneous Reports are available on the current table data.
- **Easy of Operation**: User can group different readers and employees. Different actions can be applied to selected group of readers or employees.

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