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# CENTRAL BOARD OF SECONDARY EDUCATION

*(An Autonomous Organisation under the Union Ministry of Human Resource Development Govt. of India)*
**"SHIKSHA KENDRA", 2, COMMUNITY CENTRE, PREET VIHAR, DELHI – 110092**

**F-2021/ROT/SS/2013/** **06.11.2013**

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**Sub: Limited Tenders for EPABX System for Regional Office, Trivandrum**

**Sir,**

The CBSE intends to provide EPABX System for Regional Office, Trivandrum. Reputed agencies of with minimum 5 years experience and having executed two (2) similar works each costing Rs. 1.0 lakh or more in reputed organizations need apply. An EMD of Rs. 5,000/- payable through DD/BD in f/o the Secretary, CBSE must be attached. The interested agencies must enclose all requisite documents. Price-Bid must be sealed separately. Sealed tenders complete in all respect must be submitted latest by 15.11.2013 upto 2:00 p.m. & dropped in a tender box placed at Kendriya Vidyalaya, Pattom, Trivandrum. Also, tenders duly filled-in can be dropped in the tender-box placed at Reception Hall, CBSE HQ Bldg., 2, Community Centre, Preet Vihar, Delhi-92. The technical-bids shall be opened on the same day at 2:30 p.m.

Incomplete & conditional tenders shall be summarily rejected. The Secretary, CBSE reserves the right to reject any or all the tenders without assigning any reason thereof.

**(S.K.Sharma)**
**Consultant(Tech.)**

# CENTRAL BOARD OF SECONDARY EDUCATION
## TECHNICAL BID

**Last date of submission: 15.11.2013**
**Upto 2:00 p.m.**

**Name of work : Limited Tenders for EPABX System for Regional Office, Trivandrum**

1. Credentials of the Tenderers

1.1 Name of the Agency with ……

Regn. No. ……

1.2 Office Address and ……
Tel. No. ……

1.3 Name(s) of the Proprieter/ ……
Partners ……

1.4 WCT No. ……

1.5 PAN No. ……
(with documentary evidence)

1.6 Annual turnover during last three years
(2010-11,2011-12,2012-13) ……
supported with documentary evidence……

2. Past Experience (preferable last three years)……..
With all necessary documentary evidence……
Such as copy of work order etc.

| SL. Nos. | Year | Name of the Organization | Cost of the work (executed) | Officers Concd. In the Organization with T.No. | Period From |
|---|---|---|---|---|---|
| 01. | 2010-2011 | | | | |
| 02. | 2011-2012 | | | | |
| 03. | 2012-2013 | | | | |

2.1 Has the firm been ever debarred/Black ……
Listed by any organization ? ……

If 'Yes' the details thereof. ……

2.2 Similar work in hand at Trivandrum or near-by cities……..

2.3 The organizational set-up including Technical infrastructure/staff strength in all the categories.
……

2.4 Particulars of Demand Drafts annexed as Earnest Money & Cost of tender
……

Amount : ……

DD Nos. : ……

Issuing Bank with date of issue : ……..

(Signature of the tenderer)
With complete address and seal

Tel. No. :……..

Mobile No.: …….

Place : ……..

Date : …….

**Functional & Technical Requirements of Digital Exchange:**

1. The EPABX should be fully digital and should employ Stored Program Control (SPC) using Pulse Code Modulation (PCM) and Time Division Multiplexing (TDM), confirming to latest ITU-T (earlier CCITT) standards.

2. The system should be 100% non-blocking.

3. The offered system should have the connectivity of 02 PRI 1 SDN LINE – PSTN LINES, 8 DIGITAL EXTNS., 28 ANALOG EXTNS and be expandable upto 150 ports.

4. The Central Processing Unit (CPU) of EPABX should use 32 bit microprocessor with system memory on a MMC card and not on EPROM or a floppy disc drive.

5. The system should be able to restart automatically without human intervention when the external ac power supply is resumed after complete power failure i.e. even after the batteries are discharges.

6. The system should have integrated Modem on the central motherboard for remote maintenance.

7. The system should be suitable to accommodate both Decadic Pulse (DP) and DTMF telephones. The system should support outgoing DTMC transmission even from Digital phones.

8. It should be possible to remove and put back line or trunk cards from the system even in online condition.

9. The system software should be protected against loss/ alteration of memory due to power failure. Unauthorized command or any other faulty condition.

**10. The offered system should have integrated Universal Call Distribution system (UCD) in-built.**

**11. System should also have a standards based CSTA interface available, for integration of 3rd party Call Center applications.**

12. The system should work with any type of public exchange or similar network to which it will be connected without requiring any modification in networks. It should be possible to network with exchanges of different makes / technologies using E & M lines, ISDN PRI/PRI lines.

13. The exchange shall accept different types of trunk signaling such as:

- EDSS1/1TR6 for IDSN PRI and PRI
- Ringdown
- Analog C.O. Lines
- DTMF Signaling

14. The system should have a modular design for further expansion of hardware.

15. The equipment should have a modular design for further expansion of hardware.

16. The system should support simultaneous voice and data capability over the same single pair telephone cable in (2B+D) ISDN PRI format. The following voice & data terminals should be supported.

- ISDN terminals such as ISDN-PC card
- ISDN FAX (G4)
- Video Conferencing Equipment
  The system should also support PRI ISDN in (30B+D) Format.

17. The system should have integrated Voice Mail, Auto attendant.

18. The features mentioned below should be available from extensions.

- Call forwarding
- Do not disturb
- Override do not disturb
- Speed dialing : system numbers
- Speed dialing : individual numbers
- Barge in
- Call back
- Paging, both external and internal
- Call parking
- Parallel ringing on user's extension & his mobile phone

19. In the night mode when the operator is not present at the console, the direct lines will have to be routed to different extensions for incoming calls. Once the call lands in the department it should be possible to answer it from any station.

20. It should also be possible to have a different class of service during the day and during the night.

21. It should be possible to integrate an announcement/ industrial paging system with the proposed EPABX without any external additional hardware.

22. It should be possible to directly connect an external music source for music on hold.

23. The system should have an in-built V.24 port from which call-billing data can be obtained.

24. The system should have integrated Modem for remote maintenance, the system should also **support LAN based remote maintenance.**

**25. The system should support centralized system administration using SNMP (Simple Network Management Protocol).**

26. The user interface of cordless handsets should be consistent with that of Digital phones, Messages should be able to be sent from cordless handsets to the digital phones and vice versa.

27. The system should support direct LAN TCP-IP Connectivity.

28. **System – System Networking over IP should be possible:**
The system should be able to use the existing IP network to get connected to a similar system at other location with complete feature transparency between the 2 systems.

29. System should supports Digital Phones on Single pair of Cable.

30. Adapters for connecting ISDN So Terminals like Group IV Fax, Video Conferencing equipment, Digital Phones, Analog Phones, Headset & mic adapter etc.

31. **System should support soft phones and IP phones for VOIP (Voice Over IP) Applications.**

**Features of the system :**

- Extension to extension calling
- Extension to extension call barring
- Operator calling
- Operator call barring
- Incoming call routing should be possible to a predefined extensions, a hunting group or group ringing.
- External CLI on analog & digital extns. Should be available on ISDN PRI LINE & analog trunk lines
- The group ringing and hunting groups should be able to accommodate upto 32 extensions
- It should be possible to define the hunting groups as either linear or cyclic hunting
- Night mode activation via authorized extensions only
- Different class of service for extensions in the night mode

- Automatic call-back to busy and ringing extensions
- It should be possible, via a code, to ring upto 32 extensions simultaneously. These extensions could be analog phones, Digital phones or a combination of both.
- All extensions should have a facility to register atleast one reminder call from their extensions.
- All extensions with outgoing dialing facility should be able to register atleast 10 memory numbers from their extensions.
- All extensions should have a facility to lock their instruments so as to prevent outgoing calls.
- It should be possible to park upto 6 calls in the system.
- The extensions, both analog and Digital phones, should be able to initiate a 5 arty conference with upto 4 external parties.
- System should also support upto 6 simultaneous 5 party conferences.
- It should be possible to assign internal hotline between extensions.
- It should be possible to have different rings for internal, external and callback.
- It should be possible to change these rings, at site, as per requirement.
- It should be possible to change the dial tone, ringing tone, call waiting tone, conference tone, override tone, etc. as per requirement.
- It should be possible to access each trunk individually by means of individual trunk access codes.
- It should be possible to group the trunk lines into atleast 4 routes. It should be possible to assign more than one code to each route.
- It should be possible to seize the lines of a route in either linear or cyclic mode.
- It should have integrated voice mail & voice message.
- It should be possible to connect the extension ports of another EPABX onto the trunk circuit of your EPABX.
- The system should support both open and closed numbering scheme.
- System should support Silent Calling.

**Digital telephones features:**

- All Digital phones should work on a single pair only
- The Digital phones should have interactive key functionality
- A Digital phone should have an in-built USB port.
- All Digital phones should have an electronic volume control, pitch control and display control

All DSS keys on the Digital phone should have an LED indicator

- The Digital phones should have handsfree operation
- The Digital phones should have a provision for connecting a DSS consoles.
- The high and Digital phones should have an option for connecting an adapter to which another Digital phone can be connected.
- The Digital phone should display the date and time in the idle condition
- It should be possible to activate features from the Digital phone even when in conversation.
- It should be possible to send messages from one Digital phone to another.

It should also be possible to send messages from digital phone to DECT cordless phones and vice versa.

(Signature of the tenderer)
With complete address and seal

Tel. No. :……..

Mobile No.: …….

Place : ……..

Date : …….

# "Price-Bid"
# Schedule of work

| Name of work: EPABX System at R.O. Trivandrum | | | | | |
|---|---|---|---|---|---|
| ***sr.*** | ***Description of item*** | ***Qty.*** | ***Unit*** | ***Rate*** | ***Amount*** |
| ***1.*** | ***SL-1000 KEY TELEPHONE SYSTEM***<br><br>***MAKE: - NEC (Japan)***<br><br>*MODEL: - SL-1000*<br>*Configured for 4 Analog Lines, *48 Digital/ Analog Extensions*expandable upto 72 Ports*<br><br>*Having the following features are inbuilt: -*<br><br>*Caller ID Facility on both Digital/ Analog extension (P&T Calls and Intercom Calls), Account Codes, Dial Blocking, Forced call disconnection, Fax Extension, Long conversation cut off, Internal Paging on KTS, Virtual Extensions, Do Not Disturb, DSS Console Keys, Abbreviated Dialing, Alarm, Barge In, Call Pickup, Hotline, Night Service, Prime Line Selection, DISA/DOSA, Directory Dialing on P&T/ Intercom, Conference Facility (32 Party), Walking Class Of Service, Battery Charger*<br>.<br>*VOIP connectivity,*<br>***Approved brands: Panasonic/NEC*** | ***01*** | | | |
| ***2.a***<br><br>***.b*** | ***Digital Phone 12Keys (K.T.S ) Operator Console***<br><br>***Installation And Commissioning Charge with MDF Box*** | ***01***<br><br>***01*** | | | |
| ***3.a***<br><br>***.b*** | ***Panasonic Telephone TS-60 with CLI display***<br><br>***Beetel Instrument I-55 with CLI Display*** | ***05***<br><br>***15*** | | | |
| ***4 a*** | ***Wiring with 2Pair copper wire 0.5 sq mm FRPVC insulated annealed copper conductor, unarmored telephone cable in existing surface/recessed PVC conduit*** | ***200*** | ***Mtr.*** | | |

| | | | | | |
|---|---|---|---|---|---|
| ***.b*** | ***Wiring 4 Pair copper wire 0.5 sq mm FRPVC insulated annealed copper conductor, unarmored telephone cable in existing surface/recessed PVC conduit***<br>**Approved brands : D-Link, Kalinga, Anchor, Havells, Phenolix** | ***100*** | ***Mtr.*** | | |
| 5. | **S&F metal box of nominal size on surface/recess with phenolic laminated sheet cover i/c ptg. Etc. as required.**<br><br>**75 x 75 x 60 mm** | ***15*** | ***Nos.*** | | |
| ***6.*** | **Supplying and fixing medium class PVC conduit alongwith accessories on surface i/c cutting the wall and making good the same.**<br>**20 mm**<br>**25 mm**<br><br>**Approved brands : AKG, Setia/Polycab/other equivalent ISI Marked** | ***150***<br>***50*** | ***Mtr.***<br>***Mtr.*** | | |
| ***7.*** | **Non-comprehensive AMC charges per year (for next 3 years)** | **% rate of hard ware cost** | L.S. | | |

(Signature of the tenderer)
With complete address and seal

Tel. No. :……..

Mobile No.: …….

Place : ……..

Date : …….

**Terms and Conditions**

1. The work must be executed as per the specifications and best engineering practice.
2. Rates must be quoted both in figures & words.
3. The agency must be an authorised / registered vendor of approved brands.
4. Cutting / overwriting should be avoided. In case of any cutting / overwriting, the same must be initialed / authenticated.
5. Rates are to be quoted on the prescribed format.
6. CBSE reserves the right to deviate the quantity. Any item can be deleted if not required as per site condition. Payment shall be made on the basis of the measurements.
7. ALL T & P shall be arranged by the agency at their own cost.
8. In case of any damage to the structure, the same shall be made good by the agency.
9. The rates quoted must be inclusive of all Taxes.
10. Since the firms are required to give demonstration of the proposed system, Board does not bind itself to accept the Lower-bid or to give any reasons for its decisions.
11. The agency shall be bound to complete the work within 20 days from the issue of the work order.
12. In case of delayed execution a penalty @ 1% per week shall be levied.
13. The agency selected for the work shall deposit a performance guarantee equivalent to 10% of the total value of the work. It can be submitted in the form of the Bank Guarantee.
14. In case of slow progress & the Board put to any financial loss, the CBSE shall invoke the Bank Guarantee.
15. The agency shall submit all the guarantee cards / Brochures to the Engineer-In-Charge.
16. All materials brought to site shall be subjected to the approval of the Engineer-In-Charge. In case of any unapproved material is used, the same shall be removed by the agency at his own expense.
17. Non Comprehensive AMC shall for a period of 3 years shall have to be undertaken by the agency for which separate agreement shall be executed.
18. 10% of the basic value of bill shall be retained as defect liability for a period of six months effective from the date of completion. In case of satisfactory performance, the same shall be refunded without interest.
19. No running payment is permissible however; the final bill would be processed & cleared within 30 days from the date of its submission.
20. The equipments / products installed must be guaranteed for a period of one year from the date of completion.
21. The safety & security of the equipments / products after its installation shall rest with the Board.
22. The complaint if reported shall be got rectified by the agency within 24 hours failing which a penalty @ Rs. 200 / - per day shall be levied.
23. In case of any dispute, the Chairman shall have the right to appoint an Arbitrator whose decision shall be final & binding on both the parties.

(Signature of the tenderer)
With complete address and seal

Tel. No. :……..

Mobile No.: …….

Place : ……..