

## Guru Nanak Dev University, Amritsar

### General Branch

Sub.: Supply, installation, testing and integrated commissioning of EPABX system at GNDU Campus, Amritsar under Buy Back Scheme of old EPABX exchange BPL make fully digital (PCM-TDM) model P-30X.

Dear Sir,

I am to inform you that university intends to get the work done by calling quotations of supplying, installation, testing and integrated commissioning of EPABX Analog Exchange (Model: ALCATEL/SIEMENS/ AVAYA/ERICSSON/ SAMSUNG) at GNDU Campus, Amritsar under buy back scheme [old EPABX exchange BPL make fully digital (PCM-TDM) model P-30X] as per attached specification.

You are, therefore, requested to quote your rates and other terms and conditions in a sealed envelope addressed in the name of Registrar, Guru Nanak Dev University, Amritsar, so as to reach his office **on or before within 20 days of notice upto 4:00 pm.** Quotations may be sent to Registered Post in two sealed envelopes, **one envelop super subscribed as “Technical bid for supply, installation, testing and integrated commissioning of EPABX system at Guru Nanak Dev University, Amritsar and second envelop super subscribed as “Financial bid for supply, installation, testing and integrated commissioning of EPABX system at GNDU Campus, Amritsar”.** Technical specification may be quoted in an envelope for technical bid & rates may be quoted in a envelope for financial bid.

#### **Terms & Conditions:-**

1. The quotation should be accompanied by Demand Draft amounting to 2% of the quoted price in favour of the Registrar, Guru Nanak Dev University, Amritsar as an earnest money.
2. The interested parties may inspect the site at GNDU Campus, Amritsar before quoting the rates. For any further enquiry, they can meet the Deputy Registrar (General), Administration Block on any working day.
3. Taxes/VAT leviable, if any, may be mentioned separately.
4. In case of any dispute, the matter will be referred to the Vice-Chancellor whose decision shall be binding and final.
5. The Vice-Chancellor reserves the right to reject all or any of the quotation without assigning any reason.
6. Material will be accepted strictly in conformity with sample and specifications approved and in accordance with the terms and conditions of the supply order.
7. The decision of the Vice-Chancellor on the recommendations of the committee, in respect of choice of the material will be final.
8. Negotiations may also be held to determine quality of materials, rates and other terms & conditions, if needed.
9. The rates quoted should be for material installed at site.
10. Quotation may be sent under Courier or by Registered post.
11. The rate should be valid atleast for 90 days from the date of opening of the Tender. No increase in the rates shall be allowed in any case after quoting rates by the firm.
12. Old Exchange Model P30X BPL make digital (PCM-TDM) installed in University campus in the year of 1996 (approximate rate at that time Rs. Twelve Lacs).The rate must quote the old exchange under buy back scheme.

## General Branch

### Technical Part

- 1. Scope of work :** Supply, installation, testing and integrated commissioning of EPABX system a GNDU Amritsar, which includes centralized Network management system alongwith operator console, MDF, cables etc.

The vendor shall also provide comprehensive **training** on various operation and maintenance aspects of EPABX system to GNDU representatives/operators (**8 personnel's**). The training shall be conducted at site i.e. in GNDU campus.

**2. Bill of Quantity:**

<b>Sr. No.</b>	<b>Description</b>	<b>Qty Nos.</b>	<b>Make/model</b>
1.	Main EPABX	1	ALCATEL/SIEMENS/ AVAYA/ERICSSION/ SAMSUNG
2	Main Distribution Frame(MDF),	1	-
3	Operator console	3	-
4	UPS System	1	-
5	cables (per meter)	As per requirement	-
6	Rack	1	-

**3. Technical Specifications:**

**Main EPABX System:**

- 800 analog extension circuits extendable up to 1200
- 24 Digital Extension Circuits
- 08 CO circuits
- Digital PCM/TDM switching technology
- Supporting major networking protocols such as FXO, FXS, E&M (8 Channel), E1 & OSIG (PRI/BRI) & IP
- System shall be IP ready and will support VoIP solutions/ as an integral part of the system

- The system should be compatible with DECT/ GAP /WLL like technology
- **User Interface supported:** Digital Sets, Analog Sets, IP phones, DECT Phones
- **Trunk Interface supported:** Analog Trunk lines, ISDN BRI/PRI lines, PCM R2 lines, IP trunks lines (H323/SIP)
- 100% Non-Blocking architecture
- The EPABX should be server based on fully digital PCM, TDM technology, and Stored Program Control (SPC) conforming to latest ITU-T (earlier CCITT) standards
- Supporting optional ISDN BRI (4 Line & 8 Line) and PRSystem running in 230V AC / 48 V.DC
- Power supply having inbuilt battery charger and external terminals to connect with battery bank, On line UPS with 6 hours of battery back up
- Remote Maintenance facility
- Desktop, Network & Application Integration
- Supporting 3 to 8 party conference.
- Auto-Diagnostics facility: System should be able to check Open Circuit/Short Circuit conditions, It should be able to conduct Loop-Around Test, It should be able to conduct Cross-talk Test, It should be able to conduct Dial Tone Test
- Auto attendant feature
- Malicious call trace facility on each and every extension
- Call Forwarding facility to external PSTN/GSM/CDMA nos.
- Direct connectivity to office LAN through 10/100 BaseT Ethernet interface
- The System shall operate on 230V+-10%, 50Hz AC Input.

**MDF with:**

- Krone disconnect modules,
- Integrated Protection Module for all trunks & extensions,
- MDF should be expandable upto 1000 ports

**Operator Console:**

The operator consoles shall have following features (but not limited to)

- PC based Maintenance & Administration Console with branded PC (HCL/HP/IBM) alongwith the printer
- Console with licensed Windows Operating system

- With Busy/Idle Status Indication Display Unit for all extensions equipped in Exchange
- Centralized Electronic Telephone Directory with Dialing facility.
- Number of inbound calls, return calls, call in hold, etc.
- Details about the call queue status, name of the internal called-party, status of the terminal etc.
- Details of calling and called stations
- External line hold.
- Busy override
- Supervision of the user extensions and trunks
- Call Conferencing
- Call waiting, call splitting
- Routing of calls
- A Call accounting application and call billing facility should be implemented in the system.
- The exchange shall provide caller line identification on digital and analog extensions

### **Battery Bank/ UPS with 6 hrs backup**

**Cables:** cable should support voice as well as data transmission(In most of the deptts., of GNDU cable is already laid however additional cables may be required at the time of EPABX installation and as such bidder shall quote per meter rates at the time of bidding).

Transmission delay, attenuation & frequency distortion, non -linear distortion and noise shall be within permissible limits in accordance with CCITT recommendations Q.507 & G 712.

**Rack:** System should be rack mounted.

### **4. Other Technical terms and conditions:**

1. System shall be capable of working as transit switch, local switch, data circuit switch and packet switch in both digital and analog environment.
2. The system should work with any type of public exchange or similar network to which when connected requires no modification. It should also be possible to network with exchanges of different makes / technologies using either E&M lines or ISDN BRI/PRI lines.
3. System should support extensions at a distance of at least 4 km without use of Line Drivers
4. Call Forwarding to P&T Lines and Cell Phones: Quoted System should have the essential feature of Call Forwarding to all kind of numbers.
5. The communication system must support the SIP (Session Initiation Protocol) -Protocol, for subscriber and exchange interfaces.
6. The system shall have Modular Design for expansion/ addition of features as well as hardware.
7. Redundant Controls, all line and trunks cards shall be hot swappable i.e it shall be possible to remove and put back these modules from the system in power on conditions
8. The system should be able to restart automatically without human intervention when the external AC supply is resumed after complete power failure i.e even after the batteries are discharged.
9. The failure of any component /subsystem in the exchange shall not result in the failure of the complete exchange.
10. Music on Hold : To have option to program music of minimum 2 min.
11. Supporting Boss Secretary function

12. **Documents and Drawings:** Vendor shall provide one copy of EPABX System configuration, Operation and maintenance manuals for software and hardware, MDF numbering plan / IDF numbering plan, Internal Layout diagram & Earthing layout
13. System should store all the call records (approx 1,00,000 calls) for a minimum period of one month.
14. Remote Maintenance Facility: Provision for remote maintenance of the exchange from a remotely located operation & maintenance centre should exist in the system.
15. Vendor should be capable of observing system performance and make configuration changes from the remote maintenance centre.
16. Suitable protection shall be provided against induced voltages and currents due to lightning, high voltages line etc. The devices shall provide prompt isolation and protection from accidental high voltage power contact and safe guard the equipment against any damage.
17. The equipment shall be capable of maintaining its guaranteed performance when operating continuously for 24 hrs a day and 365 days a year under the following environmental conditions.
18. Operational temperature — 0°C to 45°C
19. Humidity (RH) — 20% - 90% (Non-condensing)
20. System shall support various phone adapters like ISDN adapter, digital adapter/ analog adapter for connecting additional phones, distance adapter for increasing distance etc.
21. The Bidder should preferably be a Firm/Company/Public Sector Undertaking/Govt. Company incorporated in India and should have at least 3 years experience in implementation of IP EPABX Systems. Certificate to this effect to be enclosed in the bid.
22. The Bidder shall not have been de-listed from business by any Govt. Department/Public Sector during last three years. Self declaration in this regard to be provided.
23. The Bidder should have successfully executed at least three orders of similar or higher level for supply, installation, commissioning and implementation of IP EPABX Systems.
24. Documents to this effect must be enclosed in support of the same.
25. The Bidder should be a certified Reseller of the products offered. A certificate from OEM must be submitted for the same.
26. The bidder should have Qualified Manpower for Implementation & Support of IP EPABX Systems.
27. The bidder should have office within 300Km. from installation site (i.e. Guru Nanak Dev University, Amritsar, Punjab) and should be able to provide support and maintenance for the offered solution.
28. Warranty & AMC

**Note: The certificates/proof/documents sought as above should be submitted along with Technical & Un-priced Commercial Offer as per Procedure for Submission of bids**



**Guru Nanak Dev University, Amritsar  
Short Term Tender Notice**

Sealed tenders are invited for Supply, installation, testing and integrated commissioning of EPABX system (ALCATEL/ SIEMENS/ AVAYA/ ERICSSION/ SAMSUNG make) at GNDU Campus, Amritsar under Buy Back Scheme of old EPABX exchange. Technical & Other terms & conditions can be had from the office of Deputy Registrar (General) or university website [www.gndu.ac.in](http://www.gndu.ac.in). Offers must reach the office of Registrar within 20 days of notice.

**Registrar**

**Short Term Tender Notice for Supply & Installation of New EPBAX Exchange**