



राष्ट्रीय प्रौद्योगिकी संस्थान पुदुच्चेरी

कारैक्काल - 609 609

NATIONAL INSTITUTE OF TECHNOLOGY PUDUCHERRY

Karaikal - 609 609

NOTICE INVITING TENDER

For Supply, Installation & Commissioning of EPABX System

Tender Reference No. : NITPY/ADMIN/EPABX/2016-17/007

Date of Commencement for
Sale of Tender Documents : 09-01-2017

Last date and Time for
Receipt of Tenders : 10-02-2017 upto 03:00 PM

Time and date of opening of
Tenders : 10-02-2017 at 04:00 PM

**INSTRUCTIONS TO TENDERERS
&
CONDITIONS OF CONTRACT**

1. The National Institute of Technology Puducherry, Karaikal an Educational Institution invite tenders for supply & installation of EPABX system in NITPY Campus.

The Tenders should be submitted in two parts in separate covers (Technical Bid & Financial Bid) in following manner:

- (i) Bid containing technical specifications and Earnest Money Deposit.
- (ii) Bid containing financial offer.

The envelopes should be marked as Technical Bid and Financial Bid with reference number and submitted in one cover.

The Technical Bid and Financial Bid will be opened in two stages on different dates. The bid containing technical specifications and Earnest Money deposit will be opened at 1st stage. The Financial Bid of technically qualified bidders will be opened on 2nd stage.

2. Tender must be sent in a properly sealed envelope with tender number and due date subscribed as “**Supply, Installation & Commissioning of EPABX system**” on top of the envelope addressed to **the Registrar, NIT Puducherry, Thiruvettakudy, Karaikal-609609.**
3. **The bidders are requested to visit the Institute before submitting the bid.** The price should be quoted on prescribed price schedule. All corrections must be attested by the tenderer.
4. All the columns of the tender form shall be duly and properly filled in separately. The rates and units shall not be overwritten in the price schedule. The rates shall be quoted both in figures and words. The Tender should be signed by the authorized signatory of the firm.
5. **Eligibility Criteria:**

The firms should have satisfactory completed works as stated below during the last 3 years ending previous day of last date of submission of tenders.

- a) Three similar completed works for each of value not less than Rs. 3.00 lakhs (or)
- b) Two similar completed works for each of value not less than Rs. 6.00 lakhs (or)
- c) One similar completed work for each of value not less than Rs. 9.00 lakhs.

The copy of the work order documents should be enclosed with the technical bid of tender document, failing which the tenderer will be rejected by the technical committee.

6. The bidders shall furnish, as part of his bid, a Earnest money deposit (EMD)/ Bid security for an amount of Rs.20,000/- should be paid through online State Bank Collect mode under the payment category of Administrative Miscellaneous <https://www.onlinesbi.com/prelogin/collecthome.htm>. The EMD or Performance security will bear no interest whatsoever. **The copy of the payment receipt should be enclosed along with the Technical bid of**

tender document, failing which the application will summarily be rejected.

7. EMD exemption is applicable to bidders registered with DGS&D / NSIC. The EMD should remain valid for a period of 45 days beyond the final bid validity period. The tenders without EMD shall be rejected.
8. Unsuccessful Bidder's bid security shall be returned within sixty (60) days after the expiration of the period of the validity of the prescribed by NIT Puducherry or placing of work order to the successful bidder.
9. The price should be quoted on prescribed price schedule. All corrections must be attested by the tenderer. The required delivery period must be mentioned. After the order has been placed, the item must be supplied within the stipulated period or by the period extended by the Institute. In case of late providing of leased line the Institute is entitled to recover as penalty from the tenderer a sum @ 0.5% of the total value of the purchase order per week and the maximum 10% of the total value.
9. The payment will be made after installation of project according to specifications, its installation and good working order. In case the goods are rejected these have to be removed by the supplier at his own cost. The rejected goods must be replaced by the supplier within 15 days of the dispatch of registered notice intimating that the goods have been rejected failing which the order may be cancelled and security forfeited.

Payment Condition:-

- 90% payment on demonstration of satisfactory working and installation of instruments/equipments/components.
 - 10% of the amount will be retained as performance security to be released after two months of expiry of the warranty period or on submission of bank guarantee for equivalent amount valid up to after two months of expiry of the warranty period.
 - All Payments shall be made in Indian Rupees Only and will be subject to provisions of Penalty and Liquidated Damages.
10. No payment will be made in advance for any supplies under this tender. No claim for any duty, not stipulated in tender will be admitted at any stage.
 11. The bidders should not claim any additional cost for installation of Active & Passive components under this tender.
 12. The valid documentary proof of Sales Tax, VAT/Service Tax Registration No. & details of Income Tax registration (PAN) should be submitted along with tender. The taxes must be quoted clearly and separately. If the taxes are not quoted separately, it will be presumed that the rates quoted are inclusive of taxes. The rates quoted should be firm and include all charges. The Form D is not issued by the Institute.
 13. In case of goods controlled by the Government, the tendered rates shall not be higher than the controlled rates.
 14. Standard warrantee of the items should be mentioned in the tender. A list of users where similar equipment has been supplied in the past should be furnished with the tender.
 15. The Institute reserves the right to accept or reject any tender or to cancel the whole bidding process without assigning any reason.
 16. The institute reserves the right to verify/seek confirmation of all original documentary evidence submitted by the venders in support of the tenders, specifications for eligible criteria. In case any information furnished by vender

is found false/incorrect the tender will be rejected. The descriptive literature with full technical data and drawing/photos must be furnished along with the tender.

17. In case of dispute the decision of the Director shall be final. All above conditions will be enforced unless written orders of the Director are obtained relaxing any specific condition in any particular instance.
18. The tender shall remain valid for **90 days** from the date of opening of tender. Fax or conditional tenders shall not be accepted. Tender received beyond the fixed date and time shall not accept.
19. The bidder should have OEM Certified Engineer for the Installation and Commissioning. Engineer details with the certifications need to be attached along with the Tender.
20. The tenderers are required to quote their lowest rates in the very first instance and there shall be no negotiation in purchases. In case only one tender is received or only one tender remains according to specifications of the required goods, negotiations will be carried out.
21. The interested firm may submit the separate sealed envelope for "Technical Bid" and "Financial Bid" to be sealed into the third cover super scribed as **"Supply, Installation & Commissioning of EPABX system"** and addressed to the Registrar, NIT Puducherry, Thiruvettakudy, Karaikal-609609 latest by 03:00 PM on 10.02.2017.

Date:

-Sd/-
Registrar (i/c)

Signature of the Authorized Signatory

Name and Designation

Address

TECHNICAL BID

1	Name of firm	
2	Address of Firm	
3	Registration No.	
4	Name of the authorized signatory	
5	Specimen Signature of the Authorized signatory.	
6	Telephone Number of the authorized signatory and other Technical support contact Number of the firm.	
7	Details of the Government organization/Autonomous body/Higher education Institute of repute. The minimum average annual turnover of the bidder for the last three financial years (2013-14, 2014-15, 2015-16) should be at least Rs. 30 lakhs. Supporting documents must be enclosed.	Year
		2013-14
		2014-15
		2015-16
8	Whether proof/copies of work order on items at S.No. 7 enclose (Yes/No)	
9	EMD Remittance receipt (Online State Bank Collect) Date of Payment	
10	List of copies of documents enclosed.	

Signature of the Authorized Signatory

Name and Designation

Address

PRICE BID
ACTIVE & PASSIVE COMPONENTS OF EPABX SYSTEM

Having examined the tender documents, the receipt of which is hereby duly acknowledged, we offer to supply the goods and services in conformity with the said tender documents at the rates shown below:

S. No	Description	UoM	Qty	Unit Rate	Amount (in INR)	Tax %	Tax (in INR)	Total Amount (in INR)
1	Digital Exchange IP based EPABX system with Operator console (make, model & configuration as specified in the technical bid compliance form) with 3 years (36 months) comprehensive on-site warranty	No	1					
2	Basic Model Telephone instrument	No	60					
3	Caller ID Telephone instrument	No	25					
4	Digital Key Phone	No	5					
5	Telephone Line Tester / Tapper (Lineman Tool Cable Set with Connectors and Joiner.)	No	2					
6	Telephone Krone tool	No	2					
7	Crimping tool for RJ Connector, Testing jack, Multi-meter – each 1 no.	set	1					
8	500+500 pair DB Box	No	1					
9	100+100 pair DB box	No	1					
10	50+50 pair DB Box / Pillar box with water proof	No	1					
11	20 pair DB box	No	5					
12	10 pair DB box	No	6					
13	50 pair DB box	No	1					
14	UPS – 5 KVA with 2 hours backup	No	1					
15	10 pair Krone module	No	120					
16	10 pair 0.5 sq mm telephone wire	Coil	As per Job**					
17	20 pair 0.5 sq mm telephone wire	Coil	As per Job**					

18	2 pair 0.5 sq mm telephone wire	Coil	As per Job**					
19	Installation, Commissioning & training charges (Active & Passive components, Armoured UG Cable & Krone Termination, Numbering and Testing charges for DB work)	Job	1					

Note:

- The price column should be properly filled. In case nothing is mentioned in the columns the price will be considered inclusive of Taxes Duties, packing and forwarding etc.
- ** Actual numbers based on deployment. Actual quantity may vary during installation and the bill is to be raised as per actual installed quantity.

Signature of the Authorized Signatory

Name and Designation

Address

SCHEDULE OF REQUIREMENTS

Active & Passive Components of EPABX System

S.No	Name of the Item	UoM	No. of Qty
1	Digital Exchange IP based EPABX system - 500 port with BRI / PRI ports compatibility	No	1
2	Basic Model Telephone instrument	No	60
3	Caller ID Telephone instrument	No	25
4	Digital Key Phone	No	5
5	Telephone Line Tester / Tapper (Lineman Tool Cable Set with Connectors and Joiner.)	No	2
6	Telephone Krone tool	No	2
7	Crimping tool for RJ Connector, Testing jack, Disconnection plug, Multi-meter	Set	1
8	500+500 pair DB Box	No	1
9	100+100 pair DB box	No	1
10	50+50 pair DB Box / Pillar box with water proof	No	1
11	20 pair DB box	No	5
12	10 pair DB box	No	6
13	50 pair DB box	No	1
14	UPS – 5 KVA with 2 hrs backup	No	1
15	10 pair Krone module	No	120
16	10 pair 0.5 sq mm telephone wire	Coil	As per Job**
17	20 pair 0.5 sq mm telephone wire	Coil	As per Job**
18	2 pair 0.5 sq mm telephone wire	Coil	As per Job**

Note:-

- ** Actual numbers based on deployment. Actual quantity may vary during installation and the bill is to be raised as per actual installed quantity.
- Quantities in above table are provided for calculating L1 bidder.
- Where so ever compliance is not being done and alternative mechanism is available with the bidder to fulfill the functional requirements, alternate solution may be provided.

Technical Specifications for Supply, Installation & Commissioning of EPABX System

1. Scope :

The scope of work shall be supply, installation, testing and integrated commissioning of Digital ISDN compatible EPABX system (main) at ground floor of Science Block building with existing Armoured UG cable connectivity to the Guest House, Director Qtrs, Professor Qtrs, Security office, Girls & Boys Hostel buildings, required MDF/IDF, interconnecting cables and termination of internal/external cables to MDF/IDF.

2. System Design Requirements:-

- a) EPABX system shall be designed to use intercom, direct line, ISDN with today's state of art technology, capable of supporting analogue, digital PC based with suitable client software. The offered system shall be the OEM's latest model available with the latest operating system software release. The system shall have capacity to expandable upto 512 ports (min.) in future.
- b) The operating system of EPABX shall be Linux based with hardened to avoid any virus attacks.
- c) For easy integration / interoperability with third party applications the offered system shall have open standards for its operating system, call processing, signaling & networking. There shall not be any proprietary/vendor's specific protocols in operating system, call processing, signaling & networking.
- d) The system shall be equipped with minimum 1 GB RAM and 80 GB HDD.
- e) The EPABX system shall be provided with back-up power for 8 hrs run. Main system shall have the call billing software to get details of calls made by each extension through EPABX and other features. Other required software packages for operating and maintaining the system shall be provided.
- f) Double dedicated earthing shall be provided for the EPABX equipment, power supply unit and MDF/IDF.
- g) The system shall be modular in design and shall be based on standard protocols.
- h) The equipment shall be capable of maintaining its guaranteed performance when operating continuously for 24 hrs a day and 365 days a year.
- i) The EPABX system shall be compatible with the public switched telephone network of BSNL/other companies (service provider) and shall be approved from TEC/DOT for the specified configuration.
- j) The system shall have the flexibility and upgradeability features without replacing major equipment elements.
- k) The architecture of the EPABX shall be capable of seamless migration to its maximum capacity by simply adding peripheral cards on the same set of cards and CPU without compromising function/features of the system.
- l) EPABX shall have true hot standby duplicated CPU, common control cards & Power supply and it shall be designed to meet latest technology with all advanced features and expandability provision.

- m) The OS of the EPABX shall be Linux based and protected against loss/alteration of memory due to power failure/unauthorized command or due to any other faulty condition.
- n) System shall have integrated DECT connectivity.
- o) System shall support ADSL connectivity.

3. Standards :

- System shall be designed as per relevant international standards/ equivalent applicable Indian standards and safety measures - IEC complaint, TEC, CCITT, ITU complaint.
- The valid TEC/DoT approval for make and offered model should be submitted along with the offer for EPABX system, DID facility, ISDN PRI/BRI etc.

4. Telephone Sets

The bidder must describe the make & model no of telephone sets (Analog set, Digital set) to be used with the system. The proposed solution must support a variety of telephone instruments, requiring no more than single twisted-pair wiring. The Bidder should enclose their recommendations with the documents.

The system should have the following basic telephone features:

Digital set:-

- Adjustable handset volume
- Caller name display
- Distinctive ringing according to hierarchical level
- Fixed function keys
- Duplex hands-free
- Multi-line: multi-appearance and multi-numbers
- Multi-line selective forwarding
- Message waiting indication
- Calling line identification presentation/restriction (CLIP/CLIR)
- Minimum 6 party conference call
- Storage of unanswered calls with date, time, and callback

Analog Set:-

- Pulse/Tone sustainable.
- Modular connection plugs for line & handsets.
- Electronic ringer with adjustable volume & melodies ring.
- Flash, Pause, redial, mute function.
- Desktop Model.
- Message Wait Lamp.
- Line Cord – detachable – 2 Metre long.
- Handset – Cord – detachable.
- Termination Box.
- Hook switch endurance.
- With CLI P

Call Metering Application:

- A Call accounting application should be implemented in the system.
- System should store all the call records (approx 50,000 calls) for a minimum period of one month.

5. Exchange Earthing

The EPABX system & its accessories shall be grounded to a common ground point to prevent interference from the external & internal sources. Earthing electrode shall be as per the relevant applicable standard/B.S.3043 (latest) for EPABX MDF/IDF and batteries. The earthing material shall be as per the applicable IS/Internationally applicable standards. Required earth pits for earthing shall be made by bidder for EPABX system, power supply unit and MDF / IDF. Earthing shall be done as per the ITU recommendation.

6. MDF/IDF

Suitable MDF/IDF shall be provided for termination of the extension, trunk lines. The MDF/IDF shall be housed in self standing/wall type metal frame. The termination strips shall be disconnection type provided with isolation facility. 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.

7. UPS – 5 KVA

UPS with SMF batteries to provide backup of 2 hours for the main EPABX system.

8. Site Acceptance:

All the system configuration checks/tests to demonstrate the various components, sub-assemblies of hardware and software shall be carried out to check/test that system complies with the specification.

9. Installation and commissioning

The installation and commissioning of complete system including laying and termination of cables shall be in the scope of bidder. All routine testing and operation of the system shall be carried out by the bidder at site. Installation shall be done as per the applicable relevant standard. All the required commissioning spares and consumables shall be in the bidder's scope.

10. Training

The vendor shall provide comprehensive training on various operation and maintenance aspects of EPABX system to the in-charges. The training shall be conducted at supplier's works / at site (Bidder to include training charges, if applicable).

11. Tools & Tackles

Supply of all the Special tools / tackles like Krone tool, Crimping tool for RJ Connector, Testing jack, Disconnection plug, Multi-meter and Telephone tapper handset shall be in the scope of the bidder.

ANNEXURE – I

Specifications of EPABX System: 1 no.

S. No	Description	NITPY's Specifications	Suppliers matching Specification
1	Quantity	EPABX System with rack mountable with below mentioned specifications – 1 no.	
2	Make & Model	Make of the EPABX System should be specified	
3	EPABX System Features	<p>IP PBX system communication server based on PCM/TDM with following features:</p> <p>Main EPABX 500 Analog Extension 50 Digital Extension 30 P&T Lines 2 ISDN PRI Line 8 BRI Ports System shall have universal ports</p> <p>Two PC based console (a) 15 party conference (b) Networking Features (c) Built in ACD identification (d) Least Cost Routing (f) CSTA/TPI open standard (g) VoIP (h) Inbuilt IP Card (i) inbuilt ASMDR (j) inbuilt DIP and DOP (k) Inbuilt AIP and AOP</p> <p>Interface options are 1.SLT -Single Line Telephones 2.DKP-Digital Key Phone 3.DSS Operator console 4.IP phone SIP based 5.TWT analog co line 6.ISDN BRI (TE/NT) 7.T1/E1 ISDN PRI(TE/NT) 8.MOBILE GSM 3G 9.VOIP TRUNK 10.E&M LINE 11.MAGNETO PHONE 12.VOICE MAIL system</p> <p>Equipped for hardware: 1) Analog Trunks – 8 2) Digital Extension – 16 3) Analog Extension – 128 4) PRI (30 CHANNEL) – 2 nos. 5) STANDBY CONTROL CARDS 6) Main System TDM/ User Software &License:</p>	
4	BRI PORTS	ISDN BRI NETWORK OR COMPATIBLE DEVICES – 32 nos. Maximum	
5	T1/E1/PRI PORTS	T1/E1/ISDN PRI NETWORK OR COMPATIBLE DEVICES – 8 nos. Maximum	

6	Redundancy	Hot Standby, Hot Swappable, Duplicated control cards and duplicated power supply unit. No single point of failure and no dropping of established calls even during changeover of duplicated cards	
7	Call Billing Software	Shall be provided.	
8	Power Supply Input	100-240 VOLT AC 47-63 HZ	
9	Power Consumption	100 W or equivalent	
10	Physical Dimensions	Specify in mm (l x b x h)	
11	Warranty	3 years comprehensive on-site warranty with On-Site Service & Support for both Parts and Labour	
12	Other Features	Specify, if Any.	

Specifications of Basic Analog handset: 60 nos.

S. No	Description	NITPY's Specifications	Suppliers matching Specification
1	Quantity	Analog handset with below mentioned specifications – 60 Nos.	
2	Make & Model	Make of the Analog handset should be specified	
3	Analog Handset Features	<ul style="list-style-type: none"> • Pulse/Tone sustainable. • Modular connection plugs for line & handsets. • Electronic ringer with adjustable volume & melodies ring. • Flash, Pause, redial, mute function. • Desktop Model. • Message Wait Lamp. • Line Cord – detachable – 2 meter long. • Handset Cord – detachable. • Termination Box. • Hook switch endurance. • With CLI P 	
4	Physical Dimensions	Specify in mm (l x b x h)	
5	Warranty	3 years comprehensive on-site warranty with On-Site Service & Support for both Parts and Labour	

Specifications of Analog (Caller ID) handset: 25 nos.

S. No	Description	NITPY's Specifications	Suppliers matching Specification
1	Quantity	Analog handset with below mentioned specifications or equivalent – 25 Nos.	
2	Make & Model	Make of the Analog handset should be specified	
3	Analog Handset Features	<ul style="list-style-type: none"> • Caller ID display • Pulse/Tone sustainable. • Modular connection plugs for line & handsets. • Electronic ringer with adjustable volume & melodies ring. • Flash, Pause, redial, mute function. • Desktop Model. • Message Wait Lamp. • Line Cord – detachable – 2 Meter long. • Handset – Cord – detachable. • Termination Box. • Hook switch endurance. • With CLIP 	
4	Physical Dimensions	Specify in mm (l x b x h)	
5	Warranty	3 years comprehensive on-site warranty with On-Site Service & Support for both Parts and Labour	

Specifications of Digital handset : 5 nos.

S. No	Description	NITPY's Specifications	Suppliers matching Specification
1	Quantity	Digital handset with below mentioned specifications – 5 Nos.	
2	Make & Model	Make of the Digital handset should be specified	
3	Analog Handset Features	<ul style="list-style-type: none"> • Adjustable handset volume • Caller name display • Distinctive ringing according to hierarchical level • Fixed function keys • Duplex hands-free • Multi-line: multi-appearance and multi-numbers • Multi-line selective forwarding • Message waiting indication • Calling line identification presentation/restriction (CLIP/CLIR) • Minimum 6 party conference call • Storage of unanswered calls with date, time, and callback 	
4	Physical Dimensions	Specify in mm (l x b x h)	
5	Warranty	3 years comprehensive on-site warranty with On-Site Service & Support for both Parts and Labour	

Specifications of UPS (5 KVA): 1 no.

S. No	Description	NITPY's Specifications	Suppliers matching Specification
1	Quantity	UPS – 5 KVA with 2 hrs backup with below mentioned specifications – 1 No.	
2	Make & Model	Make of the UPS should be specified	
3	Input	Single Phase Input Voltage Range : 140-240 VAC Frequency : 50 Hz \pm 6%	
4	Output	Single Phase Output Voltage (Batt. Mode) : 230 VAC \pm 10% Frequency : 50 Hz \pm 1% Waveform : Quasi Sine Wave	
5	Battery Backup	Upto 2 hrs Minimum with external Battery	
6	Indicator	LED/LCD: Mains On, Mains Fail, Battery Low, Fault Overload AUDIBLE ALARM: Battery Discharge Mains Fail, Battery Low, Overload, built-in maintenance bypass, built-in static bypass, emergency power off.	
7	Environmental	Operating Environment: 32 deg F - 104 deg F at full load, 0-90% Relative Humidity Non-Condensing Noise Level: Less than 45 db	
8	Physical Dimensions	Specify in mm (l x b x h)	
9	Warranty	3 years comprehensive on-site warranty with On-Site Service & Support for both Parts and Labour	
10	Other Features	If Any.	

Signature of the Authorized Signatory

Name and Designation

Address

LIST OF RECOMMENDED VENDORS

S. No	Items	Approved Makes
1	EPABX SYSTEM - PC BASED OPERATOR CONSOLE	SIEMENS / MATRIX / PANASONIC / NEC UNIVERGE
2	ANALOG PHONE	SIEMENS/ PANASONIC/ NORTEL / BEETEL
3	DIGITAL PHONE	SIEMENS/ PANASONIC /NORTEL/BEETEL
4	UPS – 5 KVA	APC / NUMERIC / HYKON / CONSUL
5	BATTERIES	EXIDE/ PANASONIC / AMARON QUANTA
6	MDF/IDF, TAG BLOCKs	KRONE
7	TELEPHONE WIRES/ DATA CABLE	FINOLEX/ DELTONC/ SKYSTONE/ HAVELLS

NITPY's COPY (To be filled in and submitted by the bidder)

CHECKLIST TO BE FILLED IN BY BIDDER (Please make sure that these pages are filled and send duly signed)	
List of documents to be enclosed	Completed & Signed
Terms and Conditions form	YES / NO
Details of the Firm offering this Quote	YES / NO
NITPY's quotation form (Technical bid with EMD Receipt copy & Price Bid form)	YES / NO
Other technical specifications & pamphlets (in a separate sealed cover)	YES / NO

NAME OF THE SUPPLIER

ADDRESS

SIGNATURE WITH DATE