



**CHENNAI PORT TRUST**

**BUDGETARY OFFER FOR REPLACEMENT OF EXISTING BPL MAKE DKX 40 MODEL TELEPHONE EXCHANGE WITH NEW IP EPABX SYSTEM WITH REQUIRED SOFTWARE AND DIGITAL PHONES UNDER BUY BACK SCHEME OF OLD TELEPHONE EXCHANGE ALONG WITH SIX YEARS COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR THE USE OF CHAIRMAN, DEPUTY CHAIRMAN AND THEIR OFFICES AT CHENNAI PORT TRUST .THE OFFER MAY BE SENT TO THE FOLLOWING ADDRESS ON OR BEFORE 22.03.2017**

The Chief Mechanical Engineer  
No.1 Rajaji Salai  
Chennai Port Trust  
Chennai 600 001.

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**SCHEDULE – “A”**  
**TECHNICAL SPECIFICATION**

**1.0 GENERAL:**

The Trust proposes to replace the existing B P L M a k e D K X - 4 0 model Telephone exchange with new IP EPABX system with required software and Digital instruments under Buy Back Scheme of the old BPL make Exchange and digital phones presently working along with Comprehensive Annual Maintenance Contract for Six years for all the components supplied at Chennai Port Trust under two cover system.

**2.0 SCOPE OF WORK:**

**(a) WORKS INCLUDED:**

(1) Supply, installation and commissioning of one number IP EPABX system having a maximum of 32 ports necessary hardware and software for accepting a maximum of 8 numbers BSNL lines/ Port IP Telephone Exchange lines as Trunks, 16 numbers Digital Ports, 16 number Digital Phones and one number Power back up unit.

(2) Shall buy back and Remove the existing working BPL make DKX 40 model EPABX system along with its accessories and Digital Phones.

(3) Shall furnish their offer for Six years Comprehensive Annual Maintenance Contract for all the items supplied.

Note: Offers without Quote for AMC & Buy Back Charges will be considered as incomplete and will not be considered for further evaluation purposes.

(4) The offer shall include all charges to be paid towards up gradation of Software for all the components supplied. Trust will not pay charges towards any Software up gradation till the end of the seven years contract period.

**(b) WORKS NOT INCLUDED:**

(1) Provision of 230 volts AC supply.

(2) Wiring to individual extensions and instruments.

(3) Providing connections in the new MDF for the field side lines.

### **3.0 DETAILED TECHNICAL REQUIREMENTS :**

The new IP EPABX system will replace the existing BPL make DKX 40 Exchange. The system shall have the following main features.

One number 32 ports capacity wall mounting type IP EPABX SYSTEM complete with all components housed in a elegant cubicle shall be installed in the Ninth Floor of the Centenary Building and shall consist of the following Hardware and Necessary Software:

- a) Shall Supply, Install and commission one number 32 Port IP EPABX Exchange having both Hardware and Software enabled for connecting 8 numbers BSNL/Port IP EPABX lines as Trunks and 16 numbers Digital Extensions Ports.
- b) Supply, Install and commission of 16 numbers two wire type Digital Key Telephone units.
- c) Supply, installation and commissioning of dedicated, 5KVA (min.) capacity "APC" make uninterrupted Power Supply unit having continuous Power Back up for FOUR hours Un-interrupted in the event of any input AC power failure. The units shall be supplied along with necessary required numbers of Totally Sealed Maintenance Free batteries.
- d) Supply installation and commissioning of krone type MDF and Back panel with protections like GD tubes and fuses for High voltage and High Current for all individual extensions.
- e) All the components shall be housed in a suitably designed enclosure and well protected from Dust Ingress.

### **4.0 DETAILED TECHNICAL SPECIFICATION FOR EPABX SYSTEMS.**

#### **4.1 GENERAL**

- a) The IP EPABX system shall be PCM/TDM based stored program control, having facility to connect Digital Telephones.
- b) The System shall ensure a very high degree of availability .
- c) Flexibility of making modification in class of service shall be provided.
- d) The points for connecting supplies, the power supply to the different plug-in cards shall be standardized & mechanically interchangeable to prevent damage due to accidental interchange of cards.
- e) Sub-assemblies & printed cards in the equipment shall be suitably marked Identification of a type of card in its connector shall be possible without necessitating its removal. Any plug-in component shall be marked with sufficient information for its complete identification.

- f) All instructions labels or any other marking on the equipment shall be perfectly legible.
- g) Connecting cables between jacks shall be marked in their extremities with identical designation as on the fixed connecting flanges.
- h) Fuses used shall have a suitable marking for the different rating to enable easy identification and replacement.

#### **4.2. SYSTEM FEATURES**

- a) The EPABX System shall be IP Based, PCM/TDM and **fully Non Blocking Type**. The System be a latest model , fully Digital and shall have following features.
- b) Tone and Ringing: The System shall provide the standard tones and ringing current as in the Public Telephone Network.
- c) Shall have Voice Guidance feature (card) with necessary software to announce Busy, Auto Call Back feature, Call Forwarding etc.,
- d) Extension-to-Extension Dialing: It shall be possible to establish internal calls automatically by the press of the dedicated DSS key.
- e) Direct Outward Dialing: The Exchange shall establish calls automatically when numbers are dialed from the phone (or) through abbreviated dialing code
- f) Class Of Service: It shall be possible to allow an extension control over the telephone usage by providing suitable class of service.
- g) System should have provision for Automatic Last Number Redial.
- h) Universal Port Configuration: All ports of the System should be identical to facilitate flexible configuration of the System as per user needs.
- i) Programmable Class of Service. The System should support programmable class of service as per need.
- j) Calling Line Identification (CLIP): This enable the incoming calling Number to be displayed on the Digital Phone.

#### **4.3. EXTENSION FEATURES**

- a) Automatic Call Back: Facility shall exist for an extension user on encountering a busy signal on a called extension, to invoke the automatic call back feature by dialing a code before hanging up. When both the calling and called parties are free, the call should be automatically put through on no-answer the call may be disconnected after a specified period.

b) Call Forwarding: An extension with this class of service shall be able to transfer all incoming calls, temporarily to another pre-selected extension. Such requests shall be registered by dialing a code followed by the extension no. Facility shall also exist for cancellation of a request registered earlier.

c) Consultation Hold: An extension engaged on an external call (incoming or outgoing) shall be able to hold the call while making internal call for private consultation. The external subscriber shall not overhear such consultation. There must be facility of music during hold condition.

d) Automatic Call Transfer: It shall be possible for an extension user to transfer incoming calls to another extension with or without help of the attendant.

e) Auto Call Disconnection: The system should facilitate to fix the time of call beyond which it will be automatically disconnected.

f) Caller Line Indication: All the extension shall have the CLI facility. The Telephone unit shall display the Caller Line number

#### **4.4. SERVICE OBJECTIVES:**

Following service objectives shall be met:

i) The system shall provide access to all the extension and Trunks on fully non-blocking basis.

ii) The equipment design shall be such that any special case and precaution on the part of maintenance personnel are kept to an absolute min. And no preventive maintenance is required.

iii) The System shall have inherent capability to monitor its own performance and to detect, analyze and locate faults.

iv) Fault repair at site should normally consist of only replacing the faulty card or plug-in modules.

#### **5.0) OTHER REQUIREMENTS:**

i) **CABLING:** shall supply necessary cables and carryout wiring/cabling work as given below. The cable lengths given below are approximate only. However the bidder shall ensure that necessary lengths of cables are supplied and laid as per the requirements at site. Between exchange and MDF (minimum 5 meters), Between UPS and exchange (minimum 5 meters) & Between UPS and power supply point (minimum 5 meters).

ii) **ENVIRONMENTAL CONDITION:** The Entire system shall be housed in a suitable enclosure for working in adverse environmental conditions prevailing in port area where air is always laden with minute fine particles of Iron ore, Coal and other chemical dust. The system offered shall withstand the saline and very high humid atmosphere.

iii) **The system shall be capable of working in a suitably ventilated Non-air- conditioned environment.** System design shall be immune to noise from various sources like power supplies, lighting system etc.

iv) **PROTECTIONS:** The entire system shall be protected from Over and under Voltage Protections. All the Equipments shall be housed in proper racks and well Protected from dust ingress.

**The scope of work also includes connection of the new system with the existing earthing system.**

#### **6.0) TELEPHONE INSTRUMENT:**

**The scope of work also includes supply of 16 numbers two wire type Digital Key Type Telephones of good quality with elegant look. The instrument shall have following main features**

- 1) Call indicator.
- 2) Incoming & outgoing call history
- 3) Check /Edit speed dial.
- 4) Volume control.
- 5) Abbreviated dialing
- 6) Caller Line Indication(CLIP).
- 7) Shall have minimum 16 numbers dedicated DSS keys for calling other extensions.

Note: 1) The units should work with the existing two wire system (telephone cables) connected between the Exchange and the Digital Phones. If the bidder requires any modification in the existing cable system, the same has to be included in his scope by including all the required materials and Labour for all the extensions.

2) Successful contractor shall supply one number sample of the instrument for approval by Trust Engineer .Full supply shall be effected only after getting approval from the Trust Engineer.

#### **7.0) UNINTERRUPTED POWER SUPPLY SYSTEM: 1 No.(APC MAKE)**

The scope of work also includes supply, installation and commissioning **“APC make”** 5 KVA (min) Uninterrupted Power supply unit. The system shall provide back up power for 4 hours at the rated output in case of mains supply failure .The systems shall be provided with suitable rated **“EXIDE”/AMARON** sealed maintenance free Batteries.

#### **8.0) Supply of Emergency Spares:**

The system shall be supplied with following emergency spares to be used during Breakdown.

- a) One set of Control cards
- b) One set of Power Supply Card.

## **9.0 BUY BACK OF THE EXISTING BPL make DKK 40 EXCHANGE.**

- 1) Shall buy back and Remove the existing BPL make DKK 40 along with their accessories.
- 2) If required, the bidder shall inspect the Old Telephone exchange presently working in Trust before furnishing their offer.
- 3) Offers without Buy Back cost of the existing Exchange will be considered as incomplete and will not be taken up for further evaluation.
- 4) The Buy Back cost offered will be subtracted from the Grand Total offered.
- 5) The tenderer shall furnish the Buy Back Cost in the Trust format provided for it. The system will be dismantled and removed only after successful completion of the IP PABX.
- 6) The scope of work includes removal of the Old Exchange and its associated equipments .

Note: Trust will permit the successful contractor for taking out old system under buy back, out of Trust premises, only after the successful commissioning of the new system completely.

## **10.0) INSTALLATION AND COMMISSIONING:**

All the components/equipments supplied by the Tenderer shall be installed, tested, commissioned and handed over by using necessary instruments and tools which are to be supplied by the contractor as per the directions of the Trust officials at different locations at free of cost. The special tools instruments needed for regular servicing / maintenance working shall be supplied free of cost by the contractor. All the materials required for the installation and commissioning at site including any material required for civil works required while Installation and commissioning shall be supplied by the Contractor. The installation and commissioning shall be done on the days as per the instruction of the Trust Engineer.

## **11.0) GUARANTEE PERIOD:**

All the components supplied vide this tender shall be guaranteed for a minimum period of twelve months from the date of acceptance of the work by Trust.

## **12.0) COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT:**

The successful Tenderer after completion of the One year Guarantee period will enter into SIX years Comprehensive Annual Maintenance Contract with Trust which will include supply of all spares for the replacement.

The CAMC covers for all the equipments supplied vide this tender including UPS, Phones etc. except Batteries.

**a) SCOPE OF WORK :**

The successful bidder, after completion of one year Guarantee shall under the CAMC for a period of 6 years. On receipt of Trust call, the contractor shall report to site immediately and attend the Break down and commission the Exchanges and other equipments with the necessary required spares. The Contractor shall maintain all the equipments supplied trouble-free vide their tender during the 6 years CAMC Period.

**b) CONTRACT PERIOD:**

The Comprehensive AMC order will be issued after successful completion of the One year guarantee period.

Based on the performance of the First year Annual maintenance Contract, the AMC order will be renewed every year till Six years as per the price quoted by the Tenderer.

**c) TERMS OF PAYMENT:**

On satisfactory completion of monthly servicing and on certification by the Trust's Engineer, Quarterly payment will be recommended on pro-rata basis on production of pre-receipted bill in the Trust format.

Income tax @ 2% with applicable surcharge & education cess shall be levied U/S 194(c) of Income Tax Act, 1961. Similarly, Tamil Nadu Value Added Tax under Section 13 of T.N. VAT Act, 2006 shall also be levied. In case of exemption from the above levy necessary non-deduction certificate shall be produced by the Tenderer from Income Tax/Commercial Tax Office respectively.

The Tenderer shall quote the Bank Account details for the payment through ECS along with PAN and MICR No. A copy of front page of PAN shall also be produced.

The payment will be made within 30 days from the date of production of bill after satisfactory completion of work.

**d) SECURITY DEPOSIT FOR AMC:**

The Security deposit paid for the subject tender (i.e. for the supply of system) by the successful Tenderer will be retained as Security Deposit for the Comprehensive Annual maintenance contract for a period of Six years and the same will be refunded after successful completion of 6 years AMC period.



**e) AGREEMENT/UNDERTAKING FOR COMPREHENSIVE AMC:**

The tenderer shall execute an agreement/undertaking with Trust for the AMC. An agreement/undertaking in the Trust's prescribed format will be sent to the successful Bidder for execution.

**f) PENALTY CLAUSE (FOR AMC)**

- i) 70% of the contract value pertains towards the cost of spare parts for the maintenance of the IP EPABX and the balance 30% is for the labour cost. Hence if the minimum servicing once in a month is not carried out, 30% of the contract value for the respective month will be deducted from the bill towards the labour cost alone.
- ii) Breakdown calls shall be attended by the firm within 24 hours from the time of receipt of breakdown message from the Trust. In case the firm is not responding to Trust's urgent calls, ½% of the total contract value per week (a week is defined as 7 days inclusive of holidays) or part thereof subject to a maximum of 10% of the total AMC contract value for the quarter will be deducted from the firm's bill.
- iii) Advance information of at least 24 hours shall be given by the firm before undertaking maintenance and servicing works periodically.

**13.0) METHODOLOGY OF EVALUATION:**

**The price quoted under item I together with the Net Present Value (NPV) of item II will be taken for arriving the order of merit. The buy back cost offered will be subtracted from the total cost of equipment (Item No.I)**

**14.0) OTHER CONDITIONS:**

- a) The technical specification – “Schedule-A” and Price Schedule – A1” to read in conjunction to make sure of the supply and works involved and Technical Compliance Chart should be furnished in the enclosed Trust format.
- b) The firms are required to offer rates as per Trust's format “Schedule-A1” without fail.
- c) The Chief Mechanical Engineer has the right to accept or delete any of the items mentioned in Schedule ‘A’ and Schedule ‘A1’. The quantity mentioned is only provisional and it may either increase or decrease at the discretion of the Chief Mechanical Engineer.
- d) The work shall be completed within **45 days** from the date of Handing over of site without disturbing the existing communication.

e) The Bidder or authorized dealer of the bidder shall have Service Centre at Chennai and shall enclose the address of the service centre at Chennai along with a proof for the address and same shall be furnished at the time of tendering.

f) The Budgetary offer shall be submitted along with a copy of their VAT and Service Tax Registration Certificates. The offers without these copies will not be considered for further evaluation.

g) For further details, the Tenderer shall contact the Executive Engineer (Electronics & Communication) at 4th floor of Old Administrative Office Annex Building, Rajaji Salai, Chennai Port Trust, Opp. Reserve Bank of India, Chennai – 600 001. Phone No.25312708

**CHIEF MECHANICAL ENGINEER**

**BUDGETARY OFFER FOR REPLACEMENT OF EXISTING BPL MAKE DKX 40 MODEL TELEPHONE EXCHANGE WITH NEW IP EPABX SYSTEM WITH REQUIRED SOFTWARE AND DIGITAL PHONES UNDER BUY BACK SCHEME OF OLD TELEPHONE EXCHANGE ALONG WITH SIX YEARS COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR THE USE OF CHAIRMAN, DEPUTY CHAIRMAN AND THEIR OFFICES AT CHENNAI PORT TRUST.**

**ITEM No. I: "SCHEDULE A1"**

<b>Sl. No.</b>	<b>Description of Work</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate/Unit Rs.</b>	<b>Total Amount Rs.</b>
1.	Supply of 1No. 32 port Main IP EPABX system having necessary Hardware and Software for connecting 8 numbers BSNL/Port IP EPABX lines complete with all accessories, Krone MDF unit with fuses and GD tubes, as detailed in schedule "A"	1	Set		
1A	VAT @ .....% for the item no. (1)	LUMPSUM			
1B	Charges for Installation and commissioning for the item No. (1) as detailed in schedule "A".	LUMPSUM			
1C	Service Tax @----- % for item no. 1(B)	LUMPSUM			
2	<b>Charges for Supply of Digital Phones as detailed in schedule "A"</b>	16	Nos		
2A	VAT @ .....% for the item no. (2)	LUMPSUM			
2B	Charges for Installation and commissioning for the item no. (2) as detailed in schedule "A".	LUMPSUM			

2C	Service Tax @-----% for item no.2(B)	LUMPSUM			
3	<b>Charges for supply of 5 KVA UPS Power supply back up unit for the system along with Batteries as detailed in schedule "A".</b>	1	No.		
3A	VAT @ ..... % for the item no. (3)	LUMPSUM			
3B	Charges for Installation and commissioning for the item no. (3) as detailed in schedule "A".	LUMPSUM			
3C	Service Tax @-----% for item no. 3(B)	LUMPSUM			
				Total 1 in Rs. =	
4	<b>Value considering towards Buy Back cost for the BPL make DKX 40 complete with all accessories as detailed in schedule "A".</b>	1	Set		
4A	VAT @ %	1	Set		
				TOTAL 2 in Rs. =	
				TOTAL in Rs.(Total 1 -Total 2) =	
				Grand Total in Rs.=	

(Rs.

Only inclusive of all Taxes and

Duties)

**Date:  
Signature and Seal.**

**Tenderer's**

**ITEM No.II**

**COST FOR SIX YEAR COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR ALL THE EQUIPMENTS SUPPLIED INCLUDING UPS, DIGITAL PHONES IN THE TENDER AFTER COMPLETION OF ONE YEAR GUARANTEE PERIOD**

Sl.No.	Description of Work	Cost for the Comprehensi
Comprehensive Annual Maintenance Contract after completion of ONE year guarantee period as per Schedule"A"		
1	I year CAMC Charges as mentioned in the Trust Specification.	
	Service Tax @ .....%	
2	II year CAMC Charges as mentioned in the Trust Specification.	
	Service Tax @ .....%	
3	III year CAMC Charges as mentioned in the Trust Specification.	
	Service Tax @ .....%	
4	IV Year CAMC Charges as mentioned in the Trust Specification.	
	Service Tax @ .....%	
5	V year CAMC Charges as mentioned in the Trust Specification.	
	Service Tax @ .....%	
6	VI year CAMC Charges as mentioned in the Trust Specification.	
	Service Tax @ .....%	
<b>7.</b>	<b>Total (for 6 years) inclusive of all taxes and duties in Rs.</b>	

**Note:** 1) Service Tax and other relevant taxes as per the applicable rates on the date of Tender shall be quoted separately. It should not be stated that the rate is inclusive of taxes.

- 2) All prices shall be firm with all taxes and duties which shall be quoted separately. The Trust does not bind itself to accept claims for any extra payment.
- 3) If any of the statutory levies is required other than the one mentioned above, the same may be indicated separately along with the rate at which it is charged.
- 4) Offers without quote for the Annual Maintenance Contract will not be considered for further evaluation.
- 5) Tenderers who quote without 6 years AMC after the completion of one year guarantee period will not be considered for evaluation.
- 6) The total cost under item No.1 and Net Present Value (NPV) at the rate of 10% of item No. II shall be adopted for the evaluation purpose for arriving the order of merit.

**Date:**

**Tenderer's Signature and Seal.**