



Office of The
Executive Engineer (E)
Nirman Building,
Room no.210.
New Kandla, Kachchh
Tel : 02836 270488
Fax: 02836 270184
www.kandlaport.gov.in

No.: EL/WK/2883

Date: 05/07/2025

EXPRESSION OF INTEREST

To,

_____.

Sub: "Supply, Installation, testing and Commissioning Public Address Solution System at Deendayal Port Authority".

Sir,

You are requested to submit Expression of Interest for "Supply, Installation, testing and Commissioning Public Address Solution System.at Deendayal Port Authority." as per Schedule-B, Scope of Work and Terms & Conditions.

The Expression of Interest should reach to this office on or before 18/07/2025 or soft copy of EOI also acceptable through e-mail ID. dipak.hazra@deendayalport.gov.in

Yours faithfully

Executive Engineer (E)
Deendayal Port Authority

(PART –I)**Schedule-B**

Sr. No.	Description	Unit	Qty.	Rate per Unit	Total Amount
1	Supply of the Paging Microphone suitable to work with the existing Network as per Technical Specification.1	No.	3		
2	Supply of the Licensed Software as per Technical Specification No. 2	No.	1		
3	Supply of the Emergency Intercom Panel as per Technical Specification No.3	No.	9		
4	Supply of the Network Audio Unit as per Technical Specification No. 4	No.	11		
5	Supply of Amplifier as per Technical Specification No. 5	No.	9		
6	Supply of Amplifier as per Technical Specification No. 6	No.	2		
7	Supply of 40 Watt Horn Speaker as per Technical Specification No. 7	No.	88		
8	Supply of 30 Watt indoor Wall Mounted Speaker as per Technical Specification No. 8	No.	12		
9	Supply of CVT for Indoor Wall Speaker as per Technical Specification No. 9	No.	12		
10	Supply of cold rolled powder coated floor mounted MS Rack with inbuilt Power Strip, Cooling Fan, Back Metal Door for PA System and Front Glass Door with Lock & Key as per Technical Specification No. 10	No.	12		
11	Supply of GI Truss Pole for mounting of outdoor Speaker as per Technical Specification No. 11	No.	11		
12	Supply of Bracket for installation of Horn Speaker on the Pole as per Technical specification No.12	No.	11		
13	Supply Junction Box as per Technical Specification No. 13	No.	15		

14	Supply of 2 C X 1.5 Sq. mm. Cable as per Technical Specification No. 14	Mtr.	700		
15	Supply of Cat - 6 Cable as per Technical Specification No. 15	Mtr.	400		
16	Supply of 1 KVA UPS as per Technical Specification No. 16	No.	12		
17	Supply of 12 V, 65 AH SMF Battery as per Technical Specification No. 17	No.	24		
18	Supply of Wireless Unit as per Technical Specification No. 18	No.	4		
19	Supply of 29.5 DBI Antenna as per Technical Specification No. 19	No.	4		
20	Supply of GI Truss Pole for mounting of Antenna as per Technical Specification No. 20	No.	4		
21	Installation, Testing & Commissioning of the entire system to work synchronization of the Network with all hard work & accessories complete in all respect as directed as per Technical Specification No. 21	LS	LS		

Part-II

Comprehensive Operation & Maintenance Contract of the Public Address Solution System at Deendayal Port Authority for the period of five Years.					
1	2	3	4	5	6
Sr. No.	Description of Services	Quantity	Physical Unit	Unit Price in Rs.	Total Price per line item in Rs.(3 x 5)
1.	Comprehensive Operation & maintenance contract for 5 Years after the completion of guarantee period of one years.				
(i)	Second Year	12	Month		
(ii)	Third Year	12	Month		
(iii)	Fourth Year	12	Month		

(iv)	Fifth Year	12	Month		
(v)	Sixth Year	12	Month		
Total of Part-II Rs.					
Total (Part-I+ Part-II) Rs.					

Net Amount in words Rupees_____Only.

(The rates should be inclusive of all taxes, duties, fees, cess etc. and all incidental charges; but exclusive of GST).

Signature & Seal of Contractor

Executive Engineer (E)
Deendayal Port Authority

Part-I, SCOPE OF WORK

General:

In DPA. At present, the North Gate, West Gate – I, West Gate – II, West Gate – III, Newly Constructed 13th to 15th Berth Gate, Bunder Area Gate and the Oil Jetty Nos. 1 to 4 Gate are having the Network facility which will be used for the proposed PA System; whereas the Gates of Oil Jetty Nos. 7 & 8 do not have the Internet facility and shall be provided with facility through the Wireless mode so that the announcement from any of the Control Rooms can be transmitted uniformly to all the locations of the Port in case if any emergency situation arises owing to any reason for which immediate evacuation from the Port area may be required. The system shall have the facility to convey the announcement to the individual location individually or to all the locations at a time. Also, facility will be kept for the bidirectional voice communication facility between any of the Control Rooms and any of the remote locations. Also, the system shall have connectivity through the Internet with AO Building Control Room. The systems at all the locations shall have the power back up facility.

1. Technical Specification No.1

This include the supply of Zonal Paging microphone details as below:

- ❖ Zonal Paging microphone for installation anywhere on LAN network system.
- ❖ Full duplex network audio paging microphone, built-in one –way and two way communication & monitoring system.
- ❖ Zone paging, Group paging, all Zone Paging, two-way intercom facilities.
- ❖ Built-in 2W speaker with excellent sound clarity.

Technical Specification.	
Communication Protocol	TCP/IP, UDP
Audio Format	MP3
Transmission Speed	100Mbps
frequency Response	80-16,000Hz
S/N Ratio	>68db
Built-in Monitor Speaker	2W
Input	Mic In (for hands free), Line Input
Output	Phone Out, Line Output
Short Circuit Input	dry Contact Input
Power supply	DC 24V with Adaptor
Power consumption	<8W

2. Technical Specification No. 2

This include the supply of the AIP-802SP IP Network audio system software is used to control and configure the system. All system and equipment parameters' set up

and surveillance can be competed and monitored through this software. Compatible with windows XP and above operating system.

Technical Specification.	
Communication Protocol	TCP/IP, UDP
Audio Format	MP3
Transmission Speed	100Mbps
frequency Response	80-16,000Hz
Aux Input Sensitivity	350mV
S/N Ratio	>65db
Output	1V
Display Size	89 mm
Power supply	DC 24V with Adaptor
Power consumption	<50W

3. Technical Specification No.3

- ❖ Professional IP network intercom terminal with dial-up, suitable for intercom communication in extreme and noisy factory environment such as power plant, dam, steel plant, coal plant and mine.
- ❖ 5mm thick alloy enclosure, with very strong waterproof and dust-proof structure.
- ❖ Embedded DSP audio processing technology.
- ❖ Built-in 1 channel network audio decoding module, support, TCP/IP, UDP, IGMP protocols and enables the networking transmission Of 16-bit CD quality audio signal.
- ❖ Built-in voice intercom module, support full duplex intercom and call, work with high performance DSP audio processing module to support digital echo cancellation and audio compression function.
- ❖ Built-in number and function key, supports calling to any terminal, full duplex intercom.
- ❖ Built-in 30W digital amplifier, which could be connected to external low impedance speakers for paging

Technical Specification:	
Network Input	Standard RJ 45 input
Protocol	TCP/IP,UDP
Transmission Rate	100Mbps
frequency Response	80Hz-16kHz
S/N Ratio	>65db
External Speaker power	30W
Operating temperature	-20° -60° C
Output	Line output
Power Supply	AC: 220-240V 50/60Hz

Power consumption	<40W
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4. Technical Specification No.4

- ❖ IP Network audio unit or decoder.
- ❖ Non-dedicated network system solution.
- ❖ Can be installed anywhere on the LAN network.
- ❖ Zone definition is done through AIP-82SP software, each network audio unit could be regarded as one zone, several zones can be defined as a group for synchronous operation.
- ❖ Receives network digital signal for the zone and decoded into analog audio signal.
- ❖ 89mm industrial grade display with infrared remote control to play pre-recorded files stored in server program library.
- ❖ Built-in 2x20W (8Ω load) speaker output. External amplifier can also be connected to add additional external speakers.
- ❖ USB Port to plug in USB stick to play pre-recorded messages or media files locally.

Technical Specification.	
Communication Protocol	TCP/IP, UDP
Audio Format	MP3
Transmission Speed	100Mbps
frequency Response	80-16,000Hz
Aux Input Sensitivity	350mV
S/N Ratio	>65db
Output	1V
Display Size	89 mm
Power supply	DC 24V with Adaptor
Power consumption	<50W

5. Technical Specification No. 5

- 7 Mic & 2 Aux Inputs.
- Preamplifier and Line Output for connecting to a Booster Amplifier and for recording the program.
- Line Input for connecting the output from any external PA mixer or permitting SSA-350 to be used as a Booster Power Amplifier.
- Resettable circuit breaker for protection against overload and short circuit. Instant transfer to DC power (Car Battery) if AC power fails
- Box Speaker/Driver Unit selector switch. Bass boost defeated at Driver Unit position for safer operation of driver units.
- Instant transfer to DC power (Car Battery) if AC power fails.

Technical Specification: SSA-350	
Power OUTPUT	450W Max., 350W RMS at 10% THD, 320W RMS at 5% THD, 300W RMS at 2% THD
Output Regulation	≤ 2 dB, no load to full load at 1kHz
Input Channels	7 × Mic 0.8mV/4.7kΩ, 1 × Aux 100mV/470kΩ, × Aux 200mV/470kΩ, 1 × Line 1V/50kΩ
frequency Response	50-15,000Hz ±3dB
Signal to Noise Ratio	60dB
Tone Controls	Bass: ±10dB at 100Hz, Treble: ±10dB at 10kHz
Output	Preamplifier 200mV/600Ω, Line 1V/1kΩ
SPAKER OUTPUTS	4Ω, 8Ω, 70V & 100V
power supply	AC: 220-240V 50/60Hz DC: 36V (3 × 12V Car Battery)
ER CONSUMPTION	AC: 660VA DC: 6A

6. Technical Specification No. 6

- ❖ 1x Line 200mV unbalanced input through ¼" phone socket, 1xLine 200mV balanced input & 2xLine 1V balanced inputs through XLR connectors, one 1V input having priority over all other inputs.
- ❖ 100V inputs provided for connecting another amplifier's output in long line applications.
- ❖ Ground lift switch provided at rear panel which helps reducing the hum that occurs due to multiple ground loops in the installations.
- ❖ Resettable circuit breaker for protection against overload and short circuit.
- ❖ Loop through output for connecting another booster amplifier.
- ❖ 482.6 mm (19") Rack mountable chassis.
- ❖ Instant transfer to DC power (Car Battery) if AC power fails

Technical Specification: APA-480	
Power OUTPUT	750W Max., 600W RMS at 10% THD , 550W RMS at 5% THD, 500W RMS at 2% THD, 480W RMS at 1% THD
Output Regulation	≤ 2 dB, no load to full load at 1kHz
Input Channels	× 200mV/470kΩ (unbal.), 1 × 200mV/50kΩ (bal.), 2 × 1V/50kΩ (bal.), 1 × 100V Input/50kΩ
frequency Response	50-15,000Hz ±3dB

Signal to Noise Ratio	60dB
Tone Controls	Bass: $\pm 10\text{dB}$ at 100Hz, Treble: $\pm 10\text{dB}$ at 10kHz
Output	Loop through 2 \times 200mV/600W, 2 \times 1V/1kW
SPAKER OUTPUTS	4 Ω , 8 Ω , 70V & 100V
power supply	C: 220-240V 50/60Hz DC: 24V (2 \times 12V Car Battery)
POWER CONSUMPTION	C: 1200VA DC: 15A

7. Technical Specification No.7

- Ahuja high quality, weather proof horn speakers are compact, lightweight and rugged. They are molded in tough UV protected ABS plastic for longer lasting finish.
 - The specifications and construction of these are similar to the low impedance horn speakers. These models have been provided with 100V line matching transformers with multiple taps/ impedance easily selectable by changing the position of the rotary switch at the rear of the sealed assembly.
 - These 100V models are ideal for installations where long speaker cables are used, to avoid power loss in the cables.
 - Rectangular models are particularly suitable for areas where directivity of sound is of importance.
 - They meet European Union regulations and comply with low voltage directive standard EN 60065. Degree of protection IP66 is provided against foreign particles such as dust and jets of water, thus making them ideal for outdoor use.
- UV Protected ABS Bell, Reflector and Back Cover. External Stand Mounting Bolts in Stainless Steel.

Technical Specification: SUH-40XT	
INPUT POWER	40W RMS/60W Max
POWER TAPS	40/30/20/10/5W
IMPEDANCE	250/330/500/,1k/2k Ω
FREQUENCY RESPONSE	180-7,000Hz
SPL at 1kHz	112.5dB/1W/1m, 128.5dB/40W/1m
Dimensions	400 x 200 (L422) mm
Weight	3.90kg
Material	ABS (UV Protected)

8. Technical Specification No.8

- High fidelity 2-Way, 100V multipurpose PA Wall Speaker.

- 100V, Power taps of 32W, 16W, 8W.
- Facility to use as 8 ohms Low Impedance Speaker available.
- Power Taps can be selected through an easily accessible rotary switch.
- Weather Resistant Speaker.
- Movable mounting bracket supplied, can be mounted in vertical or horizontal positions.

Technical Specification: PS-500	
Power rating	32W RMS / 48W Max.
RATED VOLTAGE	100V
POWER TAPS ON 100v	32/16/8w
LOW IMPEDANCE	8Ω
frequency Response	80-20,000Hz
SPL at 1kHz (1W/1m)	87dB
SPEAKER	Woofer 130mm (5.25"), Tweeter 47mm (1.85") dome

9. Technical Specification No.09

- Attractive, aesthetically pleasing white plastic housing.
- Simple to install against walls, partitions and panels, even after the wiring is complete.
- Compatible with all Ahuja wall and ceiling speakers with 100V line matching transformer.
- Reliable, high wattage rotary switch (in AT-40 and AT-20) has 11 selectable positions: Max, 9 attenuated positions (in 3 dB steps) & OFF.
- AT-06 has a reliable rotary switch with 5 selectable positions: Max, 3 attenuated positions (in 3dB steps) & OFF.
- Suitable for connection to speaker or speakers with RMS power rating up to 40 Watts (for AT-40), 20 Watts (for AT-20) and 6 Watts (for AT-06).
- Ideal for hotels, office cabins, showrooms, greenrooms, etc.

Technical Specification: L AT- 40	
Rated Power	40W RMS
Input Voltage	100V
Output Positions	Max, 9 attenuation positions in 3dB, steps (-3dB to -9dB) and OFF

10. Technical Specification No. 10

- Powder coated cold rolled MS Floor mount rack size of 600 mm x 600 mm with 4 caster wheels and inbuilt power strip and cooling fan, front glass door with lock and key and back metal door for PA System.

11. Technical Specification No. 11

G.I Truss Pole For Mounting.

A "GI Truss pole for a mount horn speaker" typically refers to a galvanized iron (GI) pole used to mount a horn loudspeaker outdoors. 4" Diameter & 6 feet full height GI truss poll for mount bracket of horn speaker on top. Including fabrication with old RCC base bottom & Anchor fast on rooftop.

12. Technical Specification No. 12

HORN SPEAKER MOUNTING BRECKET.

The mounting brackets are specially designed for mounting the horn speakers. Using these mounting brackets, these horn speakers can be mounted on any ceiling, pole or other position, while aiming the loudspeakers into the desired direction. They are constructed of steel with a thickness of 4 mm containing a zinc-plated finish preventing oxidation, while the U shaped profile of the base increases the stability of the speakers. The bracket comes with the necessary parts, such as bolts, nuts, washers and speaker attachments ensuring safe and secure mounting. Make with "L" shaped angle bracket for mount Horn speaker on GI truss poll with check Nut to adjustable height at bracket

13. Technical Specification No. 13

A 4"x4" IP66 waterproof junction box with a cover for speakers typically refers to an enclosure designed to protect electrical connections from dust and water ingress, especially in outdoor or exposed environments. The IP66 rating means it's protected against dust and strong water jets. While a specific datasheet for a 4"x4" box may not be universally available, you can find datasheets for similar IP66-rated junction boxes that will provide the necessary technical details.

Technical Specification: Speaker Junction Box	
IP66 Rating:	This is crucial for outdoor or high-moisture environments, indicating protection against dust and powerful water jets.
Material:	Junction boxes can be made FRP materials. The choice depends on factors like corrosion resistance and environmental conditions
Size:	A 4"x4" box (approximately 100mm x 100mm) provides adequate space for typical speaker wire connections.
Cover:	The cover is essential for maintaining the IP66 rating and protecting the

	internal connections.
Glands:	Cable glands are used to create a waterproof seal around the cables entering the box
Mounting:	Consider how the box will be mounted (e.g., wall-mounted, surface-mounted) and ensure appropriate mounting hardware is available.
Wiring:	Ensure sufficient space for the necessary wiring and consider the amp rating of the box in relation to the speaker's power requirements

14. Technical Specification No. 14

- FALCON SPEAKER CABLE is a high quality twisted pair designed for connecting Speakers and Amplifiers in commercial or residential A/V systems.
- Quality Construction – Conductors are stranded 16 Gauge copper, and the conductor Insulated color-coded Black, Red & Jacketing.

Technical Specification: CONSTRUCTION OF 16 AWG SPEAKER CABLE	
Center Conductor	16 AWG, 48/0.200 mm Annealed Tinned Copper.
Insulation	PVC
Outer Jacket	PVC, Silver Grey / As Per Customer
Center Conductor	0.200 ± 0.003 mm
Insulation	2.65 ± 0.05 mm
Jacketing	6.50 ± 0.10 mm
DC Resistance (Max.) At 20°C	13.36 Ω-km
Temperature	70° Celsius
Insulation Resistance Const.(Min.) At 27°C	36.7 M Ω-km

15. Technical Specification No. 15

FALCON DATA CABLE is a high quality Solid copper uniform twisted pair designed for networking & to transfer data.

Technical Specification: CONSTRUCTION OF CAT -6 NETWORKING CABLE	
Center Conductor	24 AWG, 1/0.550 MM Annealed Bare Copper.

Dielectric	P.P
Dielectric Pair Colour	Orange + White-Orange Line , Brown+ White-Brown Line, Blue+ White-Blue Line, Green+ White-Green Line
No. of Pairs	4
Outer Jacket	PVC
Outer Jacket Colour	Orange / As Per Customer
Printing	Cat – 6 Networking Cable 4/24 AWG < Job Card NO) Mtr. Marking Falcon
Center Conductor	1/0.550 mm
Dielectric	0.95 mm
Outer Jacket	6.0 ± 0.20 mm
Capacitance (Cond. To Cond.)	51 Pf/Mtr.
DC Resistance (Max.) At 20°C	84.41 Ω-km
Temperature	-15° to 70°Celsius
Insulation Resistance (Min.) At 20°C	5000 M Ω-km

16. Technical Specification No. 16

Technical Specification: APC Smart-UPS (Overview)	
Model Name	APC Smart-UPS RC 1000VA 230V No Batteries India
Includes	Smart UPS signaling RS-232 cable , USB cable , User Manual , Warranty card
Standard Lead Time	Usually in Stock
Product Distribution	India
Output	
Output Power Capacity	800 Watts / 1000 VA
Max Configurable Power (Watts)	800 Watts / 1000 VA
Nominal Output Voltage	230V
Output Voltage Distortion	Less than 2%
Output Frequency (sync to mains)	50/60Hz +/- 3 Hz
Other Output Voltages	220, 240V
Crest Factor	3 : 1
Crest Factor	Double Conversion Online
Waveform Type	Sine wave
Output Connections	(4) India 3-pin 6A (Battery Backup)
Input	
Nominal Input Voltage	230V
Input Frequency	40 – 70 Hz
Input Connections	India 3-pin 6A
Cord Length	1.52 meters

Input voltage range for main operations	110 – 280 (half load) V
Input Breaker Capacity	10 A
Batteries & Runtime	
Battery Type	No internal battery – uses external battery system
Communications & Management	
Interface Port(s)	DB-9 RS-232 , Smart-Slot
Control panel	LED status display with load and battery bar-graphs and On Line : On Battery : Replace Battery : and Overload Indicators
Audible Alarm	Alarm when on battery : distinctive low battery alarm : overload continuous tone alarm
Physical	
Maximum Height	220.0 mm
Maximum Width	145.0 mm
Maximum Depth	400.0 mm
Net Weight	5.7 kg
Shipping Weight	6.3 kg
Shipping Height	340.0 mm
Shipping Width	235.0 mm
Shipping Depth	478.0 mm
Color	Black
Units per Pallet	60.0
Pallet Weight	398.0 kg
Environmental	
Operating Environment	0 – 40 °C
Operating Relative Humidity	0 – 95 %
Operating Elevation	0-900 meters
Storage Temperature	-20 – 60 °C
Storage Relative Humidity	0 – 95 %
Storage Elevation	0-4500 meters
Audible noise at 1 meter from surface of unit	0.000 dB
Conformance	
Standard warranty	2 years repair or replace
Recommended Make	Numeric/Fuji/Microtech/Luminious/Servotech

17. Technical Specification No. 17

Technical Specification: (SMF Battery)	
Nominal Voltage	12V
Rated Capacity	65Ah / C20Hr / 1.75VPC / 27°C
Dimensions (±2mm)	Length 351 mm (13.82 in.) Width 167 mm (6.57 in.) Total Height 175 mm (6.89 in.)
Weight (±5%)	19.20 Kg (42.33 lbs)
Terminal Type	M6 x 20 mm Bolted
Capacity @ 27°C	55.90 Ah (10hr, 5.59 A, 10.5 V/battery) 51.40 Ah (5hr, 10.29 A, 10.2 V/battery) 36.30 Ah (1hr, 36.3 A, 9.6V /battery)
Capacity affected (Temperature at C20 hr rate)	40°C (104°F) 110% 27°C (80.6°F) 100% 0°C (32°F) 80% -15°C (5°F) 60%
Case Material	Standard PPCP (12AL065) FR Version UL 94-V0 (12ALZ065)
Internal Resistance (IR)	Approx. 9.4 mΩ for a fully charged battery (27°C)
Short Circuit Current (As per IEC)	1382 A
Operating Temp. range	-20°C to +60°C (50 to 60°C for shorter duration)
Nominal Operating Temp. range	27°C ± 3°C
Standby use (27°C)	Charging Voltage 13.5 V/battery Charging Current Max. 25% of rated capacity Temp. Compensation ± 18mV/battery/°C
Cyclic use (27°C)	Charging Voltage 13.8 V/battery Charging Current Max. 25% of rated capacity Temp. Compensation ± 30mV/battery/°C

18. Technical Specification No. 18

Technical Specification: Force 300 CSM	
Surge Supression*	1 Joule Integrated
Environmental	IP67 & IP68
Temperature	-30°C to 60°C (-22°F to 140°F)
Weight	0.5 kg (1.1 lb) Includes mounting bracket
Wind Survival	180 km/hour (112 mi/hour)
Dimensions (Dia x Depth)	84 x 223 x 32 mm (3.3 x 8.8 x 1.3 in) without brackets
Pole Diameter Range	2.5 - 3 in (6.4 - 7.6 cm) with included clamp
Power Consumption	12W (Up to 15 W in extreme cold temperatures when heater is activated.)
Input Voltage	30V Passive PoE (14–30V DC input)
Security (Encryption)	: 128-bit AES (CCMP mode)
Certifications	
FCCID	Z8H-89FT0047

FCC Regulatory Part	C058910C122A
ETSI Regulatory Part	C050910C221A
Industry Canada Cert	109W-0047
CE	EN 301 893 V2.1.1 (5.4 GHz), EN 302 502 V2.1.1 (5.8 GHz)*
Frequency Range	4910 to 6135 MHz
Antenna Type	Connectorized
Peak Gain	n/a
3 dB Beamwidth Azimuth	n/a
3 dB Beamwidth Elevation	n/a
Front-To-Back Isolation	n/a
Cross Polarization	n/a
Connectors	2 x 50 ohm, RP-SMA (Reverse Polarity SMA) Compatible with RF-Elements TwistPort™ Adaptor for

19. Technical Specification No. 19

Technical Specification: 29DBI	
Antenna Type	Parabolic
dish Size	0.6 m (2 fit)
Gain	29.5 DBI
Operation frequency	5.25-5.85 Ghz
3 dB Beamwidth	6.1°
Polarization	Single
F/B	38 dB
VSWR	1.5:1

20. Technical Specification No. 20

A "GI Truss pole for a mount horn speaker" typically refers to a galvanized iron (GI) pole used to mount a horn loudspeaker outdoors. . 4" Diameter & 6 feet full height GI truss poll for mount bracket of Antenna on top. Including fabrication with old RCC, base bottom & Anchor fast on rooftop.

21. Technical Specification No. 22

This include the complete job for the Installation, Testing and Commissioning of IP based paging system with online UPS & Synchronizing with network system to the entire Port as directed by Engineer In-charge.

Part-II (Scope of Work)

General Maintenance Requirements

1. The PA System will be required to operate 24 X 7 and the contractor shall offer satisfactory service during warranty period of one year and post warranty comprehensive Operation & Maintenance under contract for five years, the contractor should either have his own service setup in India, any indigenous manufacturer/reputed contractor who is capable to maintain the PA System and its associated systems & equipment. The contractor must indicate in the tender the name of the maintenance contractor and enclose a copy of the agreement with them. The agreement must be valid for at least five years. After the defect liability period the availability of the PA system should be better than 95 % of the time in a year. 5 % time in a year is allowed for break down maintenance, which also includes preventive maintenance. COAMC shall be entered with the successful bidder bringing out modalities of apportionment of time required for break down as well as preventive maintenance.
2. The agreement between the contractor and the maintenance contractor should clearly specify that the contractor will provide all necessary technical support including supply of spares and consumable to the maintenance contractor during the maintenance period; both during warranty and post warranty; so that the latter can effectively maintain the PA System.

Warranty Maintenance

3. During warranty period, the contractor or, as the case may be, the Maintenance contractor shall set right the PA System immediately on receipt of a complaint but in no case later than 24 hours. Preventive Maintenance shall be carried out once in 06 (Six) months i.e. 4 times during the warranty period of 01 years. The Contractor must deploy only qualified and experienced staff in maintenance activities. The spare parts whatever required shall be provided by the contractor free of cost.

Post Warranty Maintenance

4. Scope of COAMC shall include: (a) supply of all spare parts and consumables, (b) periodical preventive maintenance visits, (c) Local operational staff & unlimited 'on-call visits' to attend the repairs and breakdowns. During COAMC all parts/components shall be repaired / replaced by the Contractor or, as the case may be, maintenance contractor. No extra payment shall be made for replacement of parts.
5. The operational related activities shall be carried out strictly under the supervision of DPA on 24 X 7 basis.

6. Full particulars of maintenance service Centre and qualified engineering staff should be enclosed with the technical bid.
7. Maximum time limit for attending the complaint shall be 24 hours. However, Govt. Holidays will be included in the maximum time limit prescribed therein for attending and making the equipment operational. If the PA System remains non-operational continuously beyond this time limit, Rs. 500/- per hours will be deducted after given time of 24 Hrs.
8. The OEM shall make visit at least once in 6 months. For every failure to carry out OEM visit the 1% of the quoted amount of particular years of COMC will be deducted.

Signature & Seal of Contractor

Executive Engineer (E)
Deendayal Port Authority