

TENDER SPECIFICATION OF IP BASED GENERAL BROADCAST AND SRE SYSTEM WITH ACCESSORIES

INTRODUCTION

1. For better understanding and to evaluate all the prospective BIDDERS on same platform, the tender specification has been divided into three parts:
 - a. **Part-1:** General Information and BIDDER'S Responsibility.
 - b. **Part-2:** Operational and Technical Specification.
 - c. **Part-3:** General Terms and Conditions.
2. Prospective BIDDERS are to comply with the requirements and terms & conditions mentioned in Part-1, Part-2, and Part-3 of the tender specification. BIDDERS are also to provide performance/ technical data, brochure, specific figures, and information as asked against each condition.
3. Prospective BIDDERS are to submit their offer in single envelopes (Technical and Financial Offer).
4. BIDDER shall comply all the terms and conditions of the tender documents as compliance statement by the Bidder under the following tabular format:

Tender Article No	Description of Terms and Conditions (as mentioned in Part-1, Part-2 and Part-3 of the Tender)	Compliance/ Remarks by Principal/ manufacturer (To be agreed/To be mentioned with detail explanations)

The financial quote is to be submitted separately in foreign currency on FOB basis, but compliance/remarks are to be indicated in the technical offer.

PART I : GENERAL INFORMATION AND BIDDER'S RESPONSIBILITY

5. Bangladesh Navy (BN) plans to procure one complete set of **IP Based General Broadcast & SRE System** with cables and necessary accessories.
6. **Installation Site.** BNS SHER-E-BANGLA at PATUAKHALI.
7. **Site Visit Prior Tender Submission.** The bidder must visit the installation site before submission of tender to avoid any difficulties/ confusion after placing order. Additionally, bidder is to submit a detail study report (proposed layout drawing with cable, speakers Arrangement and zonewise load distribution planning of their own system) In this regard, bidder shall have to submit the relevant personnel information and application to DGDP for site visit 03 (Three) weeks prior to the said site visit.
8. **Qualification of Bidder.** Manufacturers of General Broadcast System or their authorized distributor/ agent can submit quotations through their authorized local agent in Bangladesh. In case of offer from foreign trading companies/ distributor/ agent, certificate of dealership/ agencyship from Original Equipment Manufacturer (OEM) or authentication certificates of OEM authorized local agent is to be submitted with the offer. In this regard the following certificates are to be submitted with the offer (if not OEM):
 - a. Authorization Certificate from OEM.
 - b. Supply Assurance Certificate from OEM.
9. **Compliance Statement.** A compliance statement fulfilling all the requirement of the tender is to be submitted for evaluation of the quotations. Stating mere 'Yes or No' will not suffice and detailed evidences with description/ information, brochures/ booklet, drawing and diagram as required is to be given. An incomplete compliance statement may attribute to cancellation of the offer. If any clause of this specification does not commensurate with offered System, the deviation has to be spelt out clearly.
10. **Equipment Manufacturer and Reliability/ Requirement.** The items should be brand new, unused and of recent model, proven reliability in the field of operation. The supplier shall ensure the continuity of the operation and availability of necessary spares for at least 15 years each in case of obsolete model over time.

11. **User List.** List of users of the offered systems is to be mentioned with full address. The list shall provide the name of various users with respective model and brand of the system. The offered system should be widely used by various users. The user list Shall be used for the assessment of the offer.

12. **Condition for Acceptance of Quotation.** 01 (One) set of brochure/ booklet, containing technical information of the offered General Broadcast System (IP Based) is to be provided with the offer for evaluation and assessment. The brochure should contain in addition to other accessories of the offered General Broadcast System including characteristics/ behavior when various accessories are added or taken-off. Non-submission of said documents is to be treated as non-compliance or disqualification of the offer.

13. **Acceptance/ Rejection of Bid.** DGDP/ BN reserves the right to accept or reject any bid or to terminate the bidding process and reject all bids at any time prior to the contract award (without thereby incurring any liability to the BIDDER).

14. **Validity.** The offer is to remain valid till 30 June 2025.

PART- II: OPERATIONAL AND TECHNICAL SPECIFICATION

15. **Name of the Equipment.** IP Based General Broadcast & SRE System with Accessories.

16. **Purpose.** The IP Based General Broadcast & SRE System will be used in Naval Establishment to provide zone wise voice announcement and audible alarm for administrative and operational purposes. An audio entertainment system is to be incorporated within the system.

17. **Quantity.** 01 (One) Complete System.

18. **Type.** Industrial.

19. **Brand.** To be mentioned.

20. **Model.** To be mentioned.

21. **Country of Origin.** Canada, Denmark, France, Finland, Germany, Italy, Japan, Netherlands, Norway, South Korea, Spain, Switzerland, Sweden, UK, USA, Australia and UAE (Country to be mentioned).

22. **Country of Manufacture.** Canada, Denmark, France, Finland, Germany, Italy, Japan, Netherlands, Norway, South Korea, Spain, Switzerland, Sweden, UK, USA, Australia and UAE (Country to be mentioned).

23. **Original Equipment Manufacturer(OEM).** Name & Full address with e-mail of OEM is to be mentioned.

24. **Principal/ Supplier.** Name & Full address with e-mail of Principal/ Supplier is to be mentioned.

25. **Local Agent.** Name & Full address with e-mail of local agent is to be mentioned

26. **Year of Manufacturing.** 2024 or later.

27. **Classification Standard.** The equipment is to be designed and constructed fulfilling the requirement of ISO standardization organization/ society. The type approved standards to which the quoted item complies with are to be clearly specified.

28. **Environmental Condition.**

- | | | | |
|----|-------------------------------|---|--|
| a. | Ambient Operating Temperature | : | 5 ⁰ C to + 55 ⁰ C. |
| b. | Storage Temperature | : | To be mentioned. |
| c. | Relative Humidity | : | Up to 95 % (non- condensing). |

29. **General Features and Capability.** The system should have following features but limited to:

- a. IP based central server and controller should consist of 06 (800 Watt) network amplifiers.
- b. Broadcast/ alarm priority override.
- a. Software configurable zones and selection option.
- b. Color TFT LCD display.
- c. Remote announcement facility.
- g. Audio entertainment system with advance interface facilities (Pen drive, Flash Memory, Wi-Fi, Bluetooth etc).
- h. Digital monitoring system for speaker loops, access panel and microphones.
- j. Control panel for monitor and zone selection.
- k. System terminal with PA priority override.
- l. Emergency Power Supply Unit.
- m. Auto blower for amplifier cooling.
- n. Alarm panel for push button.
- p. Broadcast from multiple location (with wall mounted and portable announcing station from various places like Guard room, PDHQ, Parade ground etc).
- q. System PC/ Laptop based software application for configuration, maintenance and trouble shooting.
- r. All necessary software for future update/ configuration/ trouble shooting.
- s. Interface option to PABX, IPBX, Security System, Alarm System etc.
- t. Guided user interface for status monitoring.
- u. Digital audio processing capability.
- v. Redundant Ethernet connection option.
- w. 01 (one) IP based network power amplifier will always remain standby.

30. **Power Supply.** The system shall run with available power supply (220V AC, 50/60Hz, 1Ph) and 24 Volt DC emergency power supply. Provision should be made to switch over automatically to 24V DC emergency supply instantly, if AC fails. Bidder is to provide necessary emergency supply items (backup supply arrangement). Details of the power supply and power consumption are to be mentioned with the offer including emergency supply arrangement.

31. **Operation.** The broadcast system is remain standby continuously and should activate when the microphone switch is pressed/ ON. When the alarm push is activated the system shall immediately override the microphone input. The alarm signal shall be heard only as long as the push is pressed. When microphone switch is pressed/ ON it shall override the audio input immediately. Individual zone control with selection of all zones in priority basis should be incorporated with the broadcast system.

32. **Scope of Supply.**

a. 01 x Complete set of IP Based General Broadcast & SRE System and Accessories with following composition (as per article 33a):

Ser	Description	Deno	Qty	Remarks
1.	Audio Manager / SRE System Controller	No	01	
2.	IP Based Network Cabinet Speaker	No	410	
3.	IP Horn Type Loudspeaker	No	07	
4.	SIP Mic	No	07	



RESTRICTED

Ser	Description	Deno	Qty	Remarks
5.	PoE Extender	No	20	
6.	Network Communicator	No	03	
7.	Outdoor box with DIN rail	No	06	
8.	AC to DC Converter DIN Mounting	No	06	
9.	4 Port PoE Industrial switch (with 2 SFP)	No	10	
10.	Enterprise Grade 24 Port PoE Switch (with 4 SFP) with 3 years OEM support license	No	22	
11.	SFP Module (1.25G)	Pair	20	
12.	SFP Module (10G)	Pair	92	
13.	Cable Manager	No	58	
14.	Tool Box with necessary Tools	Set	01	
15.	Laptop with configuration and Diagnostic software tool	no	01	
16.	Standard Size Rack (To accommodate necessary Equipment of the system)	No		As required Actual requirement to be assessed by the supplier during site survey
17.	Enterprise Grade 8 Port SFP Switch (with 4 SFP) with 3 years OEM support license	No		
18.	6 Core fiber cable for indoor including necessary flexible pipe or PVC pipe, shaddle, screws, royal plug as required and crimping works	Mtr		
19.	Wall Hanging Rack	No		
20.	Power Cable, 2.5 RM	Mtr		
21.	CAT-6 Cable	Box		
22.	CAT-6 Patch Cord, 5m	No		
23.	CAT-6 Patch Cord, 1m	No		
24.	Patch Panel fully loaded with keystone jacks	No		
25.	Online UPS, 1KVA (Standard Backup)	No		
26.	TJ Box	No		
27.	PVC Pipe (10 ft)	No		

- b. Certification and Reports (as per article 33b).
- c. Drawing and Manual/ Documentation (as per article 33c).
- d. Spares (Optional) (as per article 34).
- e. Local Training (as per article 35).
- f. Installation, Supervision and Setting to Work (STW) (as per article 36).
- g. Test/ Trial and Acceptance (as per article 37).

33. **Technical Specification.** Specifications of the main units are as follows:

- a. IP Based General Broadcast & SRE System.

(1) **Audio Manager / SRE System Controller.** The Audio Manager/ SRE System Controller shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : As per paragraph-21 (To be mentioned).
- (d) Manufacturing of Country : As per paragraph-22 (To be mentioned).
- (e) Screen : 17.3 inches or more.
- (f) Resolution : 1920(H) × 1080(V) or better.
- (g) Viewing angle : 89/89/89/89 (up/down/left/right).
- (h) Touch screen : Technology to be mentined.

RESTRICTED

- (j) CPU : Intel®Xeon®processorE5-2600, Intel®Xeon®processorE5-2600v2, DualSocketLGA-011(SocketR3) CPU, standard E5-2643V2×2CPU or equivalent.
- (l) BIOS : 16MBSPIAMIBIOS@SMFlashBIOS or compitable with serial (10).
- (m) RAM : ×DIMM, up to 512GB RECC DDR3/1600MHz, standard 2×16GBRECC DDR3/ 1600MHz or better
- (n) Extension slot : 3PCIE3.0x16, 1PCIE2.0x4 (inx8), 1PCIE2.0x1, 1PCI or compitable to support the offered system.
- (p) Network feature : 2×10/100/1000Mbps adaptive network port, support remote wake-up or equivalent.
- (q) Other Technical information : Details to be mentioned.
- (2) **IP-Based Network Cabinet Speaker.** The IP-Based Network Cabinet Speaker shall have the following specification:
- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (b) Country of Origin : As per paragraph-21 (To be mentioned).
- (c) Manufacturing of Country : As per paragraph-22 (To be mentioned).
- (d) Network Interface : To be mentioned.
- (e) Transmission Speed : 100Mbps or better.
- (f) Supporting Protocols : TCP/IP, UDP or more.
- (g) Sampling Rate : 8K~48K or better.
- (h) Power Output : 10W or More.
- (j) Volume Control : To be available.
- (k) Frequency Response : 80Hz~16KHz +1/-3dB or better.
- (l) SNR : ≥68dB or better.
- (m) Other Technical information : Details to be mentioned.
- (3) **IP Horn Type Loudspeaker.** The IP Horn Type Loudspeaker shall have the following specification:
- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : As per paragraph-21 (To be mentioned).
- (d) Manufacturing of Country : As per paragraph-22 (To be mentioned).



RESTRICTED

- (e) Network Interface : To be mentioned.
- (f) Transmission Rate : 100Mbps or better.
- (g) Supporting Protocols : TCP/IP, UDP or more.
- (h) Sampling Rate : 8K~48K or better.
- (j) Bit Rate : 8K ~ 512Kbps or better.
- (k) Power Output : 25W or More.
- (l) Speaker Sensitivity : 104Db or better.
- (m) Volume Control : To be available.
- (n) Frequency Response : 300Hz to 14KHz (+1/-3dB) or better.
- (p) SNR : ≥68dB or better.
- (q) Ingress Protection : IP-54 or better.
- (r) Other Technical information : Details to be mentioned.

(4) **SIP Mic.** The SIP Mic shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : As per paragraph-21 (To be mentioned).
- (d) Manufacturing of Country : As per paragraph-22 (To be mentioned).
- (e) Network Interface : To be mentioned.
- (f) Supporting Protocols : TCP/IP,UDP, IGMP (Multicast) or more.
- (g) Sampling Rate : 8K~48K or better.
- (h) Transmission rate : 100Mbps or better.
- (j) Frequency response : 80Hz~16KHz +1dB/-3dB or better.
- (k) SNR : >65dB or better.
- (l) Other Technical information : Details to be mentioned.

(5) **PoE Extender.** The PoE Extender shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : As per Paragraph- 21 (To be mentioned).
- (d) Manufacturing of Country : As per Paragraph- 22 (To be mentioned).
- (e) Input Power Requirements : To be mentioned.
- (f) Connectors : Shielded RJ-45, female socket.

RESTRICTED

(g) Other Technical information : Details to be mentioned.

(6) **Network Communicator.** The network communicator shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : As per paragraph-21 (To be mentioned).
- (d) Audio Inputs/ Output : Mic-In/ Mic Out.
- (e) Frequency Response : 20Hz ~ 20KHz or better.
- (f) Other Technical information : Details to be mentioned.

(7) **Outdoor Box within DIN Rail.** The Outdoor Box within DIN Rail shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) Other Technical information : Details to be mentioned.

(8) **AC to DC Converter DIN Mounting.** The AC to DC Converter DIN Mounting shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) Power Rating : 60 Watt or better.
- (e) Output Voltage : 24V DC.
- (f) Output Current : 2.5A or more.
- (g) Other Technical information : Details to be mentioned.

(9) **Enterprise Grade 24 Port PoE Switch (with 4 SFP) with 3 years OEM support license.** The Enterprise Grade 24 Port PoE Switch (with 4 SFP) with 3 years OEM support license shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : As per paragraph-21 (To be mentioned).
- (d) Support POE : 24 Ports PoE or More
- (e) Other Technical information : Details to be mentioned.

(10) **04 Port Industrial Network Switch (with 2 SFP).** The 04 Port PoE Industrial switch (with 2 SFP) shall have the following specification:

- (a) Brand : To be mentioned.

RESTRICTED

- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) POE Ports : 04 Ports PoE or More
- (e) Other Technical information : Details to be mentioned.

(11) **SFP Modular (1.25G).** The SFP Modular (1.25G) shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) Max Data Rate : 1.25 Gbps or better.
- (e) Other Technical information : Details to be mentioned.

(12) **SFP Modular (10G).** The SFP Modular (10G) shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) Max Data Rate : 10 Gbps or better.
- (e) Other Technical information : Details to be mentioned.

(13) **Cable Manager.** The Cable Manager shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) Dimensions : To be mentioned.
- (e) Material : To be mentioned.
- (f) Other Technical information : Details to be mentioned.

(14) **Tool Box.** The Tool Box with necessary Tools shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country Origin : To be mentioned.
- (d) Manufacturing Country : To be mentioned.
- (e) Other Technical information : Details to be mentioned.

(15) **Laptop With Configuration and Diagnostic Software Tool.** The Laptop with configuration and Diagnostic software tool shall have the following specification:

- (a) Brand : To be mentioned.



RESTRICTED

- (b) Model : To be mentioned.
- (c) Country of Origin : As per paragraph-21 (To be mentioned).
- (d) Manufacturing Country : As per paragraph-22 (To be mentioned).
- (e) Processor : Intel Core i7/ Rvzen 7 {latest Generation}.
- (f) RAM : 16GB or More.
- (g) Storage : 512GB SSO.
- (h) Display : 15.6" FHD (1920x1080).
- (j) IO Port : SD Card Reader
1x HDMI 1.4b
1x USB 2.0
1x USB 3.2 Gen 2
1x Headphone/ microphone combe jack (3.5mm)

(16) **Standard Size Rack.** The Standard Size Rack (To accommodate necessary Equipment of the system) shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country Origin : To be mentioned.
- (d) Manufacturing Country : To be mentioned.
- (e) Size : To be mentioned.
- (f) Features : To be mentioned.

(17) **Enterprise Grade 08 Port PoE Switch (with 4 SFP).** The Enterprise Grade 08 Port PoE Switch (with 4 SFP) with 3 years OEM support license shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : As per paragraph-21 (To be mentioned).
- (d) Support POE : 08 Ports PoE or More
- (e) Other Technical information : Details to be mentioned.

(18) **6 Core Fiber Cable.** The Fiber Optic Cable 06 core for Indoor Including Necessary Flexible Pipe or PVC Pipe, shaddle, screws, royal plug as required and crimping works shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) Manufacturing Country : To be mentioned.
- (e) Diameter : To be mentioned.

RESTRICTED

- (f) Type : Multimode.
- (g) Core : 6 or more.
- (h) Other Technical information : Details to be mentioned.

(19) **Wall Hanging Rack.** The Hanging Rack will have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) Ingress Protection : IP 20 or more.
- (e) Size : To be mentioned.
- (f) Material : To be mentioned.
- (g) Features : To be mentioned.

(20) **Power Cable.** The Power Cable 2.5 RM shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country Origin : To be mentioned.
- (d) Manufacturing Country : To be mentioned.
- (e) No of Core : 3.
- (f) Size : 2.5 RM.

(21) **CAT-6 Cable.** The CAT-6 Cable shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country Origin : To be mentioned.
- (d) Manufacturing Country : To be mentioned.
- (e) Cable Conductor : Single Wire.
- (f) Conductor Size : AWG24 (0.20sq).
- (g) Cable Outer Diameter : 7.0 to 7.9.
- (h) Sheath Material : PVC.

(22) **CAT-6 Patch Cord.** The CAT-6 Patch Cord shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.

RESTRICTED

- (d) Type : Network Cable.
- (e) Material : To be mentioned.
- (f) Cable length : 5m or more.

(23) **CAT-6 Patch Cord.** The CAT-6 Patch Cord shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) Type : Network Cable.
- (e) Material : To be mentioned.
- (f) Cable length : 1m or more.

(24) **Patch Panel Fully Loaded With Keystone Jacks.** The Patch Panel Fully loaded with keystone Jacks shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country of Origin : To be mentioned.
- (d) Core : To be mentioned.
- (e) Configuration : To be mentioned.
- (f) Height : To be mentioned.
- (g) Length : To be mentioned.

(25) **On-Line UPS (Standard Backup).** The On-Line UPS shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country Origin : To be mentioned.
- (d) Manufacturing Country : To be mentioned.
- (e) Capacity : 1 KVA or More.
- (f) Frequency : 50 Hz.
- (g) Efficiency : >95% or better.
- (h) Protection : Over load and over Voltage, Short circuit Spike Surge etc.
- (i) Backup Time : Minimum 30 Minute at full load.
- (k) UPS Battery : To be mentioned.

(26) **TJ Box.** The TJ Box shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.

RESTRICTED

- (c) Country Origin : To be mentioned.
- (d) Manufacturing Country : To be mentioned.
- (e) Other Technical information : Details to be mentioned.

(27) **PVC Pipe.** The PVC Pipe (10ft) (for underground cabling) shall have the following specification:

- (a) Brand : To be mentioned.
- (b) Model : To be mentioned.
- (c) Country Origin : To be mentioned.
- (d) Manufacturing Country : To be mentioned.
- (e) Material : To be mentioned.
- (f) Other Technical information : Details to be mentioned.

(28) **Standard Accessories.** Standard Accessories must include (e.g. Pre Amplifier, Line matching, Transformers, Microphones, jack, sockets box etc) every item and accessories, which are essential to install and operate the General Broadcast with full functionality whether those are mentioned in the specification or not with purpose. A list of such items/accessories shall have to be provided inclusive of equipment price. Unit price of main amplifier and speakers are also to be quoted with the offer.

(29) **Software and Backup Software.** Supplier is to provide all related software OS and backup software (original licensed copy) to BN in CD/DVD/Flash drive format with step by step installation instructions. The list of such software is to be submitted with the offer.

(30) **Underground Cable Laying.** Underground cable laying work shall be done by bidder. Cost of underground cable laying and installation work shall be quoted and submitted with offer. Moreover, A detail plan and layout diagram of such work is to be submitted with offer by bidder.

b. **Certificate and Reports.**

(1) Following certificates and reports are to be provided in English for the offered item including associated equipment/ accessories **with the offer**:

- (a) 'Type Approval Certificates' of classification society.
- (b) Supply Assurance Certificate.
- (c) Guarantee and Warranty Certificates.
- (d) After Sales Service Support Certificate.

(2) Following certificates and reports are to be provided in English for the offered item including associated equipment/ accessories **during delivery**:

- (a) 'Type Approval Certificates' of classification society.
- (b) 'Quality Assurance Certificates' for each item and their associated equipment and instruments from OEM is to be provided.
- (c) 'FAT Certificates'.
- (d) Certificate of Genuine Product and Brand-New Item.
- (e) Guarantee and Warranty Certificates.
- (f) After Sales Service Support Certificate.

c. **Drawing and Manual/ Documentation.**



RESTRICTED

(1) **Installation Drawings.** Following drawings are to be submitted for buyer's approval prior 04 (Four) months of commencing of installation work:

- (a) Layout drawing.
- (b) Electrical inter-connection diagram of all equipment.
- (c) Cable diagram including cable type and cable grouping.
- (d) List of works (facility work support) those are needed from BN.

(2) **Manuals/ Document.** 02 (Two) set of following documents and manuals in English are to be provided at free of cost at the time of delivery:

- (a) Operating Manual.
- (b) Technical Manual with Circuit Diagram (At lasts upto component level).
- (c) Maintenance Manual.
- (d) Parts Catalogue with parts Identification List (PIL).
- (e) Installation Manual having Layout drawing of equipment, alignment instruction, electrical interconnection diagram, cable diagram, diagram showing interface (mechanical and electrical) and data protocol.

34. **Spares (Optional).** A list of the following spares shall be quoted separately with item wise price. The buyer may select any of the spares as required from the list:

Ser	Item Description	Qty	Unit Price	Remarks
1.	UPS 1200VA off line	-	To be mentioned	Detail technical Specification to be mentioned

Any other Optional spare/ accessories if needed to be quoted separately with item wise price. The buyer may select any of the suggested items from the proposed list.

35. **Local Training.** A group of operators/ technicians shall be trained locally in Bangladesh for 05 (Five) working days by the Manufacturer's/ Supplier Engineer on completion of installation and Test/Trial. Cost of air fare (to and from Bangladesh (installation site)), accommodation, food and internal transportation (to and from work site and hotel) of the Manufacturer's engineer shall be borne by Supplier. The cost of local training is to be quoted with the offer separately.

a. **Training Objective.** Objective of training is to learn about the functionality and maintenance of newly installed General Broadcast System.

b. **Training Contents.** The contents of the training should include following (but not limited to):

- (1) System composition, configuration, principle of operation and troubleshooting.
- (2) Software installation, operation and configuration for smooth conducting of all the tests.
- (3) Theoretical concept and procedure of tests (practical).
- (4) Repair and maintenance.

36. **Installation, Supervision and Setting to Work (STW).**

a. **Installation Materials and Accessories.** All necessary Installation materials, like junction boxes, cable, connectors, terminal, brackets, nuts, bolts, securing tie clips, channels, GI Wire, PVC Pipe Channel, Flexible pipe, MK Box, Electric channel, Saddle Screw, Royal Plug, Cable tie Clip, Elbow etc including other accessories are to be provided by the supplier.

b. **Bidder/ Supplier Responsibility.**

- (1) Installation of the items shall be done by the manufacturer's/ supplier engineer.
- (2) Qualified engineer is to be employed for the installation and STW. All expenses for food, accommodation, airfare and internal travel etc are to be borne by the supplier.
- (3) * Cost of supervision of installation works, Setting to Work (STW) and commissioning are to be quoted separately.

c. **Purchaser Responsibility.** Purchaser (BN) shall provide available assistance (if required) for installation under the direct supervision of OEM/ Supplier Engineer.

37. **Test, Trial and Acceptance.** On completion of installation, STW and commissioning are to be conducted in the presence of supplier/ manufacturer engineer. All expenses of supplier engineer are to be borne by the supplier. Final acceptance shall be given by CINS/ ACINS (BN) after satisfactory Test & Trial and commissioning of the set.

PART III: TERMS AND CONDITIONS

38. **Delivery.**

a. **Delivery and Installation Time.** Item delivery and installation as per scope of supply shall be completed within 15 (Fifteen) months and breakdown of said time line is appended below:

(1) **Delivery Time.** The items shall be delivered to the "Place of Delivery" within **09 (Nine)** months after signing the contract.

(2) **Installation Time.** The IP based General Broadcast System shall be installed within **06 (Six)** months after delivery of the items.

b. **Place of Delivery.** NSD, Khulna.

c. In case of CFR/CPT, the supplier shall carry the items from any sea port/ air port (as applicable) to NSD Khulna at the cost and risk of supplier.

39. **Shipment.**

a. **Source of Raw Material.** To be mentioned.

b. **Source of Supply.** The source of supply of the offered systems are to be mentioned. It should be from the country of manufacturer or country of origin.

c. **Port of Shipment:** To be mentioned. The port of shipment is to be from the country of manufacturer or country of origin.

d. **Consignee.** The supplied item shall be the following consignee:

The Commanding Officer	or	Officer In Charge
Naval Stores Depot		Naval Stores Sub Depot Dhaka
New Mooring, Chattogram,		Naval Unit Khilkhet
Bangladesh		Namapara, Dhaka-1229, Bangladesh
BIN-002349278-0503		

e. All items are to be brand new and to be delivered in seaworthy packing to ensure safe transit by sea. Certificates in this regard are to be provided during delivery.

f. All packages are to have packing notes showing their contents in detail and all packages shall be marked with the name and address of the consignee and gross weight.

40. **Project Timeline.** A forecasted project timeline indication month-wise event is to be provided with the offer and another reviewed project time line with project implementation plan is to be submitted after 15 days of signing the contract.

41. **Warranty, Guarantee and After Sales Service.**

a. **Warranty.**

(1) 12 (Twelve) months manufacturer's warranty for trouble free operation is to be provided for the item from the date of acceptance by the purchaser. If any component and submit of the supplied items becomes defective during the warranty period, the overall warranty shall be extended automatically for the period of subject component remains defective.

(2) For warranty repair/ replacement, the supplier shall collect the defective item from NSD, Chittagong/ NSD Khulna/ NSSD, Dhaka (as applicable) and re-supply the same to collecting place after warranty repair or for replacement within 90 (ninety) days from the date of defect at no cost to the purchaser.

b. **Bank Guarantee (BG) for Warranty.** The BIDDER shall issue a Bank Guarantee (BG) during submission of last 20% payment for a value of **@.05% (Five percent) of the total CFR/CPT value** from any scheduled bank in Bangladesh in favour of The Senior Finance Controller (Navy), Sailors Colony, Lalasarai, Mirpur-14, Dhaka-1206, representing Bangladesh Navy, Peoples Republic of Bangladesh, information to The Directorate General Defence Purchase, Ministry of Defence, Peoples Republic of Bangladesh. This BG shall remain valid until the warranty period of the supplied IP Based General Broadcast System and other items (notwithstanding minor deficiencies which would be mutually settled and agreed between PURCHASER and BIDDER) in Bangladesh, and it shall expire on receipt of **Warranty Completion Certificate**. If the contractual obligation warrants the extension of the validity of the BG, the BIDDER shall remain liable to do so at its own cost. In case of material failure of the BIDDER to fulfill its contractual obligation as per the terms and conditions of the contract, the BG in full or part thereof may be forfeited at the discretion of the PURCHASER.

c. **Guarantee.** The supplier is to give guarantee of continued supply of spares for at least 10 (Ten) years at a reasonable price (not exceeding 3% per year). Certificate is to be submitted with the offer.

d. **After Sales Service.** After sale service should be available with the local agent of supplier and is to be provided as and when required for indefinite period or at least 15 years after the installation. If any system, equipment etc becomes obsolete or out of production during or after the installation period (at least upto 15 years), the supplier is to submit alternative of same/ improved version for selecting the suitable replacement.

42. **Terms of Payment.** Payment shall be made through an Irrevocable Letter of Credit (LC). LC shall be opened at the expense of the PURCHASER and 100% LC value shall be made operative in favour of Supplier. CFR/ CPT value being the value of the supplied goods, payment shall be made as under:

a. **1st Installment.** 80% of CFR/ CPT value shall be paid **after shipment of the IP based General Broadcast System** and on submission of the following documents to the bank:

(1) Original Airway Bill (AWL)/ Bill of Landing (BL) must be issued by air lines/ shipping lines or authorized agent of shipping lines/ air lines against DGDP contract reference (after signing the contract). LC number, and Bangladesh bank registration number are to be mentioned in AWL/ BL. Freight amount must be shown separately otherwise only FCA value shall be paid. All documents to be submitted (01) original with at least (05) five copies other than bill of lading shall be (03) three original with (03) three copies. In addition to this, following shall also be considered:

(a) Name of the carrier must be indicated in AWL/ BL.

(b) Must be signed by carrier or a named agent for/ on behalf of the carrier.

(2) 'Supplier's Signed Commercial Invoice' for (freight/ services amount to be shown separately (if applicable)) representing 80% of CFR/CPT value as stated in the contract.

(3) "Packing List" signed by the authorized representative of the shipping company or exporter.

(4) "Certificate of Origin" signed by the Manufacturer's Authorized Person/Authorized Official of the exported country.

RESTRICTED

(5) 'Manufacturer's Certificate' Signed by the MANUFACTURER/ SUPPLIER. Certifying that product has been produced as per technical data/ analytical data and specification as per contract.

(6) "Manufacturer's Warranty Certificate" Signed by the MANUFACTURER/ SUPPLIER.

(7) "Factory Acceptance Test (FAT) Completion Certificate" signed by the SUPPLIER.

(8) 'Quality Assurance Certificate' (QAC) signed by the SUPPLIER.

(9) 'Shipment Clearance Letter' Signed by DGDP (Directorate General Defense Purchase, Dhaka, Bangladesh) as PURCHASER.

b. **2nd Installment.** 20% of CFR/CPT value shall be paid **after successfully commissioning** and on submission of the following documents to the bank:

(1) 'Supplier's Signed Commercial Invoice' for representing 20% of CFR/CPT value as stated in the contract.

(2) 'Final Acceptance Certificate' issued by the PURCHASER after successful completion of installation and commissioning of system.

(3) The bidder shall submit the relevant document of 5% BG of CFR value, which, shall be released on submission of warranty completion certificate.

c. **Installment of Training and Services.**

(1) **Local Training.** 100% cost of Local Training shall be paid **after successful completion of local training** and on submission of the following documents to the bank:

(a) 'Local Training Completion Certificate' Signed by the PURCHASER for the successful completion of the Local Training in Bangladesh.

(b) 'Supplier's Signed Commercial Invoice' for 100% of Local Training value as stated in the contract.

(2) **Installation and Acceptance.** 100% cost of Installation shall be paid **after successful completion** of Installation and final acceptance on submission of the following documents to the bank:

(a) Certificate Signed by the PURCHASER for the successful 'Completion of the Installation and Final Acceptance' in Bangladesh.

(b) 'Supplier's Signed Commercial Invoice' for 100% of Installation and Final Acceptance value as stated in the contract.

43. **Import Duties.** These are the Defence stores and shall be used by the Defence Forces only and hence are exempted from payment of Custom Duties and Sale Taxes as per ministry of finance (NBR) memo no 9(41) NBR/CUS-IV/27/246 dated 10 April 1981. Therefore, if the item is imported against this tender, price to be quoted without import duties.

44. **Terms and Conditions (DGDP).** Following terms and conditions shall governed by the tender schedule/ existing rules of Directorate General Defence Purchase (DGDP):

- a. Agency Commission.
- b. LC Amendment Charges.
- c. Insurance Charges.
- d. Liquidated Damages (LD).
- e. Arbitration.
- f. Force Majeure and War Risk.
- g. Termination of Contract.
- h. Letter of Credit.
- j. End User Certificate (EUC).

RESTRICTED

- k. Recoveries.
- l. Performance Guarantee (PG).
- m. Other Conditions.

45. **Price and Financial Offer.** Price of offered item (for each point of scope of supply) of the total offer is to be shown separately and then grand total of the foreign currency to be shown on the original offer submitted by the bidder. The BIDDER shall comply as asked in the tender specification. The BIDDER may mention the price of additional items and services in the financial offer. Item-wise price for additional item are to be mentioned for each item and services. The BIDDER may also explain the financial terms and conditions in the financial offer as appropriate. To evaluate the financial competitiveness, BIDDER has to submit the summary of financial offer as per following format:

Ser	Description	Qty	Unit Price	Currency (USD, EURO, GBP etc)	Total Value
1.	Complete set of IP Based General Broadcast & SRE System including following: a. Certification and Reports b. Drawing and Manual/ Documentation	01	To be mentioned	To be mentioned	To be mentioned
2.	Spares (Optional)	-	To be mentioned	To be mentioned	To be mentioned
3.	Total Freight on Board (FOB)	-	-	-	To be mentioned
4.	(+) Freight Charge	-	To be mentioned	To be mentioned	To be mentioned
5.	CFR Value in Foreign currency	-	To be mentioned	To be mentioned	To be mentioned
6.	CFR Value Equivalent to Bangladeshi Taka (BDT)	-	-	-	Buyer shall fill-up
7.	Local Training	-	To be mentioned	To be mentioned	To be mentioned
8.	Installation and Acceptance	-	To be mentioned	To be mentioned	To be mentioned
9.	Total Quoted Price	-	To be mentioned	To be mentioned	To be mentioned